# **Bosch Video Management System**



Operator's Manual

# **Table of contents**

1	Using the Help	7
1.1	Finding information	7
1.2	Printing the Help	8
2	Introduction	9
3	System overview	11
3.1	Hardware requirements	11
3.2	Software requirements	12
3.3	License requirements	12
3.4	Supported system structures	12
4	Concepts	14
4.1	Enterprise System	14
4.1.1	Scenarios	14
4.1.2	Permissions	17
4.1.3	Types of user groups	18
4.1.4	Licensing	18
4.2	Server Lookup	18
4.3	Alarm handling	19
5	Getting started	22
5.1	Accessing the system	22
5.2	Using Server Lookup	22
5.3	Starting Operator Client	22
5.4	Working offline	23
5.5	Accepting a new configuration	24
6	Displaying camera images	25
6.1	Selecting a time zone	25
6.2	Displaying a camera in an Image pane	26
6.3	Displaying cameras from multiple Management Servers	26
6.4	Finding an item in the Logical Tree	26
6.5	Arranging Image panes	27
6.6	Displaying the Alarm Image window	27
6.7	Starting manual recording	27
6.8	Starting a pre-configured camera sequence	28
6.9	Starting an automatic camera sequence	28
6.10	Using one channel audio mode	29
6.11	Using multichannel audio mode	29
6.12	Using digital zoom	30
6.13	Saving a single image	30
6.14	Printing a single image	30
6.15	Switching to full-screen mode	31
6.16	Displaying or hiding the Image pane bars	31
6.17	Displaying information on a camera	31
6.18	Starting instant playback	31
6.19	Assigning a camera to a monitor	32
6.20	Using audio mode	32
6.21	Displaying metadata (for NVR recordings only)	32
6.22	Using the Intercom functionality	32
6.23	Locking the control of a PTZ camera	34

6.24	Updating the reference image	34
6.25	Controlling a monitor wall	34
6.26	Displaying video via low bandwidth	35
6.27	Using TCP for reliable connection	35
7	Using maps and the PTZ cameras	36
7.1	Displaying a map	36
7.2	Controlling PTZ cameras	36
7.3	Using in-window control of a camera	36
8	Using favorites and bookmarks	38
8.1	Adding items to the Favorites Tree	38
8.2	Creating/editing views	38
8.3	Adding a bookmark	39
8.4	Editing a bookmark	40
8.5	Loading a bookmark	40
8.6	Exporting bookmarks	40
9	Managing recorded videos	42
9.1	Selecting a time zone	42
9.2	Using the Timeline	43
9.3	Playing a specific recording mode	43
9.4	Playing recorded videos	43
9.5	Authenticating video data (for NVR recordings only)	44
9.6	Changing the playback speed	44
9.7	Protecting video	44
9.8	Deleting video data	45
9.9	Exporting video data	45
9.10	Importing video data	46
9.11	Performing a Forensic Search (only VRM recordings)	47
9.12	Finding motion (only NVR recordings)	47
9.13	Finding Logbook entries	48
9.14	Finding recorded video data	49
9.15	Displaying video via low bandwidth	49
10	Handling alarms	50
10.1	Accepting an alarm	50
10.2	Adding comments to an alarm	50
10.3	Clearing an alarm	51
10.4	Customizing the Alarm List window	51
10.5	Displaying the Live Image window	52
10.6	Starting a workflow	52
10.7	Un-accepting an alarm	52
11	Using a CCTV keyboard	54
11.1	Using KBD Universal XF keyboard	54
11.1.1	KBD Universal XF keyboard user interface	54
11.2	Bosch IntuiKey keyboard user interface	56
11.2.1	Status display	57
11.3	Using a Bosch IntuiKey keyboard connected to a workstation	58
11.3.1	Starting the keyboard	58
11.3.2	Entering operation modes	58
11.3.3	Displaying cameras	59
11.3.4	Using the joystick	59

Bosch Video Ma	anagement System	Table of Contents   en	5
11.3.5	Using softkeys		60
11.4	Using a Bosch IntuiKey keyboard connected to a decoder		62
11.4.1	Starting the keyboard		62
11.4.2	Displaying cameras		62
11.4.3	Using the joystick		62
11.4.4	Using softkeys		63
12	User interface		64
12.1	Live Mode		64
12.2	Playback Mode window		67
12.3	Alarm Mode (Alarm Display)		70
12.4	Menu commands		74
12.5	Triggering a user event		76
12.6	Reference Image dialog box		76
12.7	Please select a Server		76
12.8	Select Search Parameters dialog box		77
12.9	ATM/POS Options dialog box		78
12.10	Select Virtual Inputs Filter Settings dialog box		79
12.11	Device Selection dialog box		79
12.12	Event Selection dialog box		79
12.13	Logbook Results: dialog box		79
12.14	Options dialog box		79
12.15	Logical Tree window		80
12.16	Search dialog box		81
12.17	Favorites Tree window		81
12.18	Export Video dialog box		81
12.19	Bookmarks window		82
12.20	Add Bookmark dialog box		83
12.21	Export Bookmark dialog box		83
12.22	Export Multiple Bookmarks dialog box		84
12.23	Exports window		85
12.24	Map window		85
12.25	Monitor Wall Image window		85
12.26	PTZ Control window		86
12.27	Monitors window		87
12.28	Image window		87
12.29	Image pane		88
12.30	Timeline window		89
12.31	Motion Search dialog box		91
12.32	Delete Video dialog box		91
12.33	Forensic Search dialog box (only VRM recordings)		92
12.34	Protect Video dialog box		92
12.35	Unprotect Video dialog box		93
12.36	Motion Search Results window		93
12.37	Video Search Results window		93
12.38	Alarm List window		93
12.39	Used icons		94
13	Keyboard shortcuts		98
13.1	General controls		98
13.2	Playback controls		98

6 en   Tab	le of Contents	Bosch Video Management System
13.3	Image window controls	98
14	Troubleshooting	99
14.1	Updating an old Bosch VMS Archive Player version	99
	Glossary	100
	Index	104

#### **Using the Help** 1

To find out more about how to do something in Bosch VMS, 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:

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

Click:	То:
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.

Concepts provides background information on selected issues.

