BOSCH

Bosch Video Management System

Table of contents

1 Using the Help

> **Notice!**
> This document describes some functions that are not available for BVMS Viewer.

To find out more about how to do something in BVMS, access the online Help using any of the following methods.
To use the Contents, Index, or Search:

▸ On the **Help** menu, click **Help**. Use the buttons and links to navigate.

To get help on a window or dialog:

▸ On the toolbar, click **?** .

OR

▸ Press F1 for help on any program window or dialog.

1.1 Finding information

You can find information in the Help in several ways.
To find information in the Online Help:

1. On the **Help** menu, click **Help**.
2. If the left-hand pane is not visible, click the **Show** button.
3. In the Help window, do the following:

Click:	To:
Contents	Display the table of contents for the Online Help. Click each book to display pages that link to topics, and click each page to display the corresponding topic in the right-hand pane.
Index	Search for specific words or phrases or select from a list of index keywords. Double-click the keyword to display the corresponding topic in the right-hand pane.
Search	Locate words or phrases within the content of your topics. Type the word or phrase in the text field, press ENTER, and select the topic you want from the list of topics.

Texts of the user interface are marked **bold**.

▸ The arrow invites you to click on the underlined text or to click an item in the application.

Related Topics

▸ Click to display a topic with information on the application window you currently use. This topic provides information on the application window controls.

> **Caution!**
> Medium risk (without safety alert symbol): Indicates a potentially hazardous situation.
> If not avoided, this may result in property damage or risk of damage to the unit.
> Cautionary messages should be heeded to help you avoid data loss or damaging the system.

> **Notice!**
> This symbol indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.

1.2 Printing the Help

While using the Online Help, you can print topics and information right from the browser window.

To print a Help topic:

1. Right-click in the right pane and select **Print**.
   The **Print** dialog box opens.
2. Click **Print**. The topic is printed to the specified printer.

2   Introduction

The BVMS Viewer is an IP video security application for live viewing and playback video of Bosch network attached cameras and recorders. The software package consists of an Operator Client for live viewing and playback of video and a Configuration Client. The BVMS Viewer supports the current Bosch IP video product portfolio as well as legacy Bosch video devices.

Click the link to access the Open Source Software licenses used by BVMS Viewer: http://www.boschsecurity.com/oss.
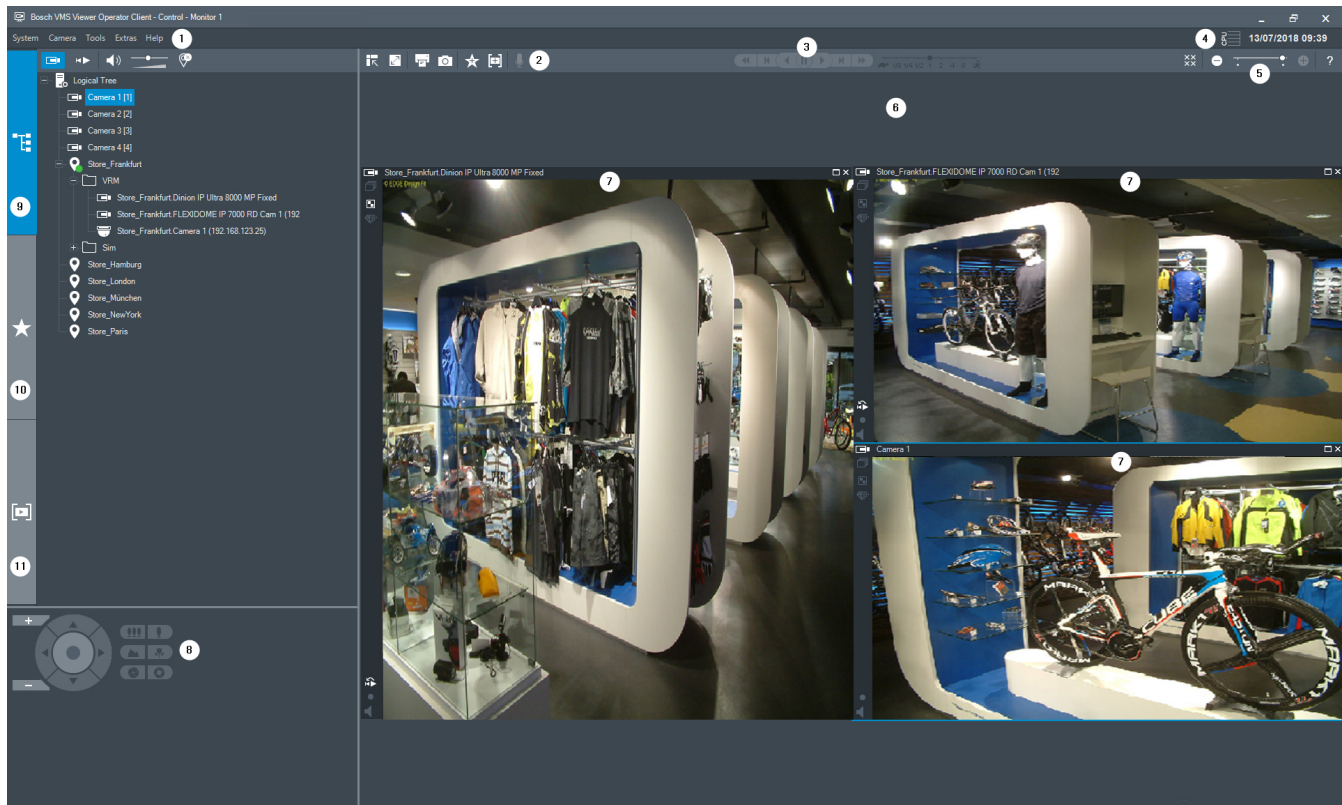
1	Menu bar
2	Toolbar
3	Instant playback control
4	Performance meter
5	Controls for Image panes
6	Image window
7	Image panes
8	PTZ Control window
9	Logical Tree window
10	Favorites Tree window
11	Bookmarks window

3 System overview

Notice!

This document describes some functions that are not available for BVMS Viewer.

Refer to the Release Notes of the current BVMS version for supported versions of firmware and hardware and other important information.
See data sheets on Bosch workstations and servers for information on computers where BVMS can be installed.
The BVMS software modules can optionally be installed on one PC.

3.1 Hardware requirements

See the data sheet for BVMS. Data sheets for platform PCs are also available.

3.2 Software requirements

Viewer cannot be installed where any other BVMS component is installed.

3.3 License requirements

See the data sheet for BVMS for the available licenses.

4   Concepts

This chapter provides background information on selected issues.

> **Notice!**
>
> This document describes some functions that are not available for BVMS Viewer.

4.1   Bosch VMS Viewer

BVMS Viewer is a free of charge variant of BVMS.

The BVMS Viewer system is an all in one BVMS solution for small to medium installations and gives the user of BVMS Viewer Operator Client access to live and recorded video data. Compared to a BVMS system, BVMS Viewer system supports only a subset of the BVMS features and devices. The software is designed for the basic video surveillance operations, like live viewing, playback video, search in recorded video and export of video data.

BVMS Viewer consists of a BVMS Operator Client and BVMS Configuration Client. Both applications show a reduced feature set compared to the two applications in BVMS.

BVMS Viewer Configuration Client is used to add devices to the system, to define the order of the device and to setup users and user preferences.

Device Configuration

Following device are supported:

–
– Digital Video Recorders
– Monitor / decoders (only digital monitor walls)
– VRM devices
– Live only and local storage cameras
– unmanaged sites

BVMS Viewer does not overwrite the configuration of the devices, the devices are added with existing configuration to BVMS Viewer. If supported by devices, the configuration of the device can be changed with BVMS Viewer.

Structure of Logical Tree

Cameras, inputs and relays can be structured in the **Maps and Structure** page of BVMS Viewer. Devices can be grouped in folders and the order of devices can be configured.

User groups

In the user group settings, users can be configured, that are allowed to access BVMS Viewer. Depending on the user group settings, users have different rights in BVMS Viewer Operator Client.

Supported features

BVMS Viewer Operator Client supports the following features:

Live viewing:

– PTZ cameras
– Favorites
– Sequences
– Instant replay
– Save and print images
– Select stream
– Bookmarks

Playback video:

- Smart Motion search
- Forensic Search
- Save and print images
- Export of video data
- Bookmarks

4.2   BVMS design concepts

Single Management Server System, page 11
A single BVMS Management Server System provides management, monitoring and control of up to 2000 cameras/encoders.

Unmanaged site, page 12
Devices can be grouped to unmanaged sites. Devices under unmanaged sites are not monitored by the Management Server. The Management Server provides a list of unmanaged sites to the Operator Client. The Operator can connect on demand to the site and gets access to live video data and recorded video data. Event and alarm handling is not available in the unmanaged site concept.

4.2.1   Single Management Server System

- A single BVMS Management Server can manage up to 2000 channels.
- A BVMS Management Server provides management, monitoring, and control of the entire system.
- The BVMS Operator Client is connected to the Management Server and receives events and alarms from the BVMS Management Server and shows live and playback.
- In most cases all devices are in one local area network with a high bandwidth and a low latency.

Responsibilities:

- Configuring data
- Event log (logbook)
- User profiles
- User priorities
- Licensing
- Event- and alarm-management

⟷   Live, playback, events, alarms
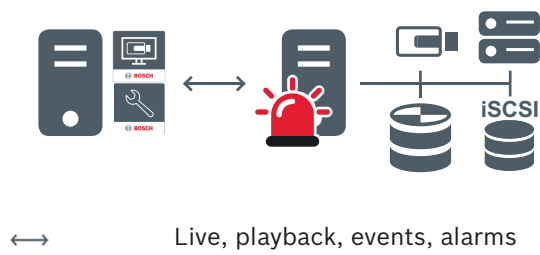
	Management Server
	Operator Client / Configuration Client
	Cameras
	VRM

	iSCSI
	Other devices

4.2.2   Unmanaged site

– A system design option in BVMS with a large number of small subsystems.
– It allows to configure up to 9999 locations in one BVMS Management Server
– Operators can access live and recorded video data from up to 20 sites simultaneously.
– For an easy navigation sites can be grouped in folders or can be placed on maps.
   Predefined username and password allow operators to quickly connect to a store.

The unmanaged site concept supports IP based BVMS system as well as analogue DVR solutions:

– Bosch DIVAR AN 3000 / 5000 analogue recorders
– DIP 3000/7000 units IP based recording
– Single BVMS Management Server System

Adding a site for central monitoring only requires a license per site and is independent of the number of channels in the site.
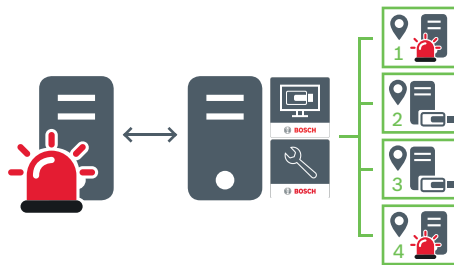
⟷	Live, playback, events, alarms
—	On demand live and playback video traffic

	Management Server
	Operator Client / Configuration Client
	Site
	DVR

4.3   Viewing modes of a panoramic camera

This chapter illustrates the viewing modes of a panoramic camera which are available in BVMS.
The following viewing modes are available:

– Circle view
– Panorama view
– Cropped view

Panorama and cropped view modes are created by the dewarping process in BVMS. Edge dewarping is not used.

The administrator must configure the mounting position of a panoramic camera in Configuration Client.

You can resize the Image pane of a camera as required. The Image pane ratio is not restricted to the 4:3 or 16:9 aspect ratio.

See also

– *Displaying a panoramic camera, page 22*
– *Switching the viewing mode of panoramic camera, page 23*
– *Arranging and resizing Image panes, page 25*

4.3.1   360° panoramic camera - floor- or ceiling mounted

The following figure illustrates the dewarping of a 360° camera which is floor- or ceiling mounted.
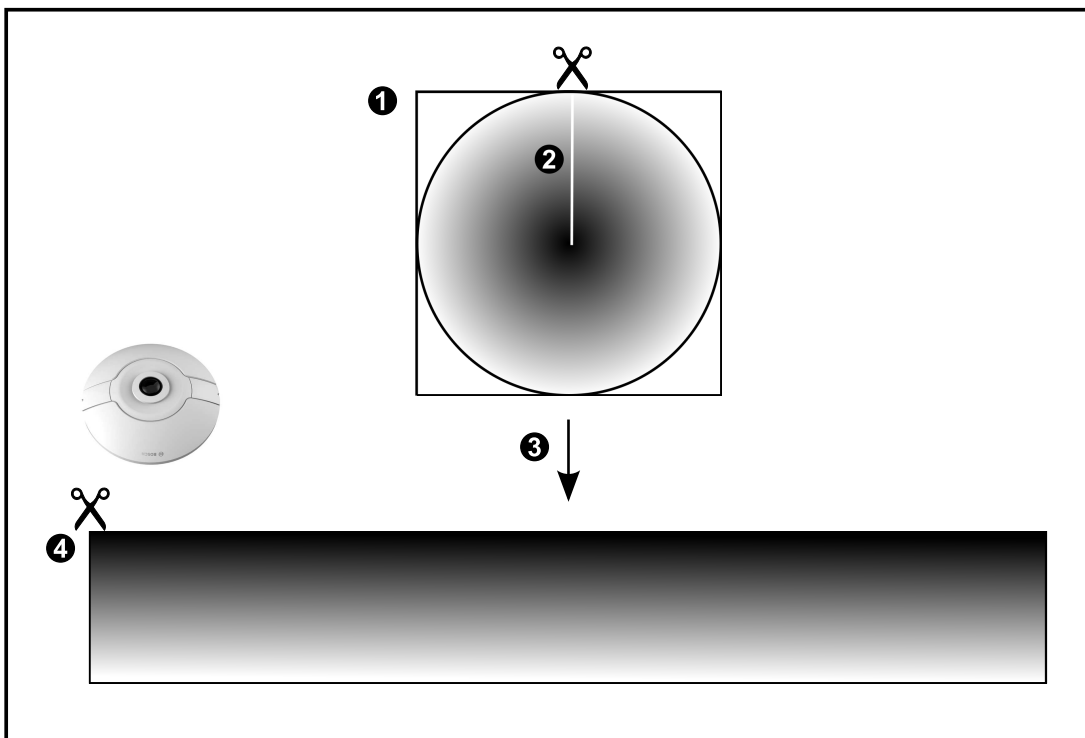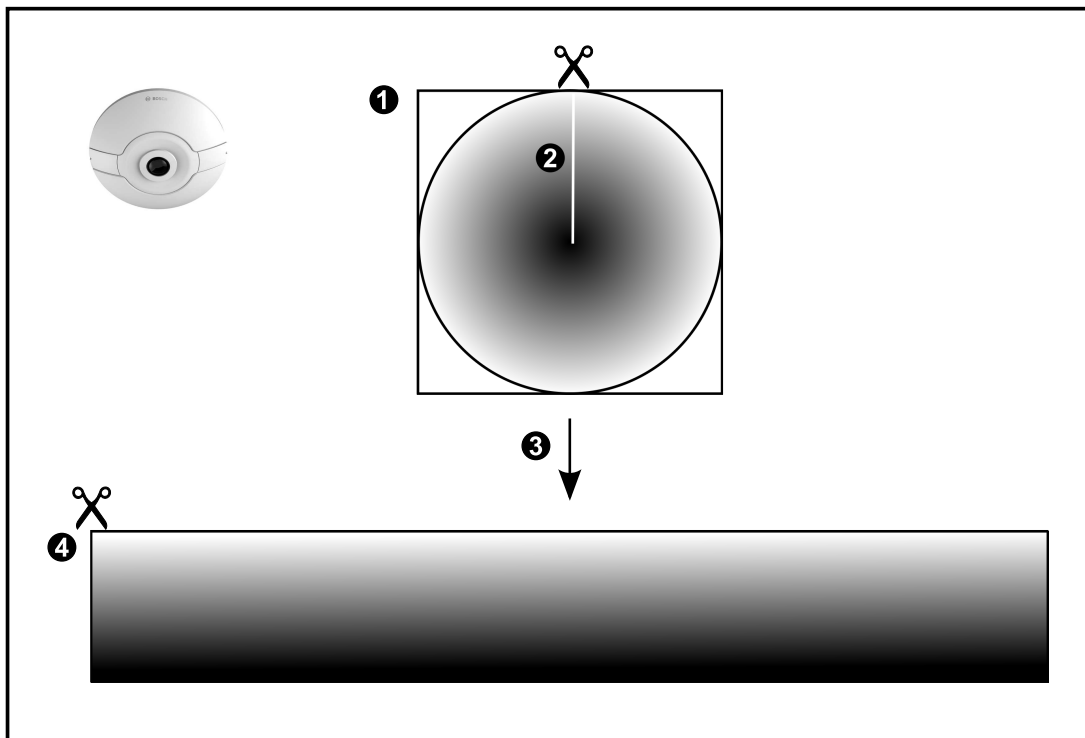
1	Full circle image	3	Dewarping
2	Snipping line (operator can change its position when not zoomed in)	4	Panorama view

4.3.2   **180° panoramic camera - floor- or ceiling mounted**
The following figure illustrates the dewarping of a 180° camera which is floor- or ceiling
mounted.
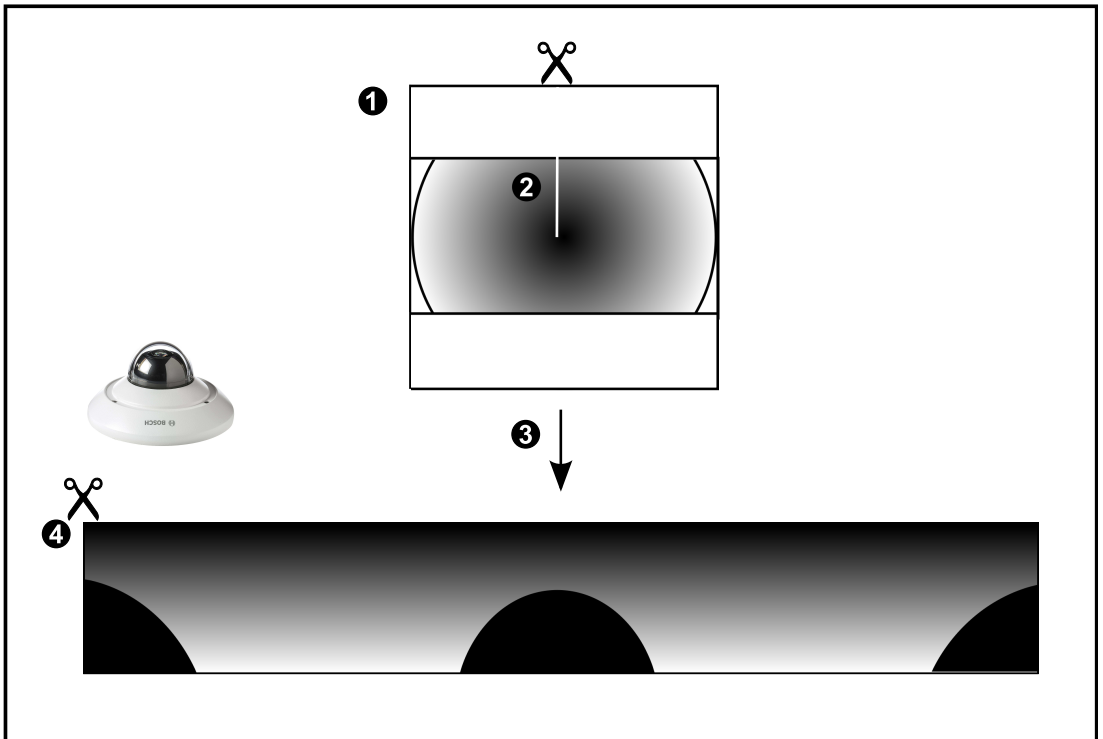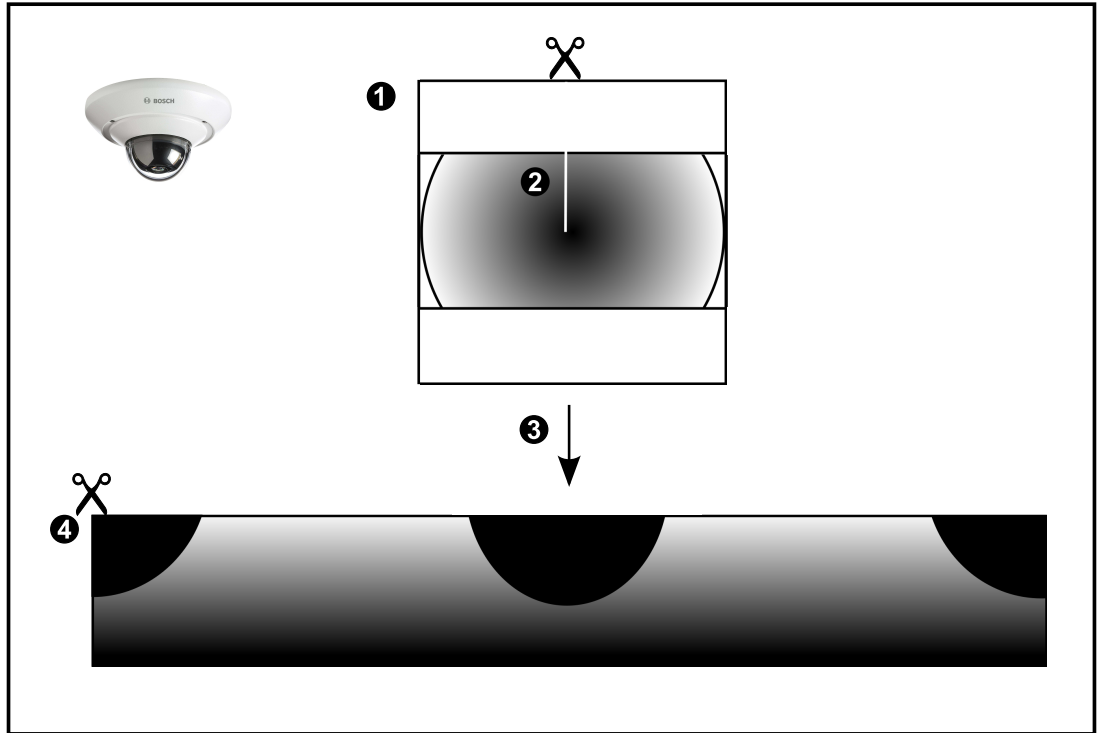
1	Full circle image	3	Dewarping
2	Snipping line (operator can change its position when not zoomed in)	4	Panorama view

4.3.3   360° panoramic camera - wall mounted

The following figure illustrates the dewarping of a 360° camera which is wall mounted.
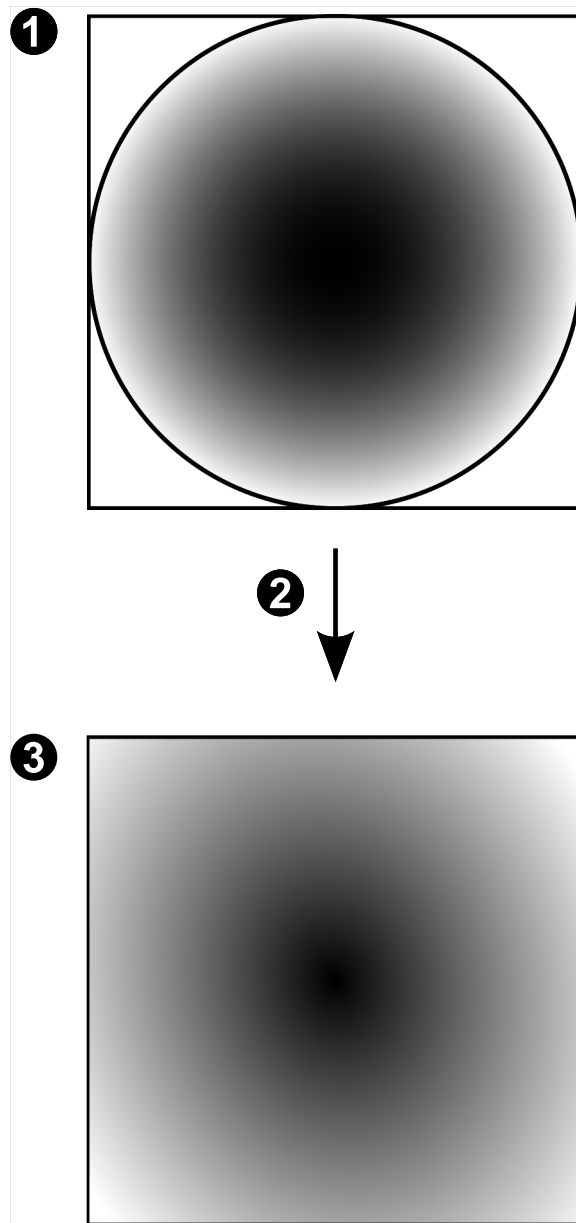
1	Full circle image	3	Panorama view
2	Dewarping		

4.3.4   **180° panoramic camera - wall mounted**

The following figure illustrates the dewarping of a 180° camera which is wall mounted.
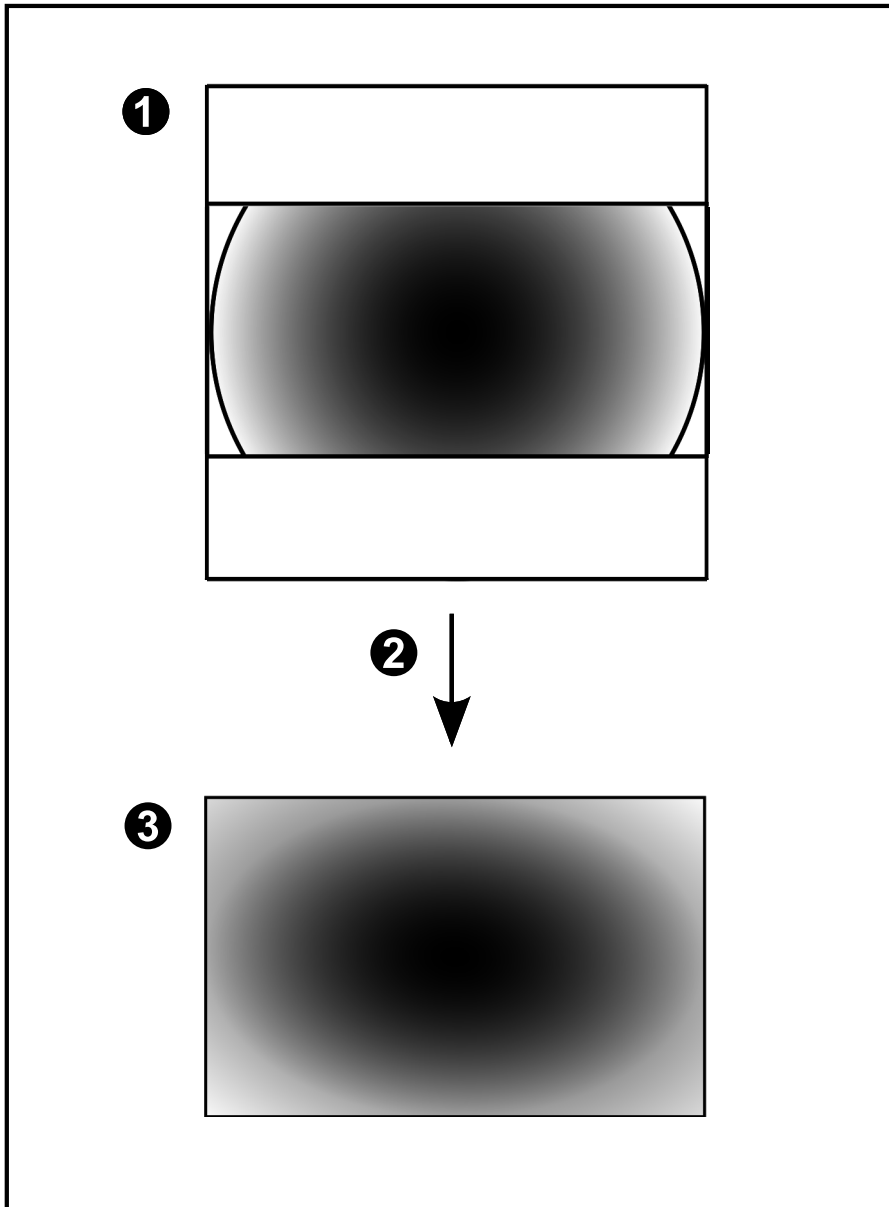
1	Full circle image	3	Panorama view
2	Dewarping		

4.3.5   Cropped view on a panoramic camera

The following example figure illustrates the cropping of a 360° camera which is floor- or ceiling mounted.