#### 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.

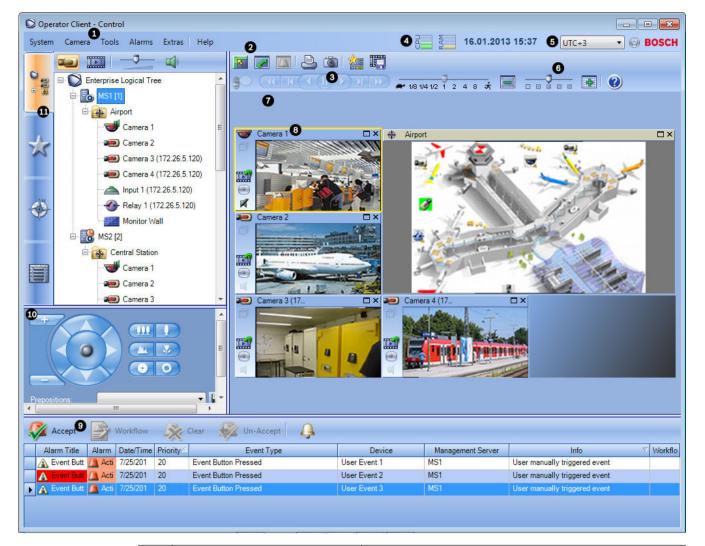
### 1.2 Printing the Help

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

#### To print a Help topic:

- 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



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 in the Logical Tree is located in another time zone as your Operator Client.
6	Slider for Image pane pattern	Allows you to select the required number of 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).
9	Alarm List window	Displays all alarms that the system generates. Allows you to accept or clear an alarm or to start a workflow, for example, by sending an E-mail to a maintenance person. The Alarm List is not being displayed, when the connection to the Management Server is lost.
10	Monitors window (only available if at least one analog monitor group has been configured)	Displays the configured analog monitor groups.  Allows you to switch to the next or previous analog monitor group if available.  Note:  The Monitors tab is not visible if your Operator Client is connected to more than one Management Server.
	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.
	Map window	Displays a site map. Allows you to drag the map to display a particular section of the map.  If activated, a map is displayed automatically for each camera displayed in an Image pane. In this case, the camera must be configured on a map.

This manual guides you through the basic steps of the configuration and operation with Bosch VMS.

For detailed help and step-by-step instructions read the Configuration Manual and the Operator's Manual or use the Online Help. You find the manuals as PDF files on your Setup CD.

Bosch VMS Archive Player displays exported recordings.

#### 3 System overview

If you plan to install and configure Bosch VMS, participate in a system training on Bosch VMS. Refer to the Release Notes of the current Bosch VMS 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 Bosch VMS can be installed.

The Bosch VMS software modules can optionally be installed on one PC.

#### Important components

- Management Server (selectable in Setup): Stream management, alarm management, priority management, Management logbook, user management, device state management. Additional Enterprise System license: Managing Enterprise User Groups and Enterprise Accounts.
- Configuration Wizard: Easy and fast setup of a recording system.
- Configuration Client (selectable in Setup): System configuration and administration for Operator Client.
- Operator Client (selectable in Setup): Live monitoring, storage retrieval and playback, alarm and accessing multiple Management Server computers simultaneously.
- Video Recording Manager (selectable in Setup): Distributing storage capacities on iSCSI devices to the encoders, while handling load balancing between multiple iSCSI devices. Streaming playback video and audio data from iSCSI to Operator Clients.
- Mobile Video Service (selectable in Setup): Provides a transcoding service that transcodes the live and recorded video stream from a camera configured in Bosch VMS to the available network bandwidth. This service enables video clients like an iPhone or a Web client to receive transcoded streams, for example for unreliable network connections with limited bandwidth. Not supported on Windows XP.
- Web Client: You can access live and playback videos via Web browser.
- Mobile App: You can use the Mobile App on iPhone or iPad to access live and playback video.
- Bosch Video Streaming Gateway (selectable in Setup): Provides the integration of 3rd party cameras and NVR-like recording, e.g. in low-bandwidth networks.
- Cameo SDK (selectable in Setup): The Cameo SDK is used to embed Bosch VMS live and playback Image panes to your external third-party application. The Image panes follow the Bosch VMS based user permissions.
  - The Cameo SDK provides a subset of the Bosch VMS Operator Client functionalities that enables you to create applications similar to the Operator Client.
- Client Enterprise SDK: The Client Enterprise SDK is meant to control and monitor the behaviour of Operator Client of an Enterprise System by external applications. The SDK allows to browse devices that are accessible by the running, connected Operator Client and to control some UI functionalities.
- Client SDK / Server SDK: The Server SDK is used to control and monitor the Management Server by scripts and external applications. You can use those interfaces with a valid administrator account.
  - The Client SDK is used to control and monitor the Operator Client by external applications and scripts (part of the related server configuration).

#### 3.1 Hardware requirements

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

### 3.2 Software requirements

See the data sheet for Bosch VMS.

Bosch VMS must not be installed on a computer where you want to install Bosch VMS Archive Player.

### 3.3 License requirements

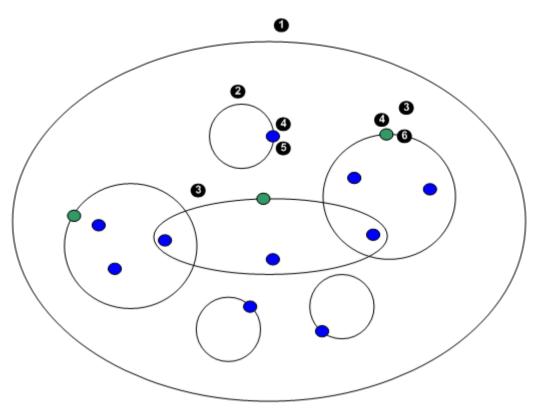
See the data sheet for Bosch VMS for the available licenses.

### 3.4 Supported system structures

An operator or installer can be responsible for the following system structures:

- Single server system
- Multi server system (Enterprise System)
- Multi system environment

System with access point for logon
Single server system, System access point: Management Server
Enterprise System, System access point: Enterprise Management Server



1	Multi system environment	4	System access point: Server on which logon request of an operator or installer is processed.
2	Single server system	5	Management Server
3	Multi server system	6	Enterprise Management Server

#### Use cases for multi system access

Two Bosch VMS features valid for multi system environments are available:

- **Enterprise System**
- Server Lookup

An operator might want to access a multi system environment for the following reasons:

- Configure multiple systems (Server Lookup)
- Maintenance and monitoring of multiple systems (Server Lookup)
- Alert (SMS, Email 3rd party) driven on-demand monitoring of multiple systems (Server Lookup)
- Simultaneous connection to multiple servers for seamless operation of one distributed system (Enterprise System)

#### **Related Topics**

- Enterprise System, page 14
- Server Lookup, page 18

# 4 Concepts

This chapter provides background information on selected issues.

### 4.1 Enterprise System

The target of a Bosch VMS Enterprise System is to enable a user of Operator Client to simultaneously access multiple Management Servers.

#### **Related Topics**

Accessing the system, page 22

#### 4.1.1 Scenarios

The following three scenarios are covered.

Scenario 1: A dedicated server plays the role of Enterprise Management Server. This
server has the only task to manage the simultaneous access of an Operator Client
workstation to multiple Management Servers.

An Operator Client workstation logs on to Enterprise Management Server. After successful logon the user of Operator Client has access to the devices of all configured Management Servers according to the permissions in his Enterprise User Group.