The rectilinear section used for cropping is fixed. You can change the section in the cropped Image pane using the available PTZ controls.
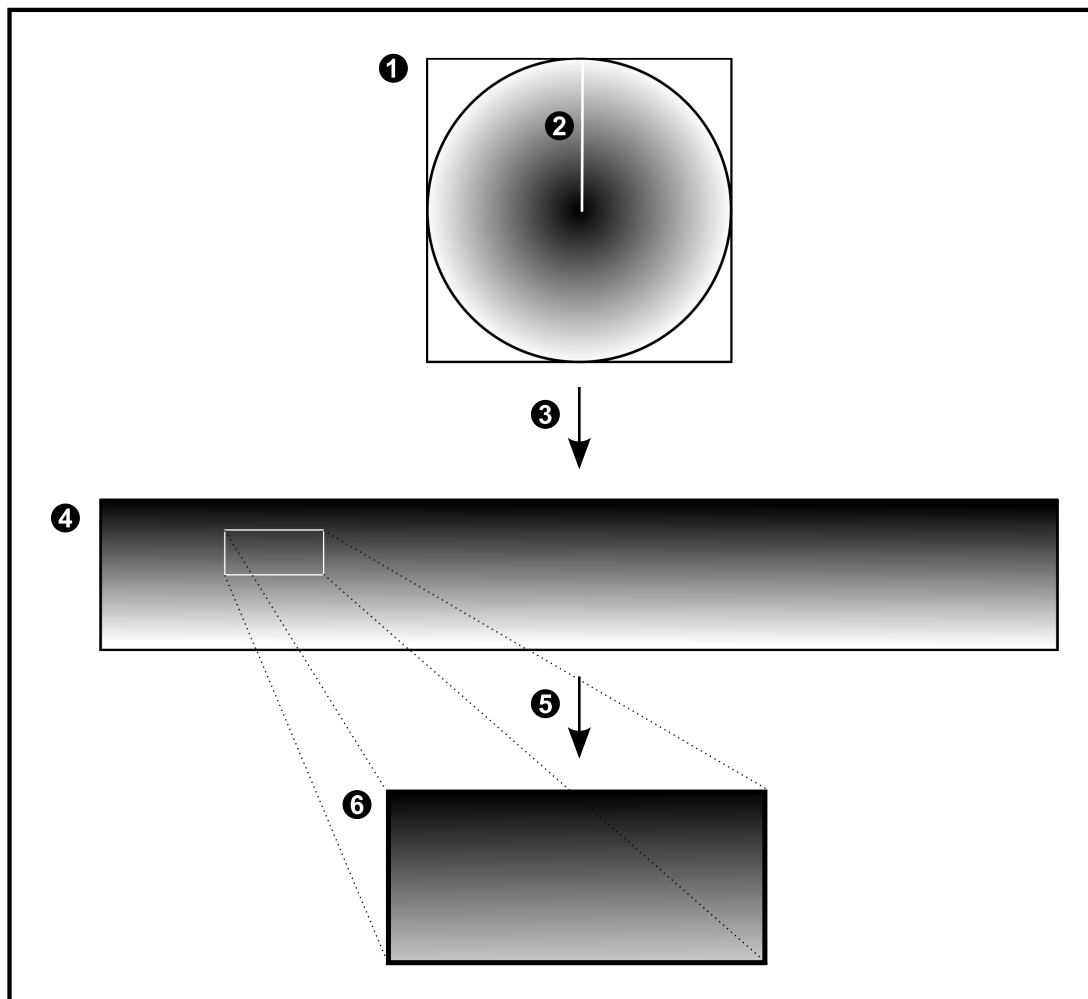
1	Full circle image	4	Panorama view
2	Snipping line (operator can change its position when not zoomed in)	5	Cropping
3	Dewarping	6	Cropped Image pane

4.4   SSH Tunneling

BVMS provides remote connectivity utilizing Secure Shell (SSH) tunneling.
SSH tunneling constructs an encrypted tunnel established by an SSH protocol/socket connection. This encrypted tunnel can provide transport to both encrypted and un-encrypted traffic. The Bosch SSH implementation also utilizes Omni-Path protocol, which is a high performance low latency communications protocol developed by Intel.

Technical aspects and restrictions

– SSH tunneling utilizes port 5322. This port cannot be modified.
– The SSH Service must be installed on the same server as the BVMS Management Server.
– User accounts must have a configured password. User accounts without a password cannot log on utilizing a SSH connection.
– Configuration Client cannot connect remotely via SSH. Configuration Client connection must be done via port mapping.
– Operator Client checks connection with SSH service every 15 seconds. If the connection is interrupted, Operator Client retests the connection every minute.

Port mapping

▸ Configure one port forwarding for the BVMS Management Server to utilize port 5322 for both internal and external connections.
  This is the only port mapping entry that you need to make for the entire system.
  BVMS port mapping is not required.

Encrypted communication

After the connection is established via a SSH tunnel, all communications between the BVMS Management Server and a remote client are encrypted.

5   Getting started

This chapter provides information on how to get started with BVMS Viewer.

5.1   Starting BVMS Viewer Operator Client

To start the BVMS Viewer Operator Client:

1.   From the **Start** menu, select **Programs** > BVMS Viewer > Operator Client or double click
      the Operator Client icon.

      The Login window of the BVMS Operator Client is displayed.

2.   Fill in the following fields:
      –   **User Name:** type your user name.
           When you start the application for the first time, enter Admin as user name, no
           password is required.
      –   **Password:** type your password.
      –   **Connection:** select BVMS Viewer to log on to BVMS Viewer.
           Note: In the **Connection:** list, by default the local BVMS Viewer is selected.
           Select **<New...>** to add the IP address of a BVMS Management Server and log on
           directly to a BVMS Management Server.
           Note: If you use a SSH connection, select **<New...>** and enter the address in the
           following format: **ssh://IP or servername:5322.**
           To use a SSH connection user accounts must have a configured password (see *SSH
           Tunneling, page 19*)

6   Displaying camera images

This chapter provides information on how to display camera images.

Some of the features described in this chapter can be deactivated for your user group.

> **Notice!**
>
> This document describes some functions that are not available for BVMS Viewer.

6.1   Selecting a time zone
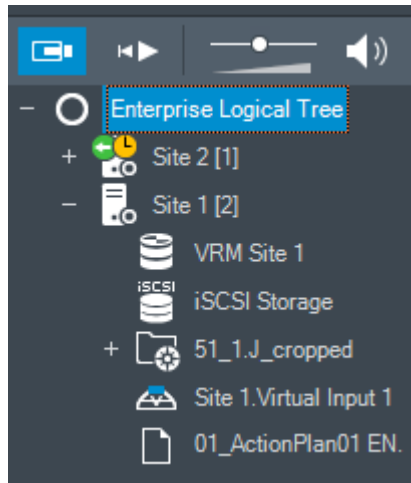
Main window

> **Notice!**
>
> Ensure that the time on all computers of your system is set correctly according to each time zone where the computers are located.

Management Server or unmanaged site and all connected devices including encoders, decoders, VRM Server computers, DiBos and DVR devices must be in the same time zone. Operator Client computers (including Client SDK and Cameo SDK) and Configuration Client computers can be in other time zones than the Management Server or unmanaged site.

If your Operator Client is located in another time zone than one or more connected Management Server or unmanaged site, you can select one of the following time displays:

– Your local time

– UTC

– Time zone of the Management Server or unmanaged site you are connected to

The Image panes displaying a camera (live and playback) always show the time of the corresponding Management Server or unmanaged site.

In the Logical Tree, 🕐 is displayed on the device icon of each server or unmanaged site that do not share the time zone that is currently selected in the Operator Client:
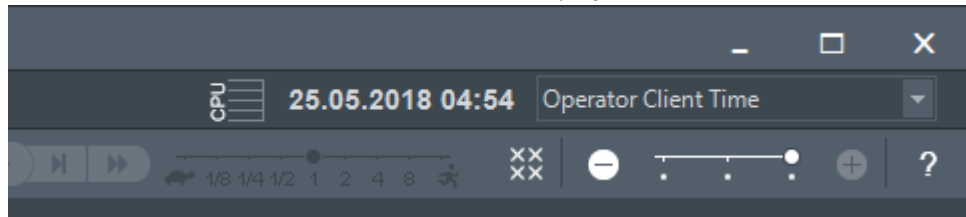

You can select the time zone of a server or unmanaged site for displaying this time zone in Operator Client.

To select the time zone:

1. In the Logical Tree, right-click a server icon to select the time zone of this server.

2. In the time zone selector list, select the desired entry.

    – **Operator Client Time**: Operator Client

- **UTC**
- **UTC-x**: time zone of each available Management Server

The time based on the selected time zone is displayed in the menu bar:

See also
– *Logical Tree window, page 55*

6.2 Displaying a camera in an Image pane

Main window

To assign a camera image to an Image pane:

▸ Drag a camera from the **Logical Tree** window to an Image pane.
  The selected camera image is displayed in the Image pane.

Or:

1. Select an Image pane.
2. In the **Logical Tree** window, double-click a camera.
   The selected camera image is displayed in the Image pane.
3. Repeat the above steps for every camera you want to display.
   You can also drag maps and documents to Image panes.

Or:

▸ In the Logical Tree, right-click a camera and click **in next free Image pane**.
  The camera is displayed.

To move a camera within the Image window:

▸ Drag the camera into another Image pane.

To zoom digitally:

▸ Rotate the wheel button forward or backward to zoom in or zoom out.

See also
– *Logical Tree window, page 55*
– *Image window, page 58*
– *Image pane, page 59*

6.3 Displaying a panoramic camera

Main window

You can display panoramic cameras. The original full image circle of a panoramic camera is automatically dewarped when displayed in an Image pane.

You can display panoramic cameras and use ePTZ in Live Mode and Playback Mode

You can select a point of interest of the panorama image for display in another Image pane. This Image pane displays the cropped image. Cropping and using ePTZ in a cropped image is possible in Live and Playback Mode.

The Image window allows a flexible resizing of the Image pane that displays a panoramic camera or any other camera.

To display a panoramic camera:

1. Drag a camera with the ⬱ icon to an Image pane.
    The camera image is displayed in panorama view.
2. Use the available control elements in the Image pane for navigating in the image.

To display a cropped image:

1. Display a panoramic camera in panorama view.
2. Press and hold the CTRL-key.
    The mouse pointer changes accordingly.
3. Click and hold a point of interest.
4. Drag the selected point to another Image pane and drop it. Release the CTRL-key.
    A section of the panorama view around the selected point is displayed.
    You can create another cropped image from this cropped image with the same procedure.
    We recommend displaying maximum 10 cropped Image panes simultaneously.
5. Use the available control elements in the Image pane for navigating in the image.

See also

6.4 Switching the viewing mode of panoramic camera

Main window

or

Main window > ▭▮ > Select an Image pane with panoramic camera > ⇲▶

You can switch the viewing mode for a panoramic camera displayed in an Image pane.

The following modes are available:

– ⬛ **Circle view**

– ⬛ **Panorama view** (initial view)

– ⬛ **Cropped view**

A panoramic camera must be configured in the Logical Tree for this user.

To switch:

▸ In the title bar of an Image pane displaying a panoramic camera, click the **Switch panoramic mode** icon and select the desired entry.

When the Image pane for this camera is closed and opened again, the **Panorama view** mode is displayed.

See also

6.5 Displaying a dual thermal/optical camera

In Operator Client you can display the thermal and optical mode of a dual camera either separately or simultaneously.

To display the desired viewing mode of the camera:

▸ Drag the camera to an Image pane

or

Select an Image pane and in the **Logical Tree** window, double-click the desired camera.

The selected camera image is displayed in the Image pane.

The viewing mode is displayed in the title bar of the Image pane:

– 👁 **Optical**

– 🌡 **Thermal**

To switch the viewing mode of the camera:

▸ In the title bar of the Image pane displaying the camera, select the desired viewing mode.

To display the thermal and optical mode of the camera simultaneously:

1. Select the Image pane displaying the camera.
2. Press the CTRL-key and drag and drop the camera image to another Image pane.

The second viewing mode of the camera is displayed in the new Image pane.

6.6 Changing the number of Image pane rows

Main window

You can change the number of Image pane rows displayed in the Image window.

To show fewer Image pane rows:

▸ On the **Tools** menu, click **Show fewer Image pane rows**

or

Move the **Change Image pane rows** slider to the left

or

Click

or

Press F7.

To show more Image pane rows:

▸ On the **Tools** menu, click **Show more Image pane rows**

or

Move the **Change Image pane rows** slider to the right

or

Click

or

Press F8.

ℹ **Notice!**

The maximum number of Image pane rows displayed in the Image window is configured in the BVMS Configuration Client.

If you have reached this number, the **Show more Image pane rows** menu command and the

 button are disabled.

If the maximum number of Image pane rows has been set to 1, the **Change Image pane rows**

slider is not displayed.

> **Notice!**
>
> This limitation does not affect the BVMS Archive Player.

6.7 Arranging and resizing Image panes

Main window

To arrange Image panes:

1. Drag an item from the **Logical Tree** window to an Image pane. Repeat this until all required cameras are displayed.
   If an object is already displayed in a target Image pane, this object is replaced.
2. Drag a camera from one Image pane to another, if required.

To resize an Image pane:

1. Point to a border or corner of an Image pane. The pointer appears as a double-headed arrow.
   You can resize diagonally, vertically or horizontally.
   The resulting size of the Image pane is limited to the grid of the select Image pane pattern.
   The Image pane ratio is not restricted to the 4:3 or 16:9 aspect ratio.
2. Drag to resize the Image pane.

See also

6.8 Starting a pre-configured camera sequence

Main window

With a camera sequence, a group of cameras are displayed one after the other. The pre-configured camera sequences are configured in the Configuration Client and appear in the Logical Tree.

A sequence is configured to use more than one Image pane in Operator Client or on the monitor wall. If there are not enough Image panes or monitor panes to display the whole sequence, only those panes are displayed which fit into the Image window. The remaining panes are not displayed and an appropriate message is displayed.

Under the following conditions, a sequence is not being displayed:

– Video loss
– Connection to the camera lost
– No permission to display the camera
– Camera not configured

In addition, for sequences displayed on an analog monitor via a decoder, DiBos cameras cannot be displayed.

> **Notice!**
>
> When the configuration is changed and activated, a camera sequence (pre-configured or automatic) usually is continued after restart of the Operator Client.
> But in the following cases the sequence is not continued:
> A monitor where the sequence is configured to be displayed has been removed.
> The mode of a monitor (single/quad view) where the sequence is configured to be displayed has been changed.
> The logical number of a monitor where the sequence is configured to be displayed is changed.

To start and control a camera sequence:

1. Drag the required sequence from the **Logical Tree** window to an Image pane or to a monitor wall.

   The sequence is displayed indicated by the symbol when running in an Image pane.
2. When running in an Image pane: Click a playback control icon of the Image window toolbar to control the sequence.

See also
– *Image pane, page 59*

6.9   Starting an automatic camera sequence

Main window

With a camera sequence, a group of cameras are displayed one after the other.
You configure the dwell time for these sequences in the **Options** dialog box (**Extras** menu, **Options...** command).
Under the following conditions, a sequence is not being displayed:
– Video loss
– Connection to the camera lost
– No permission to display the camera
– Camera not configured
In addition, for sequences displayed on an analog monitor via a decoder, DiBos cameras cannot be displayed.

Notice!

When the configuration is changed and activated, a camera sequence (pre-configured or automatic) usually is continued after restart of the Operator Client.
But in the following cases the sequence is not continued:
A monitor where the sequence is configured to be displayed has been removed.
The mode of a monitor (single/quad view) where the sequence is configured to be displayed has been changed.
The logical number of a monitor where the sequence is configured to be displayed is changed.

To start a camera sequence:
1. Select an Image pane where you want the sequence to be played.
2. Right-click a folder in the **Logical Tree** or **Favorites Tree** window and click **Show as sequence in selected Image pane**.
   The cameras of the selected folder are displayed one after the other in the selected Image pane. indicates that the sequence is running.

To pause a camera sequence:

▸   In the Image window toolbar, click .

   The sequence stops playing, as indicated by .