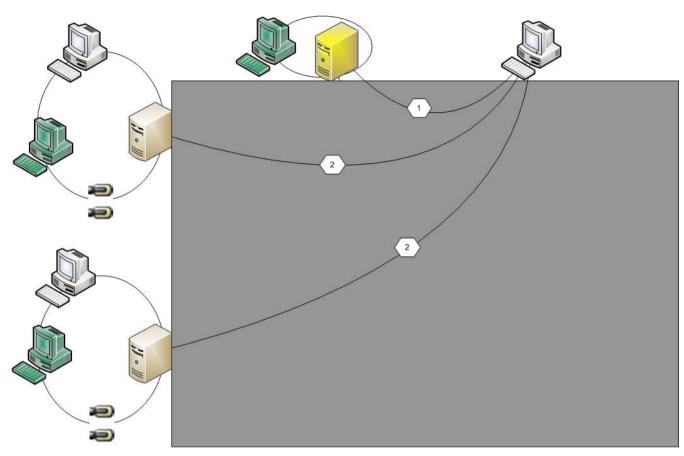


Figure 4.1: Enterprise Scenario 1

# ·	Management Server
	Operator Client
	Configuration Client
<b>=</b>	IP camera / encoder
<b>#</b>	Enterprise Management Server

Scenario 2: Combination of Enterprise Management Server and Management Server role.
 In this case the own Management Server must also be part of the Enterprise Management Server configuration.

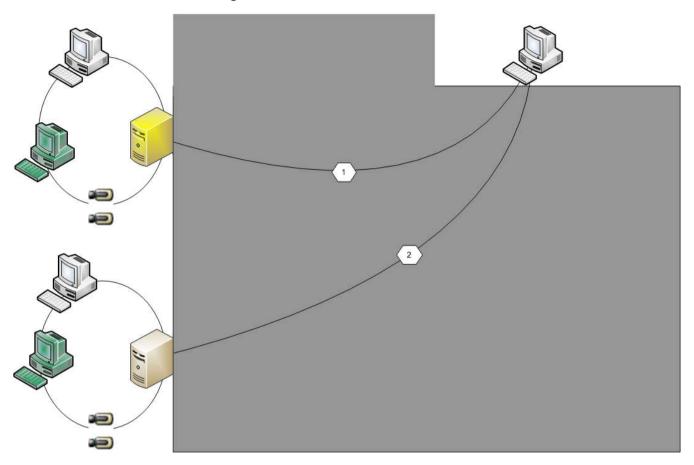
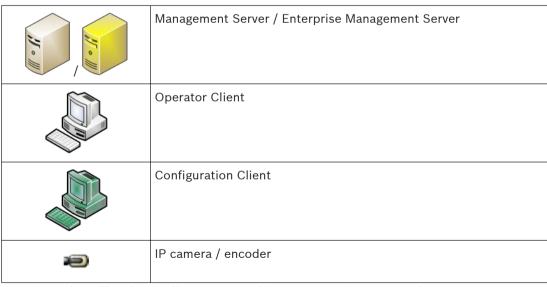


Figure 4.2: Enterprise Scenario 2



- **Scenario 3**: The classic client-server architecture remains supported.

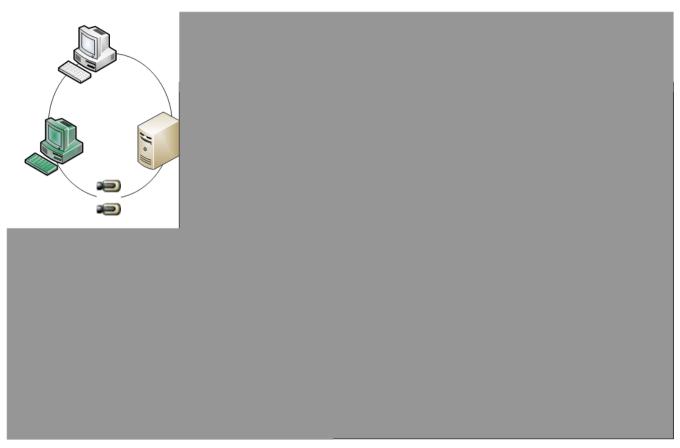


Figure 4.3: Classic Scenario 3

# ·	Management Server
	Operator Client
	Configuration Client
<b>=</b>	IP camera / encoder

#### 4.1.2 **Permissions**

#### **Permissions on an Enterprise System**

For an Enterprise System you configure the following permissions:

Operating permissions of Operator Client defining the user interface for operating in the Enterprise System, for example the user interface of the alarm monitor.

Use an Enterprise User Group. Configure it on the Enterprise Management Server.

Device permissions that should be available for operating in an Enterprise Management
 Server are defined on each Management Server.

Use Enterprise Accounts. Configure it on each Management Server.

#### Permissions on a single Management Server

For managing the access to one of the Management Servers, use the standard user group. You configure all permissions on this Management Server in this user group.

You can configure dual authorization user groups for standard user groups and for Enterprise User Groups.

### 4.1.3 Types of user groups

Туре	Contains	Available configuration settings	Where do you configure?	
User group	Users	<ul> <li>Operating and device permissions</li> </ul>	<ul><li>Management</li><li>Server</li></ul>	
Enterprise User Group	Users	<ul> <li>Operating permissions</li> <li>Per Management</li> <li>Server: Name of the corresponding</li> <li>Enterprise Access</li> <li>Accounts with logon credentials</li> </ul>	– Enterprise Management Server	
Enterprise Access	-	<ul><li>Device permissions</li><li>Account password</li></ul>	- Management Server	
Dual authorization user group	User groups	- See user groups - See user groups		
Enterprise dual authorization	Enterprise User Groups	- See Enterprise User Groups	<ul><li>See Enterprise</li><li>User Groups</li></ul>	

Table 4.1: User groups

#### 4.1.4 Licensing

Bosch VMS Enterprise (MBV-BENT) version license is required at each Enterprise Management Server to enable the feature.

For each Management Server assigned to one or more Enterprise User Groups, 1 license (MBV-XSUB) is required.

To update an existing MBV-BPRO Base license to an Enterprise System, you need an Enterprise Upgrade license (MBV-FEUP).

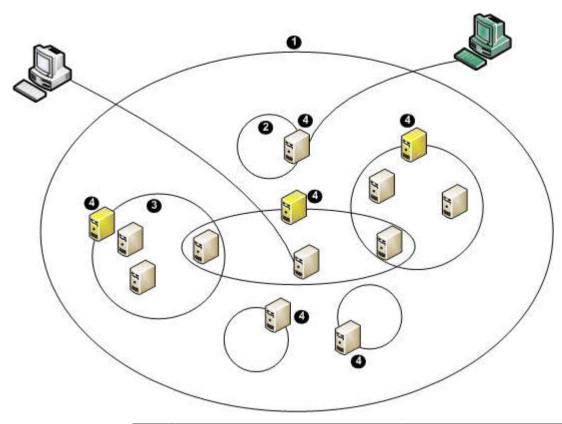
Each Workstation connecting to an Enterprise Management Server requests one MBV-XWST that is licensed at Enterprise Management Server. No additional MBV-XWST license is required on each Management Server if accessed via Enterprise Management Server.

### 4.2 Server Lookup

A single user of Configuration Client or Operator Client may want to connect to multiple system access points sequentially. This access is called Server Lookup. System access points can be Management Server or Enterprise Management Server.

Server Lookup supports you in locating system access points by their names or descriptions. The user retrieves the list of system access points during logon. He needs to connect to the server hosting the configuration with **Server List (Server List Provider**).