To jump to the previous / next step of a camera sequence:

▸   In the Image window toolbar, click or .
   The sequence jumps to the previous or next step.

See also
–   *Options dialog box, page 54*

6.10   Using one channel audio mode

Main window

You use one channel audio mode when you want to hear only one audio source assigned to a camera. You cannot activate audio for another camera.

To activate / de-activate multichannel audio mode:

1.   On the **Extras** menu, click **Options...**.
2.   Select the **Playback audio of the selected Image pane** check box.

See also
–   *Options dialog box, page 54*

6.11   Using multichannel audio mode

Main window

You use multichannel audio mode when you want to hear different audio sources at the same time. You can activate different audio sources assigned to a camera in the Image pane of each camera.

To activate / de-activate multichannel audio mode:

1.   On the **Extras** menu, click **Options...**.
2.   Select the **Multichannel audio playback** check box.

See also
–   *Options dialog box, page 54*

6.12   Saving a single image

Main window

To save a single image:

1.   Select an Image pane.

2.   Click   .
    A dialog box for saving the image file is displayed.
3.   Select the desired directory, enter a file name, and select the desired file type. JPG and BMP are available.
4.   Click **OK**.
    The image is saved. The file contains additional information about the camera.
    If you logged on to an Enterprise Management Server, the camera name is displayed with the name of this camera's Management Server as a prefix.

See also
–   *Image pane, page 59*

6.13   Printing a single image

Main window

To print a single image:

1.   Select an Image pane.

2.   Click   .
    A dialog box for selecting the printer is displayed.

3. Click **OK**.

The image is printed. The printout contains additional information about the camera.

If you logged on to an Enterprise Management Server, the camera name is displayed with the name of this camera's Management Server as a prefix.

See also

– *Image pane, page 59*

6.14 Switching to full-screen mode

Main window

Full-screen mode hides many control elements, for example the menu commands or the Alarm List if no alarm monitor was switched to full-screen mode. For accessing these control elements, leave the full-screen-mode.

To display the entire Image window in full-screen mode:

▶ On the Image window toolbar, click .

The Image window is displayed in full-screen mode.

To leave the full-screen mode:

▶ Click .

To maximize a selected Image pane:

▶ Right-click an Image pane and click **Maximize**.

The selected Image pane is displayed using the entire Image window.

See also

– *Image window, page 58*

6.15 Displaying or hiding the Image pane bars

Main window

To display / hide the toolbars:

▶ Click to display the toolbars.

Click to hide the toolbars.

See also

– *Image window, page 58*

6.16 Enabling video content analysis (VCA)

Main window

To enable:

▶ Right-click an Image pane with a camera assigned and click **Enable Content Analysis**.

The VCA overlays are displayed. This setting is retained after the next restart or re-logon of Operator Client or after closing the camera and displaying it again in an Image pane.

To disable:

▶ Right-click an Image pane with a camera assigned and click **Disable Content Analysis**.

The VCA overlays disappear.

6.17 Showing video content analysis (VCA) rules

Main window

To show VCA rules:

▸   Right-click an Image pane with a camera assigned and click **Show Content Analysis rules**.
    The VCA rules are displayed.
    This setting is not persistent after the next restart or re-logon of Operator Client or after
    closing the camera and displaying it again in an Image pane.

To hide VCA rules:

▸   Right-click an Image pane with a camera assigned and click **Hide Content Analysis rules**.
    The VCA rules disappear.

6.18   Starting instant playback

Main window >

You can view the recordings of a camera in an Image pane in the Live Mode.
If configured you can change the recording source.
The current setting of the digital zoom and the image section are used for instant playback.
The start time (number of seconds in the past or rewind time) for instant playback is
configured in the **Options** dialog box (**Extras** menu, **Options...** command).

To start instant playback:

1.   Select the required Image pane.

2.   Click .
     The recording is played.

3.   Switch to the desired recording source if available.
     Note: After switching the recording source the rewind time can deviate from the
     configured value.

▸   To return to live image, click .

Note: More than one Image pane with instant playback is possible, even multiple instant
playbacks of the same camera.

See also

–   *Image pane, page 59*

6.19   Assigning a camera to a monitor

Main window >   >

You can assign IP devices to a decoder. This displays the video signal on the analog monitor
and plays the audio signal on the speakers if connected to the decoder. DiBos and Bosch
Allegiant cameras cannot be assigned this way.

To assign a camera image to a monitor:

▸   Drag a camera from the   window to the desired monitor in the Image pane.

6.20   Displaying an Analog Monitor Group

Main window >   >

To assign an Analog Monitor Group to an Image pane:

1.   Drag an Analog Monitor Group from the **Logical Tree** window to an Image pane.

2.   The selected Analog Monitor Group is displayed in the Image pane.

Or:

1.   Select an Image pane.

2.   In the **Logical Tree** window, double-click an Analog Monitor Group.

3.   The selected Analog Monitor Group is displayed in the Image pane.

6.21   Connecting to an unmanaged site

Main window

You can connect to an unmanaged site. All available devices of all video network devices of this site are then displayed in the Logical Tree. As soon as you log off or exit Operator Client, this connection is terminated.

To connect:

1.   Right-click   .

2.   Click **Connect to Site**.

As long as the device is connecting,   is displayed.

After the connection is successfully established,   is displayed.

All available devices of this site are displayed in the Logical Tree.

If not all devices belonging to this site can be connected,   is displayed. You can later try to connect the remaining devices that were not connected now.

Tip: You can also double-click   to connect.

To connect remaining devices:

1.   Right-click   .

2.   Click **Retry Connection**.

To disconnect a single site:

1.   Right-click   or   .

2.   Click **Disconnect from Site**.

The icon changes:

All Image panes with devices belonging to this site are automatically closed.

To disconnect all sites:

▶   Click   .

All sites are disconnected. Partially connected sites are not disconnected.

All Image panes with devices belonging to this site are automatically closed.

See also

–   *Unmanaged site, page 12*

7 Using maps and the PTZ cameras

Notice!

This document describes some functions that are not available for BVMS Viewer.

This chapter provides information on how to use the **Map** window and the **PTZ Control** window.

You can view a map in the required ratio and zooming factor. Hence, you see all your devices and their places at a glance.

You can activate that the map of the camera in the selected Image pane is automatically getting the focus. This map is displayed in the **Map** window of the **Control** monitor.

Some of the features described in this chapter can be deactivated for your user group, your Enterprise User Group or your Enterprise Account.

7.1 Controlling PTZ cameras

Main window >   tab

You can zoom and control the cameras in the **PTZ Control** window or in the Image pane.

The digital zoom function is not available for dome and pan/tilt cameras.

Notice!

When controlling a MIC 500 PTZ camera, focus near and focus far are permuted. You can switch the behavior directly on the device.

Controlling/zooming cameras in the PTZ Control window:

1. Select the required Image pane.
2. Click the various control elements in the **PTZ Control** window to control the camera.

To move to a preposition of a PTZ camera on a map:

1. Display a map containing a PTZ camera hot spot in an Image pane.
2. Right-click a PTZ camera located on a map, point to **PTZ positions**, and then click the desired preposition command.
   The camera moves the focus to the selected preposition.

To lock the control of a PTZ camera on a map:

1. Display a map containing a PTZ camera hot spot in an Image pane.
2. Right-click a PTZ camera located on a map and click **Lock**.
   The PTZ control of this camera is locked for other users.
3. To unlock: Right-click the locked PTZ camera and click **Unlock**.

See also

– *PTZ Control window, page 58*

7.2 Using in-window control of a camera

Main window

After you have assigned a PTZ camera to an Image pane, you can use the camera control functions directly in this Image pane.

To use the pan and tilt function:
1. Move the cursor on the Image pane which displays a PTZ camera.

    The cursor changes to ✛.
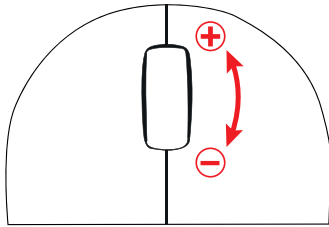2. Press and hold the mouse button.

    The cursor changes to ◯.
    To pan and tilt the image slowly, move the mouse slightly in the desired direction.
    To pan and tilt more quickly, move the mouse further.

To use the optical zoom function:
– To zoom in, rotate the wheel button forward.
– To zoom out, rotate the wheel button backward.

See also
– *Image pane, page 59*

8   Using favorites and bookmarks

This chapter provides information on how to use the Favorites Tree and the Bookmark Tree.

Favorites Tree

You can add every item of the Logical Tree to a view in the Favorites Tree to create your own subset of the Logical Tree. At any time you can display the view or add or delete devices in a view.

When saving a view in the Favorites Tree, you save the following settings:

– The assignment of cameras or other objects to Image panes
– The Image pane pattern
– The current setting of the digital zoom
– The image section
– The selected stream (only available for Live Mode)

Bookmark Tree

You can save a time period of live view or a recording in a bookmark. A bookmark saves a start and an end time, the cameras assigned to Image window at this time, and the entire Image

pane pattern. A time period of 0 seconds is possible. Bookmarks are saved in the [icon] pane. Deleting a bookmark does not affect the corresponding recordings. You cannot add or remove cameras from a bookmark. To change a bookmark, load it, make your changes and save it.

If a recording is deleted, the corresponding bookmark is not synchronized. If loaded, a black Image pane is displayed.

If you have logged on to an Enterprise Management Server, the camera name is displayed with the name of this camera's Management Server as a prefix.

Note: Do not add more than 4 cameras in one bookmark to avoid performance issues when loading the bookmark.

---

i   **Notice!**

This document describes some functions that are not available for BVMS Viewer.

See also
– *Favorites Tree window, page 55*

8.1   Adding items to the Favorites Tree

Main window > [icon] > [icon] tab

or

Main window > [icon] > [icon] tab

You can add each item of the Logical Tree to the Favorites Tree. This allows you to define your own subset of the Logical Tree.

To add an item:

▶ Right-click an item and click **Add To Favorites**.

See also
– *Logical Tree window, page 55*

– *Favorites Tree window, page 55*

8.2   Creating/editing views

Main window > ▭ɪ > ★ tab

or

Main window > ▯▶ > ★ tab

After having assigned cameras, maps, and HTML files to Image panes, you can save this assignment and the Image pane pattern in a view in the Favorites Tree.

To create a new view:
1.   Arrange the cameras in the Image window in Live Mode and in Playback Mode.
2.   If desired, use the digital zoom and select an image section.
       When displaying a view, the live image of the camera is displayed in Live Mode and the recorded video of the camera is displayed in Playback Mode.

3.   In the Image window toolbar, click ★ .

       A new view ▦ is added. Enter a name for the new view.

Limitation for unmanaged sites: You can create a view of cameras from maximum 20 unmanaged sites.

To display a view:
▸   Double-click the view or right-click the view and click **Load Image pane view**.
     The assignment saved in this view is displayed in the Image window.

i	**Notice!** The maximum number of Image pane rows displayed in the Image window is configured in the BVMS Configuration Client. If this number has been changed since the last log off from Operator Client and the number of Image pane rows in the saved view exceeds the maximum set by system parameter, the saved view cannot be displayed and a warning is displayed. You can display the view without the excess rows.

Displaying a view for unmanaged sites
When you load a view for cameras from unmanaged sites, the assignment saved in this view is displayed in the Image window and the unmanaged sites are connected automatically.
If the connection takes more than 3 seconds the **Connecting** dialog box is displayed showing the connection progress.
▸   To cancel the connection process, click **Cancel**.
     No further unmanaged sites are connected and no further camera images are loaded.
     The unmanaged sites which have already been connected remain connected and the camera images which have already been loaded remain open.

If there are connection problems, the unmanaged sites which could not be connected are displayed in the **Connecting** dialog box.
▸   After the connection process has finished, click **OK**.

If the number of already connected unmanaged sites and unmanaged sites assigned to the Favorite view exceeds the maximum number of 20 connected sites, a warning message is displayed.

▸   Click **No** to cancel.
Or
Click **OK** to continue.
If you continue, the unmanaged sites which are already connected but are not assigned to the Favorite view are disconnected and only unmanaged sites which are assigned to the Favorite view are connected.

To edit a view:

1.   Double-click the view [icon] which you want to edit.
2.   Make the required changes, for example assign cameras to Image panes.
3.   Right-click the required view and click **Update Image pane view**.

To rename a view:

1.   Right-click the required view [icon] and click **Rename**.
2.   Enter the name of the view and press ENTER.

To delete a view:

▸   Right-click the view and click **Remove**.
The view is removed from the Favorites Tree.

See also
–   *Favorites Tree window, page 55*

8.3   Adding a bookmark

Main window >   [icon]   > Assign desired cameras to Image panes
or

Main window >   [icon]   > Assign desired cameras to Image panes

To add a bookmark:
1.   Using the Hairline, select the time period on the Timeline.

2.   In the toolbar, click [icon].
The **Add Bookmark** dialog box is displayed.
If you logged on to an Enterprise Management Server, the camera name is displayed with the name of this camera's Management Server as a prefix.
3.   The selected time period is copied to the appropriate fields.
4.   Make changes if required.
5.   Click **OK**.
✓   The bookmark is saved in the Bookmark Tree.

See also
–   *Add Bookmark dialog box, page 56*

8.4   Editing a bookmark

Main window > ▭▪ > ▣ tab

or

Main window > ◄► > ▣ tab

To edit a bookmark:
1.   Right-click a bookmark and click **Edit Bookmark**.
      The **Edit Bookmark** dialog box is displayed.
2.   Make changes if required.
3.   Click **OK**.
✓   The bookmark is saved in the Bookmark Tree.

See also
–   *Add Bookmark dialog box, page 56*

8.5   Loading a bookmark

Main window > ▭▪ > ▣ tab

or

Main window > ◄► > ▣ tab

To display a bookmark:
▶   Drag a bookmark to the Image window. The entire Image window layout saved in the
      bookmark is displayed in the Timeline. The Hairline is positioned at the start time of the
      bookmark.
✓   The previous Image window is overwritten.

ℹ

Notice!
The maximum number of Image pane rows displayed in the Image window is configured in the
BVMS Configuration Client. If this number has been changed since the last log off from
Operator Client and the number of Image pane rows in the saved bookmark exceeds the
maximum set by system parameter, the saved view cannot be displayed and a warning is
displayed.
You can display the view without the excess rows.

See also
–   *Bookmarks window, page 56*

8.6   Exporting bookmarks

To export bookmarks:

To export bookmarks:

1.   Click the ▣ tab.
2.   Right-click a bookmark.

---

3.   To export a single bookmark click **Export Bookmark**.
     The **Export Bookmark** dialog box is displayed.
     Or
     To export multiple bookmarks click **Export Multiple Bookmarks**.
     The **Export Video** dialog box is displayed.
4.   Make the appropriate settings.
     If you want to encrypt the exported files, type in a password and confirm this password.
5.   Click **Export**.
     The size of the recordings to be exported is estimated. Overlappings of recordings are subtracted. If free space is not enough, an error message is displayed.
     The authenticity of the export is automatically verified.
     The recordings are exported to the selected data medium.
6.   If available, click **Verification Details** to display the **Authenticity Verification Result** dialog box. If no authentication issues were found, the **Verification Details** button is inactive.

See also

9   Managing recorded videos

This chapter provides information on how to manage recordings.

Some of the features described in this chapter can be deactivated for your user group.

> **Notice!**
>
> This document describes some functions that are not available for BVMS Viewer.

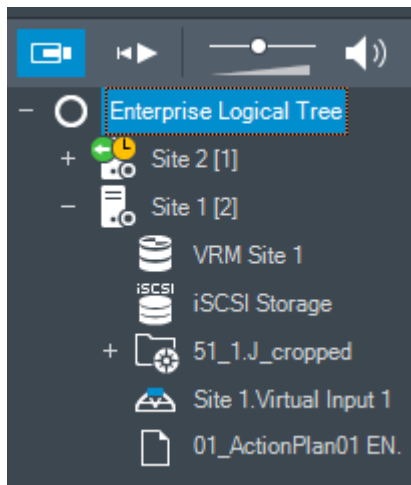## 9.1   Selecting a time zone

Main window

> **Notice!**
>
> Ensure that the time on all computers of your system is set correctly according to each time zone where the computers are located.

Management Server or unmanaged site and all connected devices including encoders, decoders, VRM Server computers, DiBos and DVR devices must be in the same time zone. Operator Client computers (including Client SDK and Cameo SDK) and Configuration Client computers can be in other time zones than the Management Server or unmanaged site.

If your Operator Client is located in another time zone than one or more connected Management Server or unmanaged site, you can select one of the following time displays:

– Your local time
– UTC
– Time zone of the Management Server or unmanaged site you are connected to

The Image panes displaying a camera (live and playback) always show the time of the corresponding Management Server or unmanaged site.

In the Logical Tree, 🕐 is displayed on the device icon of each server or unmanaged site that do not share the time zone that is currently selected in the Operator Client:
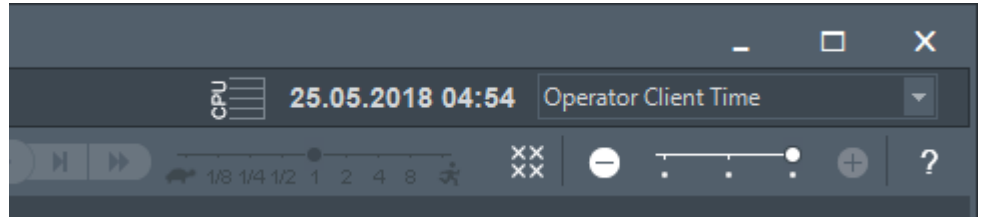

You can select the time zone of a server or unmanaged site for displaying this time zone in Operator Client.

To select the time zone:

1. In the Logical Tree, right-click a server icon to select the time zone of this server.
2. In the time zone selector list, select the desired entry.
   – **Operator Client Time**: Operator Client

    – **UTC**
    – **UTC-x**: time zone of each available Management Server
    The time based on the selected time zone is displayed in the menu bar:

See also
– *Logical Tree window, page 55*

9.2 Playing recorded videos

See also
– *Timeline window, page 59*
– *Using the Timeline, page 39*

9.3 Using the Timeline

You can access a specific time in the Timeline via the Hairline.

To navigate in the Timeline:

▸ Click somewhere in the Timeline.

The images of the selected point in time are displayed in the Image window.

Or:

1. In the date and time field, enter the required values.

2. Click ⇥|⇤.

The Hairline jumps to this time. The images of the entered point in time are displayed in the Image window. Use a Timeline control for the required playing option.

You can select a time period in the Timeline using the Hairline. You can use this selection for further tasks such as for exporting video data.

▸ Drag the bottom handles of the Hairline to select a time period or to change this selection.

Drag the upper handles to move the hairline or selection.

See also
– *Timeline window, page 59*
– *Playing recorded videos, page 39*

9.4 Changing the playback speed

To change the playback speed for playing a video forward or reverse:

▸ Move the slider to the left to decrease the playback speed, and to the right to increase the playback speed.

Note: If you set the playback speed to 4x or higher, not all frames will be displayed.

See also
– *Timeline window, page 59*

9.5　　Restricting video

Main window > 〔icons〕 > **Timeline** menu

You can restrict the recordings of cameras connected to the following DIVAR AN devices:
- DIVAR AN 3000
- DIVAR AN 5000

When restricted, an unauthorized user cannot display the recordings of these cameras.

The DIVAR AN devices can be connected to BVMS either locally under 〔icon〕 or as an

unmanaged site under 〔icon〕 .

For restricting you need the corresponding permission.

〔i icon〕	**Notice!** Unrestricting / unprotecting a selected time period can possibly unrestrict / unprotect the entire contiguous restricted / protected time period of this camera, even outside the selected time period.

To restrict:
1. Using the Hairline, select the time period of one or more DIVAR AN cameras on the Timeline.
2. Right-click this time period and click **Restrict video...**.
   The **Restrict Video** dialog box is displayed.
3. Click **Restrict**.
   A message box is displayed showing detailed information on the time period that is effectively restricted. Usually this time period is larger than the selected time period. The video data is restricted. In the Timeline, restricted video is indicated with red diagonal stripes: 〔striped icon〕

Note:
To remove the restriction, select the restricted period in the Timeline, right-click, and then click **Unrestrict video...**.

See also
- *Restrict Video dialog box, page 61*
- *Unrestrict Video dialog box, page 62*

9.6　　Protecting video

Main window > 〔icons〕 > 〔clock icon〕 tab

You can protect the images of the displayed cameras against being overwritten or deleted.

〔i icon〕	**Notice!** You cannot protect the data of a local storage device.

1. Using the Hairline, select the time period on the Timeline.

2.   Right-click this time period and click **Protect video...**.
      The **Protect Video** dialog box is displayed.
      The selected time period is copied to the **Start:** and **End:** fields.
      If required, change the values.

3.   Click **Protect**.
      The video data is protected. In the Timeline, procted video is indicated with white
      diagonal stripes:

Note:
To remove the protection, select the protected period in the Timeline, right-click and click
Unprotect video....

See also
–   *Protect Video dialog box, page 63*
–   *Timeline window, page 59*

9.7   Deleting video data

Main window >   ⏮▶   >   ⏰ tab

Note: You cannot restore deleted video data.
You can delete video data from the beginning of the recording to the position of the hairline.
The video data of all cameras available in the Timeline are deleted.
VRM recordings: Protected recordings are not deleted.
NVR recordings: When protected recordings are available, the deleting is not started.

> **ⓘ**   **Notice!**
>   You cannot delete the data of a local storage device.

To delete video:
1.   Move the Hairline to the desired position on the Timeline.
      On the **Timeline** menu, click **Delete video...**.
      The **Delete Video** dialog box is displayed.
2.   Make the appropriate settings.
For detailed information on the various fields, see the Online Help for the appropriate
application window.
▶   Click **Delete**.
      Confirm the warning message.
      When deleting is finished, click **Done**.

See also
–   *Delete Video dialog box, page 60*
–   *Timeline window, page 59*
–   *Delete Video dialog box, page 64*

9.8 Exporting video data

Notice!

You cannot export the data of a local storage device.

Exporting video data is possible as follows:

– *Exporting bookmarks, page 42*
– *Exporting a time period, page 43*
– *Exporting a single search entry, page 43*

Exports can be created in different formats:

– **Native format**
– ASF
– MOV

Exports can be saved to different targets:

– HDD
– CD/DVD

See also

– *Export Bookmark dialog box, page 66*
– *Export Multiple Bookmarks dialog box, page 68*
– *Export Video dialog box, page 64*
– *Timeline window, page 59*
– *Video Search Results window, page 70*

9.8.1 Exporting bookmarks

To export bookmarks:

1. Click the [icon] tab.
2. Right-click a bookmark.
3. To export a single bookmark click **Export Bookmark**.
   The **Export Bookmark** dialog box is displayed.
   Or
   To export multiple bookmarks click **Export Multiple Bookmarks**.
   The **Export Video** dialog box is displayed.
4. Make the appropriate settings.
   If you want to encrypt the exported files, type in a password and confirm this password.
5. Click **Export**.
   The size of the recordings to be exported is estimated. Overlappings of recordings are subtracted. If free space is not enough, an error message is displayed.
   The authenticity of the export is automatically verified.
   The recordings are exported to the selected data medium.
6. If available, click **Verification Details** to display the **Authenticity Verification Result** dialog box. If no authentication issues were found, the **Verification Details** button is inactive.

9.8.2 Exporting a time period

Notice!
Only available in Playback Mode.

To export a time period:

1. Click the ➔|← tab.
2. Using the Hairline, select the time period on the Timeline.
3. Click ⬆.
   The **Export Video** dialog box is displayed.
   The selected time period is copied to the **Start:** and **End:** fields.
4. Make the appropriate settings.
   If you want to encrypt the exported files, type in a password and confirm this password.
5. Click **Export**.
   The size of the recordings to be exported is estimated. Overlappings of recordings are subtracted. If free space is not enough, an error message is displayed.
   The authenticity of the export is automatically verified.
   The files are exported to the selected data medium.
6. If available, click **Verification Details** to display the **Authenticity Verification Result** dialog box.

9.8.3 Exporting a single search entry

Notice!
Only available in Playback Mode.

To export a single search entry:

1. Perform a search for video data.
2. Click the 🔍 tab or the 🔍 tab.
3. Click an entry in the search result list.
4. Click ⬆.
   The **Export Video** dialog box is displayed.
5. Make the appropriate settings.
   If you want to encrypt the exported files, type in a password and confirm this password.
6. Click **Export**.
   The authenticity of the export is automatically verified.
   The entry is exported to the selected data medium.
7. If available, click **Verification Details** to display the **Authenticity Verification Result** dialog box.

9.9 Exporting into a single file

You can export video recordings into a single ZIP file.

To export:
1. Enter the desired start and end times.
2. Click to select **Export as single ZIP file**.
3. Make the appropriate settings.
   If you want to encrypt the exported files, type in a password and confirm this password.
4. Click **Export**.
   The size of the recordings to be exported is estimated. If free space is not enough, an error message is displayed.
   The authenticity of the export is automatically verified.
   The recordings are exported and the export is added to a single ZIP file.
5. If available, click **Verification Details** to display the **Authenticity Verification Result** dialog box.

> **i**
>
> **Notice!**
> You cannot load a ZIP export file in Operator Client.

See also
– *Export Video dialog box, page 64*

9.10 Loading exported video

> **i**
>
> **Notice!**
> You cannot load a ZIP export file in Operator Client.

Export formats
– Block exports (info), created with the VRM eXport Wizard
– Not encrypted Export files (*.info), created with the BVMS Operator Client
– Encrypted Export files (*.encr) , created with the BVMS Operator Client

Additional Information
Video exports created with the VRM eXport Wizard are displayed as `info` file.
With the VRM eXport Wizard it is possible to export a large volume of data.
The VRM eXport Wizard is part of the BVMS release ZIP within the folder Bonus.
For more information see the VRM eXport Wizard Software Manual.

See also
– *Exports window, page 57*
– *Timeline window, page 59*

9.11 Performing a Forensic Search (only VRM recordings)

Main window > ⏮▶ > 🕐 tab > Select an Image pane

You can check the video in the selected Image pane for motion. Forensic Search allows you to search for specific properties.

Forensic search is only available for VRM recordings.
1.   Select the Image pane where you want to find motion.
2.   Using the Hairline, select the time period on the Timeline and select the corresponding Image pane.
3.   Click   .
       The **Forensic Search** dialog box is displayed.
       The selected time period is copied to the **Start:** and **End:** fields.

       If required, change the values. Click   .
4.   In the **Algorithm:** list, select an Intelligent Video Analytics entry.
5.   In the **Surveillance Tasks** field, configure your Forensic Search.
       See the user documentation of the Intelligent Video Analytics version that you are using.
6.   Click **Search** to start the Forensic Search.

       The   window with the matching entries is displayed.
7.   For playing the corresponding video, double-click the entry. The corresponding video is displayed.

See also
–   *Forensic Search dialog box, page 60*
–   *Timeline window, page 59*

9.12   Enabling video content analysis (VCA)

Main window
To enable:
▶   Right-click an Image pane with a camera assigned and click **Enable Content Analysis**.
      The VCA overlays are displayed. This setting is retained after the next restart or re-logon of Operator Client or after closing the camera and displaying it again in an Image pane.
To disable:
▶   Right-click an Image pane with a camera assigned and click **Disable Content Analysis**.
      The VCA overlays disappear.

9.13   Finding motion

Main window >   >   tab > Select an Image pane

See also
–   *Motion Search dialog box, page 60*
–   *Motion Search Results window, page 69*
–   *Timeline window, page 59*

9.14   Connecting to an unmanaged site

Main window
You can connect to an unmanaged site. All available devices of all video network devices of this site are then displayed in the Logical Tree. As soon as you log off or exit Operator Client, this connection is terminated.

To connect:

1.   Right-click   .
2.   Click **Connect to Site**.

As long as the device is connecting,   is displayed.

After the connection is successfully established,   is displayed.
All available devices of this site are displayed in the Logical Tree.

If not all devices belonging to this site can be connected,   is displayed. You can later try to connect the remaining devices that were not connected now.

Tip: You can also double-click   to connect.

To connect remaining devices:

1.   Right-click   .
2.   Click **Retry Connection**.

To disconnect a single site:

1.   Right-click   or   .
2.   Click **Disconnect from Site**.

The icon changes:
All Image panes with devices belonging to this site are automatically closed.

To disconnect all sites:

▸   Click   .
All sites are disconnected. Partially connected sites are not disconnected.
All Image panes with devices belonging to this site are automatically closed.

See also
–   *Unmanaged site, page 12*

10 User interface

Notice!

This document describes some functions that are not available for BVMS Viewer.

See also

10.1 Live Mode

Main window >

You automatically access Live Mode every time you log on.

Allows you to move, resize, or hide all control elements as required.