The following image shows an example for Server Lookup in a multi system environment:



1	Multi system environment	11011	Management Server
2	Single server system	#J- ///	Enterprise Management Server
3	Multi server system		Operator Client
4	System access point: Server on which logon request of Operator Client or Configuration Client is processed.		Configuration Client

When a client logs on to Enterprise Management Server, it is possible to get access to all Management Servers of this Enterprise System simultaneously.

#### **Related Topics**

Using Server Lookup, page 22

#### 4.3 **Alarm handling**

Alarms can be individually configured to be handled by one or more user groups. When an alarm occurs, it appears in the Alarm List of all users in the user groups configured to receive that alarm. When any one of these users starts to work on the alarm, it disappears from the Alarm List of all other users.

Alarms are displayed on a workstation's alarm monitor and optionally on analog monitors. This behavior is described in the following paragraphs.

#### Alarm flow

- 1. An alarm occurs in the system.
- 2. Alarm notifications appear in the Alarm Lists of all users configured for this alarm. Alarm video is immediately displayed on configured monitors. If it is an automatically displayed alarm (auto pop-up), the alarm video is also automatically displayed on the Operator Client workstation's alarm monitors.
  - If the alarm is configured as an auto-clear alarm, the alarm is removed from the Alarm List after the auto-clear time (configured in the Configuration Client).
  - On analog monitors, any quad views from VIP XDs are temporarily replaced by full-screen displays.
- One of the users accepts the alarm. The alarm video is then displayed on this user's
  workstation (if it is not already displayed via auto pop-up). The alarm is removed from all
  other Alarm Lists and alarm video displays.
- 4. The user who accepted the alarm invokes a workflow that can include reading an action plan and entering comments. This step is optional requirements for workflow can be configured by the administrator.
- 5. Finally, the user clears the alarm. This removes the alarm from his Alarm List and alarm display.
  - On an analog monitor group, the monitors return to the cameras that were displayed before the alarm occurred.

#### Alarm Image window

- 1. To display alarm video, the Alarm Image window replaces the Live or Playback Image window on the monitor that has been configured for alarm display.
- 2. Each alarm gets a row of Image panes. Up to 5 Image panes can be associated with each alarm. These Image panes can display live video, playback video, or maps.
  On an analog monitor group, each alarm can call up cameras on a row of analog monitors. The number of cameras in the row is limited by the number of columns in the analog monitor group. Monitors in the row that are not used for alarm video can be configured to either continue with their current display or to display a blank screen.
- 3. Higher priority alarms are displayed above lower priority alarms on both analog monitor rows and the Operator Client workstation display alarm rows.
- 4. If the Alarm Image window is completely full of Alarm Image rows and an additional alarm must be displayed, the lowest priority alarms "stack up" in the bottom row of the Alarm Image window. You can step through the stacked alarms with the controls at the left side of the alarm row.
  - You can step through the alarm stacks on analog monitor groups with control buttons in the **Monitors** window of the Operator Client workstation display. Analog monitors in alarm are indicated by red icons with blinking "LEDs".
  - The alarm title, time, and date can be optionally be displayed on all analog monitors, or only the first monitor in the alarm row.
- 5. For equal priority alarms, the administrator can configure the order behavior:
  - Last-in-First-out (LIFO) mode: in this configuration, new alarms are inserted above older alarms of the same priority.
  - First-in-First-out (FIFO) mode; in this configuration, new alarms are inserted below older alarms of the same priority.
- 6. An alarm's Image row can appear in the Alarm Image window in one of two ways:
  - When it is generated (auto pop-up). This occurs when the alarm priority is higher than display priority.
  - When the alarm is accepted. This occurs when the alarm priority is lower than display priority.

#### Auto pop-up alarms

Alarms can be configured to automatically display (pop up) in the Alarm Image window, based on the alarm priority. Each user group's live and playback displays are also assigned priorities. When alarms are received with priority higher than that of the user's display, the alarm automatically displays its alarm row in the Alarm Image window. If the Alarm Image window is not currently displayed, it automatically replaces the Live or Playback Image window on the alarm-enabled monitor.

Although auto pop-up alarms are displayed in the Alarm Image window, they are not automatically accepted. They can be displayed on multiple users' displays simultaneously. When a user accepts an auto pop-up alarm, it is removed from all other users Alarm Lists and alarm displays.

#### **Related Topics**

Handling alarms, page 50

### 5 Getting started

This chapter provides information on how to get started with Bosch VMS and with Bosch VMS Archive Player

### 5.1 Accessing the system

You access a system performing the following steps:

- 1. Perform one of the following steps to select the network address of the desired system:
  - Click a preselected list entry.
  - Enter a network address manually .
  - Select a network address using Server Lookup.
- 2. Log on to the desired system:
  - Single server system
  - Enterprise System

### 5.2 Using Server Lookup

A single user of Configuration Client or Operator Client may want to connect to multiple system access points sequentially. This access is called Server Lookup. System access points can be Management Server or Enterprise Management Server.

Server Lookup supports you in locating system access points by their names or descriptions. The user retrieves the list of system access points during logon. He needs to connect to the server hosting the configuration with **Server List (Server List Provider**).

#### To access:

- 1. Start Operator Client or Configuration Client.
  - The logon dialog box is displayed.
- In the Connection: list, select <Browse...>.
  - If private and public IP address has been configured for a server, this is indicated. If you select **<Browse...>** for the first time, the **Server List Provider** dialog box is displayed.
- 3. In the **(Enterprise) Management Server Address:** field, type in a valid network address of the desired server.
- 4. Enter a valid user name and password.
- 5. If required, click Remember Settings.
- Click OK.

The **Server Lookup** dialog box is displayed.

- 7. Select the desired server.
- 8. Click OK.
- If the selected server has both a private and a public network address, a message box is displayed asking whether you are using a computer located in the private network of the selected server.
  - The server name is added to the **Connection:** list in the logon dialog box.
- 10. Select this server in the Connection: list and click OK.
  If you have selected the Remember Settings check box, you can select this server directly when you again want to access this server.

### **5.3** Starting Operator Client

#### Note:

Before using the system, activate the licenses that you have ordered. The Configuration
 Manual or the Configuration Client Online Help describe how to activate the licenses.

- To be sure that your Bosch VMS uses the language that you need, please configure this language in your Configuration Client. See the Online Help for details.

If a newer version of the application is stored on the Management Server, this version is installed automatically by no-touch deployment when you log on.

#### **To start Operator Client:**

- From the **Start** menu, select **Programs** > Bosch VMS > Operator Client.
   The dialog box for logging on is displayed.
- 2. In the **User Name:** field, type your user name.

When you start the application for the first time, type Admin as user name, no password required.

To access multiple Management Server computers simultaneously, type the user name of a member of an Enterprise Group.

- 3. In the **Password:** field, type your password.
- 4. In the **Connection:** list, select the IP address or the DNS name of the Management Server or Enterprise Management Server.
- 5. Click **OK**.

If dual authorization has been configured for your user group, the next logon dialog is displayed.

A user of the configured second user group enters the required information.

The application starts.

If dual authorization is optional, just click **OK** again on the second logon dialog box. But you then only have the user rights of your user group and not the potentially extended user rights of your dual authorization group.