You can right-click to display the context menu.
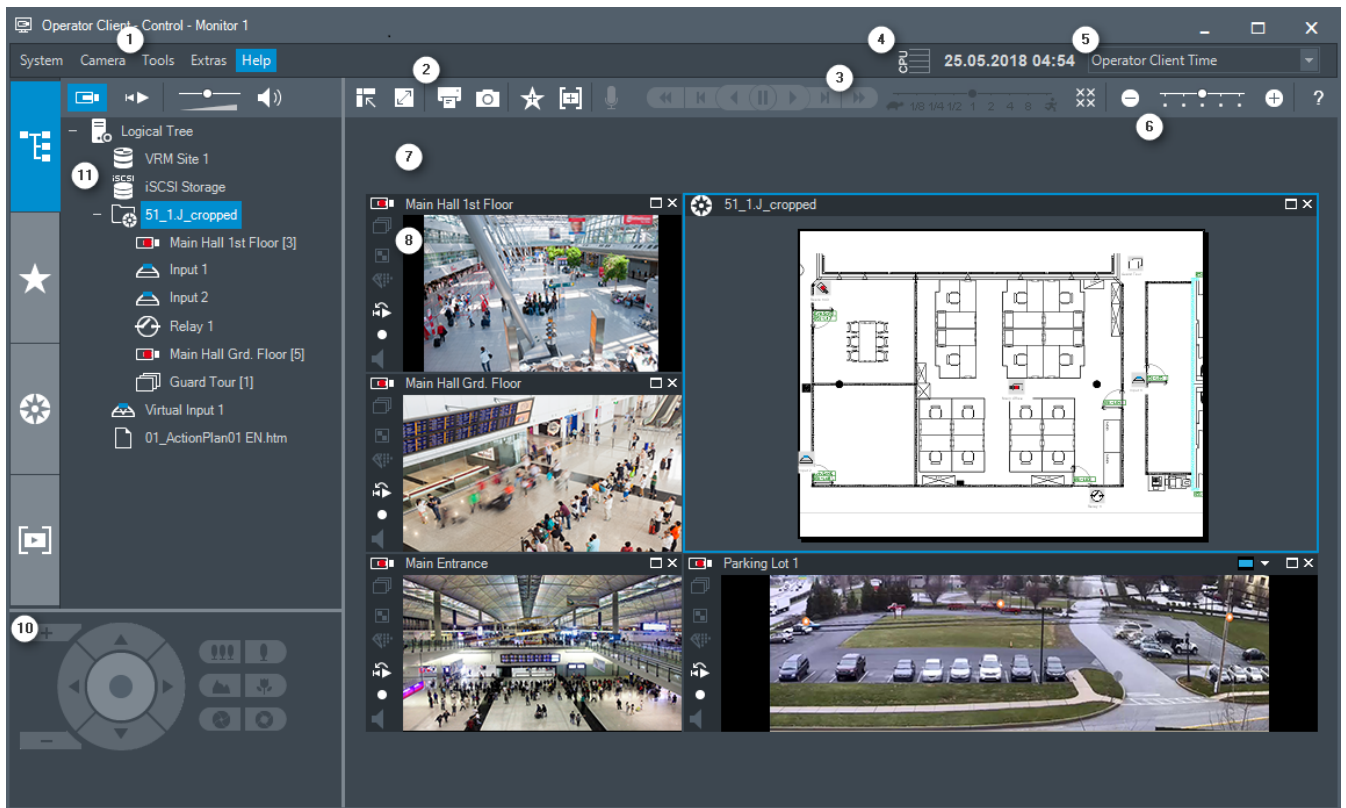
1	Menu bar	Allows you to select a menu command.
2	Toolbar	Displays the available buttons. Point to an icon to display a tooltip.
3	Playback controls	Allows you to control instant playback or a camera sequence or alarm sequence.
4	Performance meter	Displays the CPU usage and the memory usage.

5	Time zone selector	Select an entry for the time zone to be displayed in most time related fields. Only available if at least one Management Server or unmanaged site in the Logical Tree is located in another time zone as your Operator Client.
6	Controls for Image panes	Allows you to select the required number of Image panes and to close all Image panes.
7	Image window	Displays the Image panes. Allows you to arrange the Image panes.
8	Image pane	Displays a camera, a map, an image, a document (HTML file).
10	**PTZ Control** window	Allows you to control a PTZ camera.
11	**Logical Tree** window	Displays the devices your user group has access to. Allows you to select a device for assigning it to an Image pane.
	Favorites Tree window	Allows you to organize the devices of the Logical Tree as required.
	Bookmarks window	Allows to manage bookmarks.

See also

10.2   Playback Mode

Main window >

See also

10.3 Icons used

The following table lists the icons used in Operator Client. For the icons used in the Timeline see chapter *Timeline window, page 59*.

Some of the following icons are not available in BVMS Archive Player.

○ : Root node of the Logical Tree (user assigned name of the Logical Tree).

: Operator Client is connected to a Management Server.

: New configuration available. Log off and log on again to accept.

: Management Server has a previous version.

: Account is disabled. Log off and on again and change password.

XX
XX : Click to close all open Image panes. This icon has the same function as the shortcut for closing all Image panes.

: Indicates an unmanaged site which is not connected.

: Indicates an unmanaged site in another time zone than the Operator Client computer.

: Indicates an unmanaged site to which a connection is being established.

: Indicates an unmanaged site which is completely connected. This means that all devices of this site are connected.

⚠: Indicates an unmanaged site which is partially connected. This means that not all devices of this site are connected.

: Click to disconnect all connected unmanaged sites. Partially connected sites are not disconnected.

: Indicates a panoramic camera.

: Intrusion panel.

: Area configured in an intrusion panel.

: Area is armed.

: Area is disarmed.

: Point configured in an intrusion panel and in the state unbypassed.

: Point is in the state bypassed.

: Point is in alarm state.

: Door configured in an intrusion panel.

: Door is secured.

: Door is locked.

: Door is unlocked.

: License not available

: Not connected

: Primary VRM

: Secondary VRM

: Secondary Failover VRM

: Indicates the source of the displayed recording: Primary VRM recording. On the Image pane toolbar, click to change the recording source (only available, if Secondary VRM or ANR is configured).

: Indicates the source of the displayed recording: Secondary VRM recording. On the Image pane toolbar, click to change the recording source.

: Indicates that ANR provides playback. On the Image pane toolbar, click to change the recording source.

: Indicates that the Primary Failover VRM provides playback. On the Image pane toolbar, click to change the recording source (only available, if Secondary VRM or ANR is configured).

: Indicates that the Secondary Failover VRM provides playback. On the Image pane toolbar, click to change the recording source.

: Indicates that the Encoder provides playback. On the Image pane toolbar, click to change the recording source (only available, if Secondary VRM or ANR is configured).

: Indicates that the Encoder provides playback. On the Image pane toolbar, click to change the recording source.

: Text data available
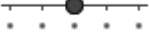
: Text data not available

: Unavailable. For a Management Server: No configuration available

: Disconnected

: Not authorized

: Live Mode

: Playback Mode

: Management Server is located in another time zone.

: Slider to adjust audio volume of all Image panes.

/ : Audio on / off

: Click to display / hide the toolbar of each Image pane.

: Click to display the Image pane in full-screen mode.

: Click to show fewer Image pane rows.

: Click to show more Image pane rows.

: Slider to change Image pane rows.

: Click to print an image of the selected Image pane.

: Click to save an image file of the selected Image pane.

: Click to add a Favorites View.

: Click to add a bookmark.

: Click and hold to speak on the loudspeakers of an encoder with audio configured. The button is active when an encoder with audio function is selected in an Image pane.

: Folder containing various items

: Folder containing various items and having assigned a map

: Camera

/ : Connection lost

: Recording camera

: Video loss

: Matrix camera

: Camera with local storage

: DVR camera

: DiBos camera

: Recording DiBos camera

: State unknown

: Too bright

: Too dark

: Too noisy

: Reference check failed (for example because the camera was moved)

: Relay

/   : Inputs

: Command Script

: Document

: Camera sequence

: Camera sequence is interrupted.

: Camera sequence is playing.

: Digital zoom

: Transcoding enabled

: Manual alarm recording

: Instant playback

: Root node of the Favorites tree

: Click to display Live or Playback Mode again when the Alarm Image window is displayed.

See also
–   *Timeline window, page 59*

10.4   Menu commands

System menu commands		
	Playback Mode / **Live Mode**	Switches to Playback or Live Mode depending on the current state.
	Change password...	Displays a dialog box for entering a new password.
	Logoff	Exits the program and displays the dialog box for logging on.
	Exit	Exits the program.

Camera menu commands		
	Save image...	Displays a dialog box for saving an image of the selected camera.
	Print image...	Displays a dialog box for printing an image of the selected camera.
	Audio on / Audio off	Turns audio of the selected camera on or off.
	Record camera	Starts recording of the selected camera. The Alarm recording Mode quality level is used.
	Instant Playback	Starts playback of the selected camera for the configured rewind time. (Not in Playback Mode)
	Reference Image...	Displays the **Reference Image** dialog box for the currently selected Image pane. (Not in Playback Mode)
	Close	Closes the selected Image pane.
Tools menu commands		
	Toggle Image pane bars	Hides or displays the Image pane bars.
	Show fewer Image pane rows	Decreases the number of displayed Image panes.
	Show more Image pane rows	Increases the number of displayed Image panes.
Timeline menu commands (Playback Mode only)		
	First recording	Moves the hairline to the oldest recording.
	Last recording	Moves the hairline to the latest recording.
	Play	Plays forward starting from the current position of the hairline.
	Pause	Stops playback at the current position. Click **Play** to resume.
	Reverse play	Plays backward from the current position of the hairline.
	Protect video...	Displays the **Protect Video** dialog box.
	Unprotect video...	Displays the **Unprotect Video** dialog box.
	Restrict video...	Displays the **Restrict Video** dialog box.
	Unrestrict video...	Displays the **Unrestrict Video** dialog box.
	Delete video...	Displays the **Delete Video** dialog box.
	Export video...	Displays the **Export Video** dialog box.

	Load exported video...	Displays a dialog box for selecting an export file. The exported file is then displayed in the **Exports** Tree.
Extras menu commands		
	Add favorite	Saves the current Image pane pattern as a View in the **Favorites Tree**.
	Add bookmark	Displays the **Add Bookmark** dialog box.
	Mute System	Turns off audio of the available Image panes and the alarm sound.
	Options...	Displays the **Options** dialog box.
	Default settings	Restores the settings for monitor layout, user interface and options to the factory default settings.
	Last settings	Restores the settings for monitor layout, user interface and options to the last loaded settings.
Help menu commands		
	Display help	Displays the BVMS Online Help.
	About...	Displays a dialog box containing information on the installed system, for example the version number.

10.5   Options dialog box

Main window > **Extras** menu > **Options...** command
Allows you to configure parameters for using Operator Client.

10.5.1   Control tab

Control tab

Dwell time for automatic sequences [s]
Enter the required number of seconds a camera is to be displayed in an Image pane. This time is also valid for alarm sequences.

PTZ Control Speed
Move the slider to adjust the control speed for PTZ cameras.

Rewind time of instant playback [s]
Enter the amount of seconds for the rewind time of instant playback.

10.5.2   Display tab

Display tab

Image Pane Aspect Ratio
For each connected monitor select the required aspect ratio for the Image panes in Operator Client. Use 16:9 for HD cameras. This setting overrides the setting that was made in Configuration Client for the initial startup of Operator Client.

Display Logical Number

Select to display the logical number of a camera in the Logical Tree.

IP address visible in print and save

Select to make the IP addresses of devices in the Logical Tree available in printed or saved images.

Text Data Position

Select the desired option for the location of the text data pane when clicking on .

Prefer hardware acceleration

After logon to Operator Client hardware acceleration is enabled by default.

To disable hardware acceleration, clear the check box.

This setting is retained after the next restart or re-logon of Operator Client.

Show diagnostic information in Image panes (enable until logoff)

Select to show decoding method in the Image pane.

The decoding method is displayed in the title bar of all open Image panes.

This setting is not persistent after the next restart or re-logon of Operator Client.

10.6 Logical Tree window

Main window > > tab

or

Main window > > tab

Displays the hierarchical structure of all the devices your user group has access to.

If you logged on to an Enterprise Management Server, the server name is displayed as a prefix to the camera name.

Only an administrator can create or change the Logical Tree in the Configuration Client.

Allows you to drag an item to the following elements of the user interface:

–   Camera, map, document to an Image pane
–   Each item to the **Favorites Tree** window
–   Map to **Map** window
–   Camera to the **Monitors** window

See also

–   *Arranging and resizing Image panes, page 25*
–   *Displaying a camera in an Image pane, page 22*
–   *Adding items to the Favorites Tree, page 33*
–   *Starting a pre-configured camera sequence, page 25*

10.7 Favorites Tree window

Main window > > tab

or

Main window > > tab

You can add every item of the Logical Tree to a view in the Favorites Tree to create your own subset of the Logical Tree. At any time you can display the view or add or delete devices in a view.

When saving a view in the Favorites Tree, you save the following settings:
– The assignment of cameras or other objects to Image panes
– The Image pane pattern
– The current setting of the digital zoom
– The image section
– The selected stream (only available for Live Mode)

See also
– *Adding items to the Favorites Tree, page 33*
– *Creating/editing views, page 34*
– *Starting an automatic camera sequence, page 26*

10.8 Bookmarks window

Main window > ▭ , ▣ tab

or

Main window > ◄▶ , ▣ tab

You can save a time period of live view or a recording in a bookmark. A bookmark saves a start and an end time, the cameras assigned to Image window at this time, and the entire Image pane pattern. A time period of 0 seconds is possible. Bookmarks are saved in the ▣ pane. Deleting a bookmark does not affect the corresponding recordings. You cannot add or remove cameras from a bookmark. To change a bookmark, load it, make your changes and save it.

If a recording is deleted, the corresponding bookmark is not synchronized. If loaded, a black Image pane is displayed.

If you have logged on to an Enterprise Management Server, the camera name is displayed with the name of this camera's Management Server as a prefix.

Note: Do not add more than 4 cameras in one bookmark to avoid performance issues when loading the bookmark.

See also
– *Editing a bookmark, page 36*
– *Loading a bookmark, page 36*

10.9 Add Bookmark dialog box

Main window > ▭ > Assign desired cameras to the Image window > ▣

or

Main window > ◄▶ > Assign desired cameras to the Image window > ▣

You can save a time period of live view or a recording in a bookmark. A bookmark saves a start and an end time, the cameras assigned to Image window at this time, and the entire Image pane pattern. A time period of 0 seconds is possible. Bookmarks are saved in the ⬚ pane. Deleting a bookmark does not affect the corresponding recordings. You cannot add or remove cameras from a bookmark. To change a bookmark, load it, make your changes and save it.

If a recording is deleted, the corresponding bookmark is not synchronized. If loaded, a black Image pane is displayed.

If you have logged on to an Enterprise Management Server, the camera name is displayed with the name of this camera's Management Server as a prefix.

Note: Do not add more than 4 cameras in one bookmark to avoid performance issues when loading the bookmark.

Start Time

In the lists, select date and time.

End Time

In the lists, select date and time.

Sources

Displays the cameras that belong to this bookmark.

See also

– *Adding a bookmark, page 35*

10.10 Search box

You can use the search box to search for an item in the Logical Tree, in the Favorites Tree and in the Bookmarks.

1. Main window > ⬚ > ⬚ or ★ or ⬚ tab > Right-click the desired root node or the desired item > Click **Tree Search** Or:
   In the Logical Tree window, the Favorites Tree window or the Bookmarks window press Ctrl+F.

   The search box is displayed ▭.

2. Type a search string representing the display name of an item.
   The search is triggered immediately during typing and the first item that matches the search string is marked.
   If the search string is not found, the background color of the search box changes.

3. Click ∧ or ∨ to mark the previous or the next matching item.
   The search proceeds through all items in the tree that match the search string and not only through the items in the selected tree node.