#### **To quit Operator Client:**

1. On the **System** menu, click **Exit**.

The application quits.

If you logged on to Operator Client as a user who is not authorized to quit the application, the **Enter Logoff Password** dialog box is displayed.

2. Ask a user with corresponding user rights to enter his user name and password to confirm the process.

### 5.4 Working offline

When Operator Client is disconnected from a Management Server, a respective overlay icon is displayed in the Logical Tree on the disconnected Management Server. You can continue working with Operator Client even if the disconnection lasts longer, but some functions are not available.

If the connection to the Management Server is reestablished, a respective overlay icon is displayed.

If a new configuration on a Management Server has been activated, a respective icon is displayed in the Logical Tree on the icon of the affected Management Server and a dialog box is displayed for some seconds. Accept or refuse the new configuration.

If your Operator Client instance is scheduled to log off at a specific point in time, this logoff occurs even when the connection to the Management Server is not reestablished at this point in time.

When disconnected from a Management Server, all devices are indicated with the  $\ref{thm:eq}$  icon. The state overlay of a device in the Logical Tree or on a map when Operator Client is disconnected from the Management Server

The following functions are not available in Operator Client when disconnected from the Management Server for this connection:

- Handling alarms, Alarm List
- Indication of recording
- Indication of state changes
- PTZ control locking
- Analog monitor group
- Scripts

### 5.5 Accepting a new configuration

When the system administrator activates a new configuration from within Configuration Client, each Operator Client is either immediately restarted automatically or the user of a workstation is informed about the new configuration and can accept it later. The system administrator configures which of these 2 cases occurs.

If the system administrator activated a new configuration without forcing each Operator Client workstation to accept the new configuration, a dialog box is displayed on all Operator Client workstations. The users can refuse or accept the new configuration. The dialog box is closed after a few seconds without user interaction. In this case the new configuration is refused. If a device (for example a camera) is removed from the system in the new configuration, some functions of this device are not available if you have refused the new configuration. If you change the password for a user or delete a user while this user is logged on, this user can still continue working with Operator Client after password change or deletion. If after password change or deletion the connection to Management Server is interrupted (for example after activating the configuration), the user cannot automatically reconnect to the Management Server again without logoff/logon at Operator Client.

#### To accept a new configuration:

Log off and then log on again.
 The new configuration is used now.

## 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.

### 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.

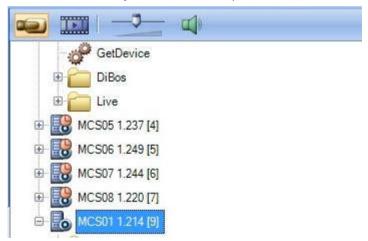
Management Server and all connected devices including encoders, decoders, VRM Server computers, DiBos and DVR devices must be in the same time zone. Operator Client computers (including Client SDK and Cameo SDK) and Configuration Client computers can be in other time zones than the Management Server.

If your Operator Client is located in another time zone than one or more connected Management Server computers, you can select for display in the user interface:

- Your local time
- UTC
- Time zone of the Management Server computer you are connected to

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

In the Logical Tree, is displayed on the device icon for all servers that do not share the time zone that is currently selected in the Operator Client:



You can select the time zone of a server 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.
  - Local 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:



### 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.
- 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 **Show 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:

Right-click anywhere on an Image pane and click **Zoom in**.

### 6.3 Displaying cameras from multiple Management Servers

#### Main window > Enterprise Logical Tree

Log on as a user of an Enterprise User Group.

In the Enterprise Logical Tree, expand the item of the desired Management Server. You can use the devices that are configured for this Management Server.

### 6.4 Finding an item in the Logical Tree

#### Main window

To find an item in the Logical Tree:

- Right-click the root node or a child node of the Logical Tree and click **Tree Search**.
   The **Search** dialog box is displayed. This dialog box appears on the monitor where it was closed earlier. It is always on top.
- 2. In the **Search for:** field, type a search string representing the display name of an item.
- 3. Click Find.
  - The first item that matches the search string is marked. If you want to display it in an Image pane, double-click it.
- 4. Click **Next** to mark the next matching item.
- Click Close.

### 6.5 Arranging Image panes

Main window

#### To arrange Image panes:

- 1. Move the slider for the Image pane pattern.
- 2. 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.
- 3. Drag a camera from one Image pane to another, if required.

#### To resize an Image pane:

- 1. Point to an Image pane corner. The pointer appears as a double-headed arrow.
- 2. Drag the corner to resize the Image pane.

### 6.6 Displaying the Alarm Image window

Main window

You can switch from the Image window to the Alarm Image window if at least one alarm is in the Alarm List.



#### Notice!

A map displayed in an Alarm Image pane is optimized for display and contains only the initial view of the basic .dwf file.

#### To display the Alarm Image window:

In an Image window, click

The Alarm Image window is displayed.

#### To display the Image window again:

In an Image window, click Live Mode or Playback Mode is displayed depending on the Mode that was displayed before.

### 6.7 Starting manual recording

Main window

You can start recording for each camera manually. The quality level of alarm recording mode is used. The duration of alarm recording is configured in the Configuration Client.

If the selected camera is already recording, the quality level is changed to alarm recording mode. The alarm recording can be protected when NVR recording is used. With VRM recording, the alarm recording is not protected.

Note: You cannot start manual recording for a DiBos camera.

#### To start recording:

- 1. Select an Image pane displaying a camera.
- Click .
   Recording is started.

#### Notes:

NVR recordings only: The icon in the Image pane bar changes to . Click to stop recording. If you do not click to stop recording, manual recording stops after the configured manual recording time. In the Timeline of the camera, the manual recording is displayed as alarm recording.

VRM recordings only: You cannot manually stop recording. The recording stops after the configured alarm recording time. In the Timeline of the camera, the pre-alarm recording is displayed as alarm recording, if pre-alarm recording is configured in Configuration Client.

### 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 preconfigured camera sequences are configured in the Configuration Client and appear in the Logical Tree.

A sequence can be configured to use more than one Image pane. If there are not enough Image panes to display the whole sequence, only those Image panes are displayed which fit into the Image window. The remaining Image 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.

The sequence is displayed indicated by the symbol.

2. Click a playback control icon of the Image window toolbar to control the sequence.

### 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.
- 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.

### 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.

### 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.

#### 6.12 **Using digital zoom**

#### Main window

Every Image pane provides a digital zoom function. This digital zoom has 11 levels: 1x, 1.35x, 1.8x, 2.5x, 3.3x, 4.5x, 6x, 8.2x, 11x, 14.9x, 20.1x.

When you save a Favorites View, the current setting of the digital zoom and the image section are saved.

When you click ....., the current setting of the digital zoom and the image section are used for instant playback.

When Operator Client restarts, the current setting of the digital zoom and the image section are retained.

#### To use digital zoom:

Right-click anywhere on an Image pane and click **Zoom in**.



- Repeat the previous step to zoom in.
- Drag the image to navigate to the desired image section.
- Right-click the Image pane and click **Zoom 1:1** to return to the original size.



#### Note:

You can also use the controls for digital zoom in the PTZ Control window.

#### 6.13 Saving a single image

Main window

#### To save a single image:

Select an Image pane.



Click 2.

A dialog box for saving the image file is displayed.

- Select the desired directory, enter a file name, and select the desired file type. JPG and BMP are available.
- 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.

#### 6.14 Printing a single image

Main window

#### To print a single image:

Select an Image pane.



A dialog box for selecting the printer is displayed.

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.

### 6.15 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.

### 6.16 Displaying or hiding the Image pane bars

Main window

#### To display / hide the toolbars:

Click to display the toolbars.



ck to hide the toolbars.

### 6.17 Displaying information on a camera

Main window

#### To display information:

Right-click an Image pane with a camera assigned and click Properties.
 A dialog box with the camera properties is displayed.

### 6.18 Starting instant playback



Main window >

You can view the recordings of a camera in an Image pane in the Live Mode.

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.

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.

### 6.19 Assigning a camera to a monitor



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:



2. Drag a camera from the **Logical Tree** window to the desired monitor.

### 6.20 Using audio mode

Main window

If available you can activate audio for a selected camera.

To hear the audio signal of multiple cameras simultaneously, activate multichannel audio mode.

You switch the audio mode in the Options dialog box (Extras menu, Options... command).

#### To activate / de-activate audio:

- 1. Select an Image pane.
- 2. Click to de-activate or to activate audio.

### 6.21 Displaying metadata (for NVR recordings only)



Main window >

You can display metadata of the selected camera such as ATM / POS / Barcode if available.

#### To display metadata in a separate window:

- 1. Select an Image pane.
- 2. In the Camera menu, click Show Metadata....

A window is displayed with the available metadata.

When you close the selected Image pane, the **Metadata** window is closed too.

### 6.22 Using the Intercom functionality



Main window >

You can use the Intercom functionality only when Live Mode is active.

Ensure that the microphone is active on your sound card and its volume is not 0. You perform this task in the Control Panel of your workstation computer. Additionally ensure that in the recording control of your sound card only the microphone is selected, not the stereo mix. For Windows 7: Disable all input devices except the one you want to use for Intercom functionality.



The following screenshot shows an example:

If you change the setting from stereo mix to microphone after the first start of Operator Client, the setting is overridden after the next start of Operator Client.

We recommend to use a headset instead of a microphone-loudspeaker combination to avoid acoustic feedback.

The Intercom functionality only works with an encoder that has both audio-in and audio-out. Ensure that the volume settings for the encoder microphone and loudspeakers are not 0. You perform this task in Configuration Client.

To use Intercom functionality on your workstation your user group must be granted to use it. You perform this task in Configuration Client.

In the **Options** dialog box, you can configure half duplex or full duplex mode.

#### To use Intercom functionality:

- 1. Select an Image pane with an audio encoder.
- 2. Click and hold the mouse button. If audio was off for this Image pane, it is switched on automatically.

The icon changes to 500.

Now you can talk. If configured, the other side can talk also, regardless whether the icon is clicked or not.

3. Release the mouse button. The transfer is interrupted. Audio remains on for this Image pane.



#### Notice!

An incoming auto pop-up alarm can interrupt the transfer.

### 6.23 Locking the control of a PTZ camera



Main window >

You can lock the control of a PTZ camera for other users. A user with a higher priority can take over the control and lock the camera control. A timeout can be configured for this explicit PTZ locking. If you only take over the control without manually locking it before, the control is locked for the user with lower priority for 5 seconds.

#### To lock a PTZ control:

- 1. Select one of the following items:
  - Image pane with PTZ camera
  - PTZ camera in the Logical Tree
  - PTZ camera in the Favorites Tree
  - PTZ camera in the Map window
- 2. Right-click the Image pane or the PTZ camera and click Lock.

The users with lower priorities cannot use the PTZ control any longer. On their displays a corresponding message box is displayed.

To stop the locking of the PTZ control, right-click the Image pane or the PTZ camera and click **Unlock**.

The locking ends automatically after a configured time period or when you log off.

### 6.24 Updating the reference image



Main window >

You can update the reference image.

#### To update the reference image:

- 1. Right-click an Image pane and click **Reference Image...**.
  - The **Reference Image** dialog box is displayed.
- 2. Click Update.

The image of the time when you click **Update** is displayed.

### 6.25 Controlling a monitor wall



Main window >

You can display cameras on a monitor wall even when your Operator Client is not connected to a Management Server.

#### To control:

- 1. Drag the monitor wall to an Image pane.
  - The monitor wall is displayed as an Image window.
- 2. Select a layout in the list.
- 3. Drag the desired cameras from the Logical Tree to the Image window of the monitor wall.
- 4. Drag the cameras to the desired Image panes of the monitor wall.

#### See also

Monitor Wall Image window, page 85

### 6.26 Displaying video via low bandwidth

Main window

You can play back the recordings of a camera or view live images of a camera with Operator Client even if you have a low bandwidth network connection between Bosch VMS and your Operator Client computer. For using low bandwidth networks, the VRM must be equipped with at least one transcoding device. This transcoding device is not configured in Bosch VMS. See the VRM documentation on how to configure a transcoding device. Each transcoding device allows for transcoding 1 stream. For each additional stream you need another transcoding device.

Transcoding is possible only for BVIP cameras connected to a VRM.

#### To enable transcoding:

- In the Logical Tree, right-click the desired camera and click Enable transcoding.
- This camera shows transcoded video when you drag the camera to an Image pane.

  In the toolbar of this Image pane, the icon is displayed.

  If all transcoding devices managed by the responsible VRM are already in use and an additional transcoding video is requested, the Image pane stays black. The title bar of the Image pane displays the following text: **Transcoder not available**

#### To disable transcoding:

- In the Logical Tree, right-click the desired camera and click Disable transcoding.
- ✓ This camera shows untranscoded video when you drag the camera to an Image pane. The ∰ icon disappears.

If the affected camera is already displayed in an Image pane, it continues displaying transcoded video until you close this Image pane.

### 6.27 Using TCP for reliable connection



Main window >

For each BVIP camera in your system you can establish a more reliable connection if required. This can be useful if you have for example connection losses due to high network load. You enable TCP for a more reliable connection.

#### To enable TCP:

- In the Logical Tree, right-click a camera and click **Enable TCP**.
- ✓ The connection to the camera is now established via TCP. The context menu entry of this camera changes to **Disable TCP** .

This setting is not changed until you select the **Disable TCP** context menu command for this camera.

### 7 Using maps and the PTZ cameras

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 Displaying a map

Main window

You can display a map in the **Map** window or in an Image pane. In the Image pane, the 4:3 ratio applies.



#### Notice!

A map displayed in an Alarm Image pane is optimized for display and contains only the initial view of the basic .dwf file.

#### To view a map in the map window:

Drag a map from the Logical Tree to the displayed, and drop the map on the Map window.
The map is displayed.

#### To view a map in an Image pane:

Drag a map from the Logical Tree window to an Image pane. The map is displayed in the Image pane.

### 7.2 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.

#### 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.

### 7.3 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 control functions:

1. Move the cursor on the Image pane which displays a PTZ camera. The cursor changes depending on the location in the Image pane.