4. Click ✕ to close the search box.

10.11 Exports window

You can import exported video data, display it in an Image pane, search for particular data in it, and unload it again.

See also

– *Exporting video data, page 42*

– *Loading exported video, page 44*

10.12 PTZ Control window

Main window > ▭ > (icon) **PTZ Control** tab

The (icon) window becomes active when a PTZ camera or a swiveling/tilting camera is displayed in the selected Image pane.

Allows you to control a camera with the corresponding functions displayed in the selected Image pane.

(icon) Click to zoom in or out digitally. These controls are active even when a non-PTZ camera is selected.

(joystick control) Click an arrow or drag the joystick in the center to swivel the camera in all directions.

(icon) Click to zoom in the picture angle (zoom angle) / zooming out the picture angle (wide angle).

(icon) Click to set the focus near / focus far.

(icon) Click to close the iris / open the iris.

Prepositions:

Select an entry to move the PTZ control to the predefined position.

(icon)

Click to save the current position of the PTZ camera to the selected preposition entry.

AUX Commands:

Select an entry to execute this command.

10.13 Image window

Main window
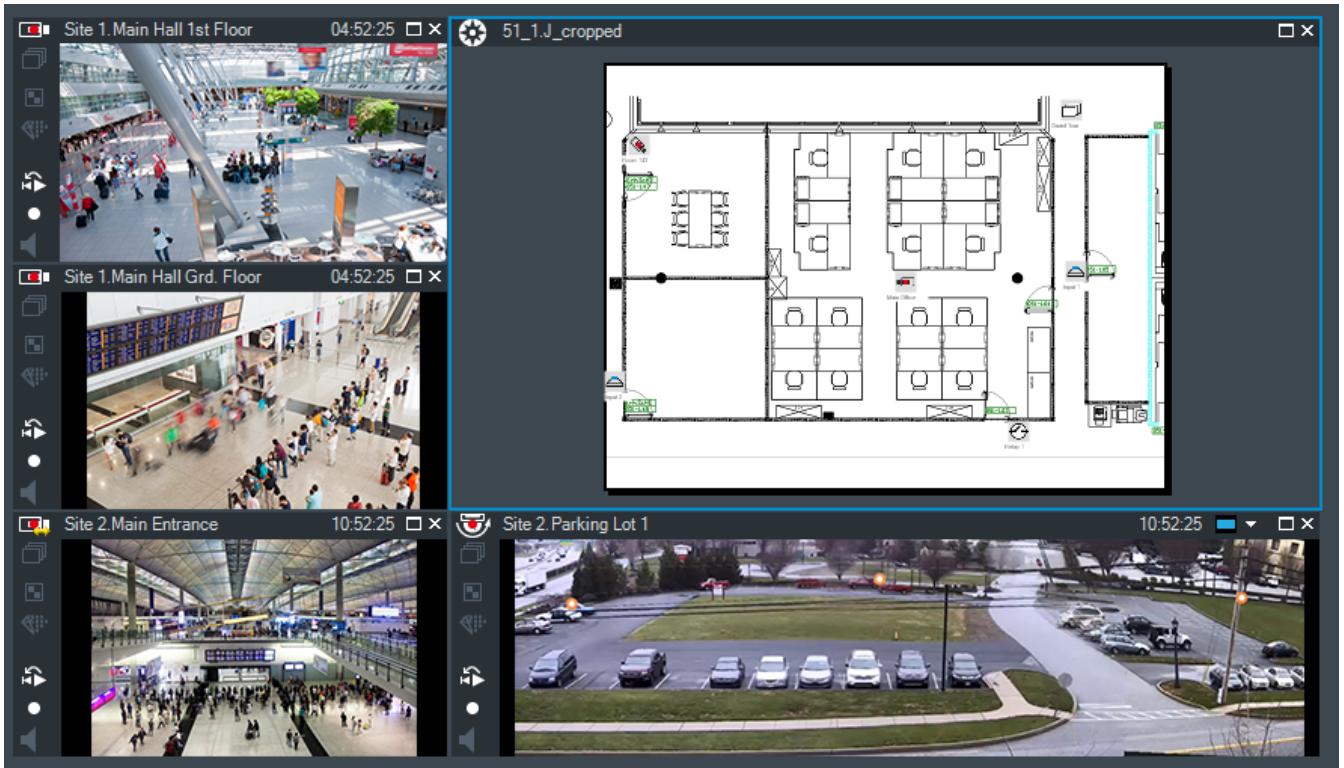
Displays a variable number of Image panes. Minimum is 1 Image pane. You can display one camera in several Image panes simultaneously.

See also
– *Changing the number of Image pane rows, page 24*
– *Arranging and resizing Image panes, page 25*

10.14 Image pane

Main window
BVMS Archive Player offers only a restricted feature set.

See also
– *Icons used, page 49*

10.15 Timeline window

Allows you to control the playback of recorded videos. You can display several cameras simultaneously.
Audio playback is only possible when you play the video in normal speed.
If you are authorized to display recorded videos, you can also listen to the accompanying audio recording.
If you select another time zone, the Timeline is changed accordingly.
Allows you to navigate through recorded videos. The playback of all displayed Image panes is synchronized.
Many features enable the precise finding of scenes you are searching for.
The Timeline for VRM recordings in Operator Client and BVMS Archive Player displays the following information indicated by a color or hatching:

VRM recording	Color
Continuous recording	Dark gray-blue
Results of motion search	White
No recording	Light gray
Protected video	White diagonal stripes
Restricted video	Red diagonal stripes

See also
– *Changing the playback speed, page 39*
– *Using the Timeline, page 39*
– *Finding motion, page 45*
– *Exporting video data, page 42*
– *Protecting video, page 40*
– *Restricting video, page 40*
– *Deleting video data, page 41*
– *Exporting video data, page 42*
– *Loading exported video, page 44*

10.16   Motion Search dialog box

Allows you to set up a search filter for motion in designated areas of a camera image. You select the zones where you want to detect motion. You can search for motion only in the selected Image pane.

See also
– *Finding motion, page 45*

10.17   Delete Video dialog box

Main window >   > **Timeline** tab > Move the Hairline to the desired position > On the **Timeline** menu, click **Delete video...**
Allows you to delete video data from the beginning of the recording to the position of the hairline.

> **i** | **Notice!**
> You cannot delete the data of a local storage device.

See also
– *Deleting video data, page 41*

10.18   Forensic Search dialog box

Main window >   > **Timeline** tab > Select time period with Hairline > Click
Forensic search is only available for VRM recordings.

Allows you to find video data with selecting a Forensic Search type, for example Intelligent Video Analytics. You configure the Forensic Search in the **Surveillance Tasks** field. You can search for motion only in the selected Image pane.

Algorithm:

Select the required analysis algorithm. By default, only **MOTION+** is available – this offers a motion detector and essential recognition of tampering. The current alarm status is displayed for information purposes.

Notice!

Additional analysis algorithms with comprehensive functions such as Intelligent Video Analytics are available.

If you select one of these algorithms, you can set the corresponding parameters directly.

Presets:

Select an entry to load Forensic Search settings that you have saved earlier.

Click to save the settings for the Forensic Search. You can enter a descriptive name.

Start:

The current position of the Hairline is displayed.

Enter the point in time when the search starts.

If you uncheck, all recordings until the specified end date are searched.

End:

The current position of the Hairline is displayed.

Enter the point in time when the search ends.

If you uncheck, all recordings beginning with the specified start date are searched.

Click to update the selection in the Timeline with the data of the **Start:** and **End:** fields. Only the selected video is managed.

Surveillance Tasks

Configure your Forensic Search. See the user documentation of the Intelligent Video Analytics version that you are using.

Search

Click to start the Forensic Search.

See also

–   *Performing a Forensic Search (only VRM recordings), page 44*

10.19   Restrict Video dialog box

Main window >   > **Timeline** menu > **Restrict video...** command > **Restrict Video** dialog box

You can restrict the recordings of cameras connected to the following DIVAR AN devices:

–   DIVAR AN 3000

–   DIVAR AN 5000

When restricted, an unauthorized user cannot display the recordings of these cameras.

The DIVAR AN devices can be connected to BVMS either locally under   or as an

unmanaged site under   .

For restricting you need the corresponding permission.

Start:

The current selection of the Hairline is displayed.

If you uncheck, all recordings until the specified end date are restricted.

End:

The current selection of the Hairline is displayed.

If you uncheck, all recordings beginning with the specified start date are restricted.

i	**Notice!** Unrestricting / unprotecting a selected time period can possibly unrestrict / unprotect the entire contiguous restricted / protected time period of this camera, even outside the selected time period.

Restrict

Click to restrict the selected time period.

See also

– *Restricting video, page 40*

10.20   Unrestrict Video dialog box

Main window >   ⏮▶   > **Timeline** menu > **Unrestrict video...** command > **Unrestrict Video** dialog box

You can unrestrict the recordings of cameras connected to the following DIVAR AN devices:

– DIVAR AN 3000
– DIVAR AN 5000

The DIVAR AN devices can be connected to BVMS either locally under 🖳 or as an unmanaged site under 📍 .

For unrestricting you need the corresponding permission.

Start:

The current selection of the Hairline is displayed.

If you uncheck, all recordings until the specified end date are unrestricted.

End:

The current selection of the Hairline is displayed.

If you uncheck, all recordings beginning with the specified start date are unrestricted.

i	**Notice!** Unrestricting / unprotecting a selected time period can possibly unrestrict / unprotect the entire contiguous restricted / protected time period of this camera, even outside the selected time period.

Unrestrict

Click to unrestrict the selected time period.

See also

– *Restricting video, page 40*

10.21 Protect Video dialog box

Main window > ⏮▶ > **Timeline** menu > **Protect video...** command > **Protect Video** dialog box

Allows you to protect the selected video data.

> **Notice!**
> You cannot protect the data of a local storage device.

Start:

The current selection of the Hairline is displayed.

Enter the point in time when the protection starts.

If you uncheck, all recordings until the specified end date are protected.

End:

The current selection of the Hairline is displayed.

Enter the point in time when the protection ends.

If you uncheck, all recordings beginning with the specified start date are protected.

> **Notice!**
> Unrestricting / unprotecting a selected time period can possibly unrestrict / unprotect the entire contiguous restricted / protected time period of this camera, even outside the selected time period.

Protect

Click to protect the selected time period.

See also

– *Protecting video, page 40*

10.22 Unprotect Video dialog box

Main window > ⏮▶ > **Timeline** menu > **Unprotect video...** command > **Unprotect Video** dialog box

Allows you to protect the selected video data.

Start:

The current selection of the Hairline is displayed.

Enter the point in time when the protection starts.

If you uncheck, all recordings until the specified end date are unprotected.

End:

The current selection of the Hairline is displayed.

Enter the point in time when the protection ends.

If you uncheck, all recordings beginning with the specified start date are unprotected.

> **Notice!**
> Unrestricting / unprotecting a selected time period can possibly unrestrict / unprotect the entire contiguous restricted / protected time period of this camera, even outside the selected time period.

Unprotect
Click to unprotect the selected time period.

See also
– *Protecting video, page 40*

10.23 Delete Video dialog box

Main window > [icon] > **Timeline** menu > **Delete video...** command > **Delete Video** dialog box

Allows you to delete video data.

> **Notice!**
> You cannot delete the data of a local storage device.

Start:
The current selection of the Hairline is displayed.
Enter the point in time when the deletion starts.
If you uncheck, all recordings until the specified end date are deleted.

End:
The current selection of the Hairline is displayed.
Enter the point in time when the deletion ends.
If you uncheck, all recordings beginning with the specified start date are deleted.

Delete
Click to delete the selected time period.

See also
– *Deleting video data, page 41*

10.24 Export Video dialog box

When the verification of authenticity is enabled in Configuration Client, each export is automatically checked.

> **Notice!**
> You cannot export the data of a local storage device.

Export of a panoramic camera
When you export the recordings of a panoramic camera you always export the full image circle. If you export multiple cropped Image panes of the same panoramic camera, the full image circle of this camera is exported only once. This also applies for the export of non-panoramic cameras.

Unencrypted export
You can export video and audio data to a local drive, a CD/DVD drive, a Blu-Ray disk, a network drive, or a USB drive.
Note: If you use a USB drive, use a fast USB device to avoid failures.
The data is exported in native (BVMS Archive Player), ASF or in MOV format.
When you export a video in native format, you can add BVMS Archive Player as a viewer.

Data in MOV format can be played with standard software such as QuickTime from Apple. You export the video and audio data of the selected cameras.

Only in an Enterprise System: You can select a remote Management Server to perform the export there. You can only export the recordings of the cameras that are managed by the selected Management Server.

Only one export at a time can run on a workstation.

Note: You need a permission for each camera that you want to export.

If exporting video data on a hard drive was not successful for multiple cameras, the completely exported video data of cameras is retained. The data of an uncomplete export process of a camera is deleted.

If the user cancels the export, the already exported video data of this export process is deleted.

The video export without providing a password creates an unencrypted file with the extension `.info` and the unencrypted video data files in subfolders. The operator must select the `.info` file when loading this unencrypted export.

Encrypted export

When a password is provided for a video export, a file with the extension `.encr` and the encrypted video data files in subfolders are created.

For loading the encrypted export, the operator must select the encrypted `.encr` file and type in the correct password.

The `.encr` file and the encrypted video data files are indicated by a specific file icon.

If a file in the subfolders of an encrypted export is deleted or tampered, you cannot import this encrypted export.

If exporting video data on a hard drive was not successful or the user cancels the export, the already exported video data of this export process is deleted.

Export on multiple discs

Encrypted export and export into a single ZIP file are not possible on multiple CDs/DVDs/Blu-Ray discs. If the export fits on a single CD/DVD/Blu-Ray disc, encrypted export on a CD/DVD/Blu-Ray disc is possible.

Recordings that were selected for export and that are to be exported to CD/DVD/Blu-Ray discs, are first written to the local hard drive and then written to one or more writeable discs. Unencrypted export on multiple discs is only supported for native format. Exporting with ASF or MOV format only works when it fits on one disc.

The first inserted disc determines the media type of all following discs.

If recordings were exported to multiple CD/DVD/Blu-Ray discs, and you must view all exported cameras in all exported time periods, copy the content of all discs to your hard drive. You can ignore all occurring overwrite warnings.

You can view the recordings exported to a single disc out of a group of discs that were created during an export.

If exporting video data on a CD/DVD/Blu-Ray disc was not successful or the user cancels the export, the already exported video data of this export process is retained.

Name

Type the name for the exported file.

Start:

Select the check box to set a start time for exporting. In the lists, select date and time.

End:

Select the check box to set an end time for exporting. In the lists, select date and time.

Encrypt Export

Click to select encryption for this export.

Password

Type in a password for your encrypted export. Confirm this password in the **Confirm password** field.

Export as single ZIP file

Select to store the exported files in a single ZIP file. You use the ZIP file format to store all exported files in a single file, compression of the data is not available.

On a FAT32 partition, the maximum file size of the ZIP file is 4 GB.

Remote Export

Click to enable remote export. You can select a Management Server of your Enterprise System. On this Management Server the export is performed.

Ensure that the desired storage media is available.

Finalize Disk

Click to select that the data medium is finalized after the successful burning process. After finalizing no further data can be burned on the data medium.

Comment:

Enter a comment for the export.

Cancel

Click to save the dialog settings until you start Operator Client the next time.

See also

10.25   Export Bookmark dialog box

Main window > > Right-click a bookmark > **Export Bookmark** command > **Export Bookmark** dialog box

Allows you to export video data of a bookmark in BVMS Archive Player, ASF or MOV format. You can change the time period for the export. For each camera, a subfolder is created in the target folder.

Export of a panoramic camera

When you export the recordings of a panoramic camera you always export the full image circle. If you export multiple cropped Image panes of the same panoramic camera, the full image circle of this camera is exported only once. This also applies for the export of non-panoramic cameras.

Unencrypted export

You can export video and audio data to a local drive, a CD/DVD drive, a Blu-Ray disk, a network drive, or a USB drive.

Note: If you use a USB drive, use a fast USB device to avoid failures.

The data is exported in native (BVMS Archive Player), ASF or in MOV format.

When you export a video in native format, you can add BVMS Archive Player as a viewer.

Data in MOV format can be played with standard software such as QuickTime from Apple.

You export the video and audio data of the selected cameras.

Only in an Enterprise System: You can select a remote Management Server to perform the export there. You can only export the recordings of the cameras that are managed by the selected Management Server.

Only one export at a time can run on a workstation.
Note: You need a permission for each camera that you want to export.
If exporting video data on a hard drive was not successful for multiple cameras, the completely exported video data of cameras is retained. The data of an uncomplete export process of a camera is deleted.
If the user cancels the export, the already exported video data of this export process is deleted.
The video export without providing a password creates an unencrypted file with the extension `.info` and the unencrypted video data files in subfolders. The operator must select the `.info` file when loading this unencrypted export.

Export on multiple discs
Encrypted export and export into a single ZIP file are not possible on multiple CDs/DVDs/Blu-Ray discs. If the export fits on a single CD/DVD/Blu-Ray disc, encrypted export on a CD/DVD/Blu-Ray disc is possible.
Recordings that were selected for export and that are to be exported to CD/DVD/Blu-Ray discs, are first written to the local hard drive and then written to one or more writeable discs. Unencrypted export on multiple discs is only supported for native format. Exporting with ASF or MOV format only works when it fits on one disc.
The first inserted disc determines the media type of all following discs.
If recordings were exported to multiple CD/DVD/Blu-Ray discs, and you must view all exported cameras in all exported time periods, copy the content of all discs to your hard drive. You can ignore all occurring overwrite warnings.
You can view the recordings exported to a single disc out of a group of discs that were created during an export.
If exporting video data on a CD/DVD/Blu-Ray disc was not successful or the user cancels the export, the already exported video data of this export process is retained.

Name
Type the name for the exported file.

Start:
Select the check box to set a start time for exporting. In the lists, select date and time.

End:
Select the check box to set an end time for exporting. In the lists, select date and time.

Encrypt Export
Click to select encryption for this export.

Password
Type in a password for your encrypted export. Confirm this password in the **Confirm password** field.

Remote Export
Click to enable remote export. You can select a Management Server of your Enterprise System. On this Management Server the export is performed.
Ensure that the desired storage media is available.

Finalize Disk
Click to select that the data medium is finalized after the successful burning process. After finalizing no further data can be burned on the data medium.

Comment:
Enter a comment for the export.

See also
– *Exporting bookmarks, page 36*

10.26 Export Multiple Bookmarks dialog box

Main window > [ ] tab > Right-click a bookmark > **Export Multiple Bookmarks** command >
Export Video dialog box

Allows you to export video data of multiple bookmarks in BVMS Archive Player, ASF or MOV
format. This way you can export different time periods of the same or different cameras in one
process. For each camera, a subfolder is created in the target folder.

Export of a panoramic camera
When you export the recordings of a panoramic camera you always export the full image
circle. If you export multiple cropped Image panes of the same panoramic camera, the full
image circle of this camera is exported only once. This also applies for the export of non-
panoramic cameras.

Unencrypted export
You can export video and audio data to a local drive, a CD/DVD drive, a Blu-Ray disk, a
network drive, or a USB drive.
Note: If you use a USB drive, use a fast USB device to avoid failures.
The data is exported in native (BVMS Archive Player), ASF or in MOV format.
When you export a video in native format, you can add BVMS Archive Player as a viewer.
Data in MOV format can be played with standard software such as QuickTime from Apple.
You export the video and audio data of the selected cameras.
Only in an Enterprise System: You can select a remote Management Server to perform the
export there. You can only export the recordings of the cameras that are managed by the
selected Management Server.
Only one export at a time can run on a workstation.
Note: You need a permission for each camera that you want to export.
If exporting video data on a hard drive was not successful for multiple cameras, the
completely exported video data of cameras is retained. The data of an uncomplete export
process of a camera is deleted.
If the user cancels the export, the already exported video data of this export process is
deleted.
The video export without providing a password creates an unencrypted file with the
extension `.info` and the unencrypted video data files in subfolders. The operator must select
the `.info` file when loading this unencrypted export.

Export on multiple discs
Encrypted export and export into a single ZIP file are not possible on multiple CDs/DVDs/Blu-
Ray discs. If the export fits on a single CD/DVD/Blu-Ray disc, encrypted export on a CD/DVD/
Blu-Ray disc is possible.
Recordings that were selected for export and that are to be exported to CD/DVD/Blu-Ray
discs, are first written to the local hard drive and then written to one or more writeable discs.
Unencrypted export on multiple discs is only supported for native format. Exporting with ASF
or MOV format only works when it fits on one disc.
The first inserted disc determines the media type of all following discs.
If recordings were exported to multiple CD/DVD/Blu-Ray discs, and you must view all exported
cameras in all exported time periods, copy the content of all discs to your hard drive. You can
ignore all occurring overwrite warnings.

You can view the recordings exported to a single disc out of a group of discs that were created during an export.

If exporting video data on a CD/DVD/Blu-Ray disc was not successful or the user cancels the export, the already exported video data of this export process is retained.

Name
Type the name for the exported file.

Include Viewer
Click to select that a setup for BVMS Archive Player is stored in the location selected under **Target**.

Encrypt Export
Click to select encryption for this export.

Password
Type in a password for your encrypted export. Confirm this password in the **Confirm password** field.

HDD
Click to select a folder on a hard disk partition for exporting.

CD/DVD/Blu-Ray
In the list, select a writer device for exporting.
Enable **Finalize Disk**, if you do not want to burn further data on the data medium.

Bookmarks
In the list, select the bookmarks that you want to export.

Finalize Disk
Click to select that the data medium is finalized after the successful burning process. After finalizing no further data can be burned on the data medium.

Comment:
Enter a comment for the export.

See also

10.27 Export dialog box

Allows you to view information on the performed export and to display the results of the authenticity verification that is automatically performed on every export.

Verification Details
Click to display the **Authenticity Verification Result** dialog box.
This button is only available if authentication issues were found.

See also

10.28 Motion Search Results window

Displays entries for video data containing motion for the camera displayed in the selected Image pane. You can select an entry for playback, protection, authenticity checking, archiving, or export.
Displays the recordings that match the search criteria.

See also

– *Performing a Forensic Search (only VRM recordings), page 44*
– *Exporting video data, page 42*
– *Finding motion, page 45*

10.29   Video Search Results window

Main window >   >   tab

Displays entries for video data matching different search criteria. You can select an entry for playback, protection, authenticity checking, archiving, or export.

Allows you to play the recordings that match the search criteria.

11 Keyboard shortcuts

This section lists the available keyboard shortcuts for a US keyboard layout.

+ indicates that each key must be pressed simultaneously (for example, Control+z means to press the Control key and the z key simultaneously).

On your Setup CD you find an Acrobat file for printing. The name of this file is keyboard_layout_en.pdf.

11.1 General controls

To	Press
Display Online Help	F1
Rename (for example in favorites)	F2

11.2 Playback controls

To	Press
Play / Pause	Space
Previous frame	,
Next frame	.
Set direction to forward	Enter
Set direction to backward	Backspace
Jump to oldest recording	Home
Jump to latest recording	End
Increase playback speed	Page Up
Decrease playback speed	Page Down

11.3 Image window controls

The following keyboard shortcuts only work when the Image window has the focus.

To	Press
Move selected Image pane	Cursor keys
Close Image pane	Delete,
Close all Image panes	Control + Delete
Show fewer Image pane rows	F7
Show more Image pane rows	F8*****
Show / hide Image pane bars	F9
*Note: You cannot display more Image pane rows than the configured maximum, which is set by a parameter in the BVMS Configuration Client.	

Glossary

ANR

Automated Network Replenishment. Integrated process that copies missing video data from a video transceiver to the network video recorder after a network failure. The copied video data exactly fills the gap that occurred after the network failure. Hence the transceiver needs any kind of local storage. The recording capacity on this local storage is calculated with the following formula: (network bandwidth x estimated network downtime + safety margin) x (1 + 1/backup speed). The resulting recording capacity is required because the continuous recording must continue during the copy process.

area

A group of detection devices connected to the security system.

ASF

Advanced Systems Format; Microsoft Windows media audio and video format.

authenticity

State of a recorded video that indicates its originality. That means, the recorded video is not manipulated.

bookmark

Used for storing a time period of live or recorded video. This allows for tagging particular scenes for later investigation. Additionally you can share your investigation results with other users by exporting a bookmark.

bypass

Selectively remove points from the security system. A point may be bypassed in order to arm the perimeter with a window open.

camera sequence

A list of cameras that are displayed one after the other. Each camera is displayed for a specific time (dwell time). There are two types of sequences: predefined and automatic. Predefined sequences are defined by the administrator. Icons for these sequences are located in the Logical Tree. Automatic sequences are created when you drag a multiple selection or a folder from the Logical Tree to an Image pane or a decoder. All cameras

in this folder or selection sequences in the Image pane. You can create your own sequences by creating a folder in your Favorites Tree.

dewarping

The use of software to convert a circular image from a fisheye lens with radial distortion to a rectilinear image for normal viewing (dewarping is the correction of distortion).

dwell time

Preset amount of time a camera is displayed in an Image window until the next camera is displayed during a camera sequence.

Edge dewarping

Dewarping performed in the camera itself.

Encoder

Changes an analog stream to a digital stream, e.g., to integrate analog cameras in a digital system like Bosch Video Management System. Some encoders can have a local storage like a flash card, a USB hard disk, or they can store their video data on iSCSI devices. IP cameras have an encoder built in.

Enterprise Account

Enterprise Account is an authorization that enables a user of Operator Client to connect to the devices of a Management Server being part of an Enterprise System. In an Enterprise Account, all permissions for the devices of this Management Server are configured. Operator Client can simultaneously connect to all Management Server computers that are part of this Enterprise System. This access is either controlled by the membership to an Enterprise User Group, and is controlled by the device permissions configured in the Enterprise Account for this Management Server.

Enterprise User Group

Enterprise User Group is a user group that is configured on an Enterprise Management Server. Enterprise User Group defines the users that are authorized to access multiple Management Server computers simultaneously. Defines the operating permissions available for these users.

Failover VRM

Software in the BVMS environment. Takes over the task of the assigned Primary VRM or Secondary VRM in case of failure.

Hot spot

Mouse sensitive icon on a map. Hot spots are configured in Configuration Client. Hot spots can be for example cameras, relays, inputs. The operator uses it for localizing and selecting a device in a building. If configured, hot spots can display a blinking background color when a specific state event or alarm occurs.

Image pane

Used for displaying live and recorded video of a single camera, a map, or an HTML file.

Image pane pattern

Arrangement of Image panes.

Image window

Container for Image panes, structured by an Image window pattern.

Instant playback

Plays the recorded image of the selected camera in an Image pane on the live screen. The start time (number of seconds in the past, or rewind time) can be configured.

Intelligent Video Analytics

Algorithm that detects specific properties and the behavior of objects in a scene monitored by a video camera and from this generates alarm events that, in turn, can be processed in a CCTV system. Recording with Intelligent Video Analytics settings activated is a precondition to be able to selectively and quickly search through video material later. Intelligent Video Analytics makes it possible to capture and evaluate directional movement of objects in such a way that false alarms are prevented to a large extent. Intelligent Video Analytics adapts automatically to changing environmental conditions and is therefore largely non-sensitive to perturbing influences such as rain and tree movement. Especially when used for forensic search, Intelligent Video Analytics allows for filtering moving objects by their color specifications. With the aid of Intelligent Video

Analytics algorithm extensive video material can be searched selectively for objects with specific color properties.

Logical number

Logical numbers are unique IDs assigned to each device in the system for ease of reference. Logical numbers are only unique within a particular device type. Typical use of logical numbers are Command Scripts.

Logical Tree

Tree with a customized structure of all the devices. The Logical Tree is used in the Operator Client to select cameras and other devices. In the Configuration Client, the "Full Logical Tree" is configured (on the Maps and Structure page) and tailored for each user group (on the User Groups page).

Management Server

BVMS server managing devices.

MOV

File extension of the default video format used by QuickTime Player from Apple.

Panoramic camera

Camera with a 360° or 180° view angle.

Playback Mode

Feature of Operator Client. Used to playback and search through archived videos.

point

A detection device connected to the security system. Points show on the keypad individually and with custom text. The text might describe a single door, motion sensor, smoke detector, or an protected space such as UPSTAIRS or GARAGE.

PTZ camera

Camera with pan, tilt, and zoom function.

Rewind time

Number of seconds in the past when an Image pane is switched to instant playback.

Secondary VRM

Software in the BVMS environment. Ensures that the recording performed by one or multiple Primary VRMs is additionally and simultaneously performed to another iSCSI target. The recording settings can deviate from the settings of the Primary VRM.

Timeline

Part of the Bosch Video Management System user interface. Displays lines as graphical representations of the recordings of the selected cameras. The Timeline allows you to navigate through recorded videos.

unmanaged site

Item of the Device Tree in BVMS that can contain video network devices like Digital Video Recorders. These devices are not managed by the Management Server of your system. The user of Operator Client can connect to the devices of an unmanaged site on demand.

User group

User groups are used to define common user attributes, such as permissions, privileges and PTZ priority. By becoming a member of a group, a user automatically inherits all the attributes of the group.

UTC

Universal Time Coordinated

view

Collection of cameras assigned to Image panes that you can recall for instant live viewing. Image panes with maps or HTML files can be part of a view. Sequences cannot be part of a view.

VRM

Video Recording Manager. Software package in Bosch Video Management System which manages storing video (MPEG-4 SH++, H.264 and H.265) with audio data and metadata on iSCSI devices in the network. VRM maintains a database containing the recording source information and a list of associated iSCSI drives. VRM is realized as a service running on a computer in the Bosch Video Management System network. VRM does not store video data itself but distributes storage capacities on iSCSI devices to the encoders, while handling load balancing between multiple iSCSI devices. VRM streams playback from iSCSI to Operator Clients.

Index