- 2. Move the cursor to the left side of the Image pane.
  - The cursor changes to an arrow.
  - Click to swivel to the left direction in a small step. Keep the mouse button pressed to swivel continuously. Drag to the outside direction to accelerate.
- 3. Move the cursor to another direction and perform a corresponding tilt or swiveling task.
- 4. Move the cursor to the center of the Image pane.
  - The cursor changes to a magnifying class.
  - In the upper area, use the zooming in function.
  - In the lower area, use the zooming out function.

# 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 the Favorites Tree to create your own subset of the Logical Tree. At any time you can add or delete devices in the Favorites Tree.

Additionally, you can save the assignment of cameras or other objects to Image panes and the Image pane pattern.

At any time you can restore this View.

#### **Bookmark Tree**

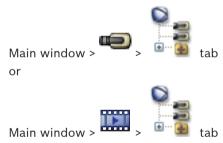
You can save a time period of live view or a recording in a bookmark. A bookmark saves a start and an end time, the cameras assigned to Image window at this time, and the entire Image

pane pattern. A time period of 0 seconds is possible. Bookmarks are saved in the 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.

# 8.1 Adding items to the Favorites Tree



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.

# 8.2 Creating/editing views



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

#### To create a new View:

- Arrange the cameras in the Image window in Live Mode and in Playback Mode.
   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.
- 2. In the Image window toolbar, click

A new View is added. Enter a name for the new View.

### To display a View:

▶ Double-click the View. The assignment saved in this View is displayed in the Image window.

Note: You can also right-click the View and click Load Cameo View to display.

#### To edit a View:

- 1. Double-click the View which you want to edit.
- 2. Make the required changes, e.g., assign cameras to Image panes.
- Right-click the required View and click Update Cameo View.

#### To rename a View:

- 1. Right-click the required View and click **Rename**.
- 2. Enter the name of the View and click press ENTER.

#### To delete a View:

Right-click the View and click Remove.
 The View is removed from the Favorites Tree.

# 8.3 Adding a bookmark

Main window > Assign desired cameras to Image panes

Main window > 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 .
- 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 83

# 8.4 Editing a bookmark



#### To edit a bookmark:

- 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 83

# 8.5 Loading a bookmark



## 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.

### See also

- Bookmarks window, page 82

# 8.6 Exporting bookmarks



## To export a single bookmark:

- 1. Click the tab
- Right-click a bookmark and click Export Bookmark.
   The Export Bookmark dialog box is displayed.
- 3. Make the appropriate settings.

### 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 recordings are exported to the selected data medium.

## To export multiple bookmarks:

- 1. Click the tab.
- 2. Right-click a bookmark and click Export Multiple Bookmarks.

The **Export Multiple Bookmarks** dialog box is displayed.

- 3. Make the appropriate settings.
- 4. Click Start Search.

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 recordings are exported to the selected data medium.

For detailed information on the various fields, see the Online Help for the appropriate application window.

## **Related Topics**

- Export Bookmark dialog box, page 83
- Export Multiple Bookmarks dialog box, page 84
- Timeline window, page 89

#### See also

- Export Bookmark dialog box, page 83
- Export Multiple Bookmarks dialog box, page 84
- Timeline window, page 89

# 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.

# 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 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.

If your Operator Client is located in another time zone than one or more connected Management Server computers, you can select for display in the user interface:

- Your local time
- UTC
- Time zone of the Management Server computer you are connected to

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

In the Logical Tree, is displayed on the device icon for all servers that do not share the time zone that is currently selected in the Operator Client:

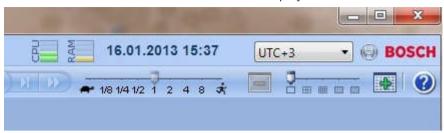


You can select the time zone of a server for displaying this time zone in Operator Client.

## 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.
  - Local 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:



# 9.2 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.



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.

# 9.3 Playing a specific recording mode



You can play specific recordings like alarm or video loss recording.

#### To play a specific recording mode:

In the list of recording modes, select the required one.

The Hairline jumps to this time. The images of the entered point in time are displayed in the Image window.

Click to jump to the previous change of the recording mode, or click to jump to the next change of the recording mode.

# 9.4 Playing recorded videos

## Note:

Bosch Allegiant cameras are not recorded within Bosch VMS.

### To play recorded videos:

- 1. Assign a camera to an Image pane.
- 2. Use a Timeline control for the required playing option.

# 9.5 Authenticating video data (for NVR recordings only)



The authenticity of all the cameras displayed in the Image window is checked to see whether they have been changed. You can only check the authenticity of DiBos and Bosch VMS NVR cameras. Other cameras are ignored.

If non-authentic data is found, the process stops and the date and time of theses data is displayed.

## To authenticate several images:

- 1. Using the Hairline, select the time period on the Timeline.
- 2. Right-click this time period and click **Verify Authenticity...**.
  - The **Verify Authenticity** dialog box is displayed.

The current Hairline value in the Timeline is copied to the **Start:** and **End:** lists. If required, change the values.

Click Verify to start authentication.
 A message shows you whether the video data is authentic.

# 9.6 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.

A system alarm is triggered if the video cannot be played at the set speed. The playback speed is then automatically reduced.

# 9.7 Protecting video



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

- 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.

#### Note:

To remove the protection, select the protected period in the Timeline, right-click and click **Unprotect Video...**.

# 9.8 Deleting video data



Main window > ----- >

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.

**DVR recordings:** Only DVR 700 supports the deletion of recordings. Deletion always starts with the beginning of the recordings of all cameras that are displayed in Operator Client, and ends with the point in time that you enter.

#### 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.

# 9.9 Exporting video data



Main window >

or



Main window >

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 (Bosch VMS Archive Player) or ASF format.

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

Data in ASF format can be played with standard software such as Windows Media Player.

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

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

If exporting video data on a hard drive was not successful, the already exported video data is deleted.

## To export a single bookmark:



2. Right-click a bookmark and click **Export Bookmark**.

The **Export Bookmark** dialog box is displayed.

3. Make the appropriate settings.

#### Click Export.

The size of the recordings to be exported is estimated. If free space is not enough, an error message is displayed.

The recordings are exported to the selected data medium.

For detailed information on the various fields, see the Online Help for the appropriate application window.

#### To export multiple bookmarks:



- 1.
- Right-click a bookmark and click **Export Multiple Bookmarks**.

The **Export Multiple Bookmarks** dialog box is displayed.

- Make the appropriate settings.
- 4. Click Start Search.

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 recordings are exported to the selected data medium.

For detailed information on the various fields, see the Online Help for the appropriate application window.

## To export a time period (only availabe in Playback Mode):



- Click the 1.
- 2. Using the Hairline, select the time period on the Timeline.



The **Export Video** dialog box is displayed.

The selected time period is copied to the **Start:** and **End:** fields.

- 4. Make the appropriate settings.
- Click **OK**. The files are exported to the selected data medium.

For detailed information on the various fields, see the Online Help for the appropriate application window.

## To export a single search entry (only availabe in Playback Mode):

Perform a search for video data.



- 3. Click an entry in the search result list.



4.

The **Export Video** dialog box is displayed.

- Make the appropriate settings.
- Click **OK**. The entry is exported to the selected data medium.

For detailed information on the various fields, see the Online Help for the appropriate application window.

#### 9.10 Importing video data



Main window >

Exported audio and video files can be imported to display their saved images.

- On the **Timeline** menu, click the **Load Exported Video...** command.
   The dialog box for opening export files is displayed.
- 2. Select the required file and click **Open**.

The imported video is displayed in the **Exports** window.

For playing the imported video, expand the entry and drag to an Image pane. If the camera has been exported on a computer where Operator Client was logged on to an Enterprise Management Server, the camera name is displayed with the name of this camera's Management Server as a prefix.

The Export Tree entries are removed when you exit the Operator Client.

For removing the exported video, right-click and click **Unload Expor** 

# 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.



#### Notice!

Forensic Search must be licensed and it must be enabled on your workstation.

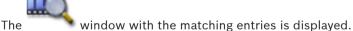
- 1. Select the Image pane where you want to find motion.
- 2. Using the Hairline, select the time period on the Timeline and select the corresponding Image pane.
- 3. Click

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 2.

- 4. In the **Algorithm:** list, select an IVA entry.
- In the Surveillance Tasks field, configure your Forensic Search.
   See the user documentation of the IVA version that you are using.
- 6. Click **Search** to start the Forensic Search.



7. For playing the corresponding video, double-click the entry. The corresponding video is displayed.

# 9.12 Finding motion (only NVR recordings)

Main window > tab > Select an Image pane
You can check the video in the selected Image pane for motion.

#### To find motion:

- 1. Select the Image pane where you want to find motion.
- 2. Using the Hairline, select the time period on the Timeline.
- Click . The Motion Search dialog box is displayed. The selected time period is copied to the Start: and End: fields.
  - If required, change the values.
- 4. If required, select **Display Grid**. A grid is placed above the image. You can select every cell in the grid for searching.
- Select the cells you want to check for motion. To select the cells, drag an area.
   The selected area is displayed in half transparent yellow.
   To clear a selected area, drag the selected area again.
- 6. Click Start Search. The search results for the selected Image pane are listed in the



window

7. For playing the corresponding video, double-click the entry. The corresponding video is displayed.

# 9.13 Finding Logbook entries

Main window > Tools menu > Find in Logbook... command > Select Search Parameters dialog box

or

Main window > Tools menu > Find in Logbook... command > Please select a Server dialog box > Select Search Parameters dialog box

In the Logbook, you can search for particular events, alarms, devices, and strings of events. You can save the search criteria as a filter. If you select another time zone, the date and time display of the Logbook search results is changed accordingly.

## To find Logbook entries:

- 1. In an Enterprise System, select the desired Management Server for searching.
- 2. In the **Filter** list, select a pre-defined filter if available.

  A filter contains all the settings that you make in this dialog box.
  - You can save, load, and delete the selected filter. You can reset the settings of the selected filter.
- 3. In the **Date and Time** field, enter start date and time and end date and time for the search process.
- 4. In the Result Count list, limit the number of matching entries that result from the search.
- 5. Click **Add Event** to limit the search to specific events.
- 6. Click **ATM / POS** to enter search criteria for these devices.
- 7. Click **Virtual Inputs** to enter search criteria for these devices.
- 8. In the **Alarms** field, select search criteria to limit the search to specific alarms.
- 9. Click Add Device to limit the search to specific devices.
- 10. In the **Details:** field, type a search string. You can use \* as a wildcard.
- 11. In the **User:** field, type a user name to search for.
- 12. Click Search.

The **Logbook Results:** dialog box with the matching entries is displayed.

For detailed information on the various fields, see the Online Help for the appropriate application window.

#### Notes:

You can remove events or devices from the search.

# 9.14 Finding recorded video data

Main window > Tools menu > Find Video... command > Select Search Parameters dialog box

or

Main window > Tools menu > Find in Logbook... command > Please select a Server dialog box > Select Search Parameters dialog box

For detailed information on the various fields, see the Online Help for the appropriate application window.

#### To find video data:

- 1. Enter or select the required search criteria.
- 2. Click Search.



The window with the matching entries is displayed.

3. For playing the corresponding video, double-click the entry. The corresponding video is displayed.

# 9.15 Displaying video via low bandwidth

Main window

You can play back the recordings of a camera or view live images of a camera with Operator Client even if you have a low bandwidth network connection between Bosch VMS and your Operator Client computer. For using low bandwidth networks, the VRM must be equipped with at least one transcoding device. This transcoding device is not configured in Bosch VMS. See the VRM documentation on how to configure a transcoding device. Each transcoding device allows for transcoding 1 stream. For each additional stream you need another transcoding device.

Transcoding is possible only for BVIP cameras connected to a VRM.

### To enable transcoding:

- In the Logical Tree, right-click the desired camera and click **Enable transcoding**.
- This camera shows transcoded video when you drag the camera to an Image pane.

  In the toolbar of this Image pane, the icon is displayed.

  If all transcoding devices managed by the responsible VRM are already in use and an additional transcoding video is requested, the Image pane stays black. The title bar of the Image pane displays the following text: **Transcoder not available**

### To disable transcoding:

- In the Logical Tree, right-click the desired camera and click **Disable transcoding**.
- ✓ This camera shows untranscoded video when you drag the camera to an Image pane.

  The ∰ icon disappears.

If the affected camera is already displayed in an Image pane, it continues displaying transcoded video until you close this Image pane.

# 10 Handling alarms

This chapter provides information on how to handle alarms.

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



#### Notice!

A map displayed in an Alarm Image pane is optimized for display and contains only the initial view of the basic .dwf file.

# 10.1 Accepting an alarm



You can accept a single alarm or multiple alarms for clearing or starting a workflow.

#### To accept an alarm:



- 1. Select the desired alarm entry and click
- 2. For returning to the Image window, click

When an alarm is accepted, several things happen simultaneously:

- The alarm is removed from Alarm Lists of all other users.
- If not already displayed, an Alarm Image window replaces the Live Image window on the monitor that has been enabled for alarms.
- The alarm content (live video, instant playback video, or site maps) is shown in a row of Alarm Image panes in the Alarm Image window.
- If there is a workflow associated with the alarm, the workflow button is enabled. You can now clear the alarm or start a workflow. If the alarm has been configured to "force workflow", then you must complete the workflow before you can clear the alarm.

## To display an alarm camera on an analog monitor:

Drag the camera image from its Alarm Image pane to an analog monitor group.

# 10.2 Adding comments to an alarm



#### To add a comment to an alarm:



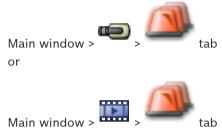
1. Click

The Workflow dialog box is displayed for entering a comment and displaying the action plan for this alarm. If no action plan is assigned to the alarm, the dialog box only displays the **Comment:** field.

- 2. In the **Comment:** field, type your comment.
- 3. Click Close.
- 4. Clear the alarm.

The comment is added as a separate entry in the Logbook and added to the alarm entry in the Logbook.

# 10.3 Clearing an alarm



#### To clear an alarm:

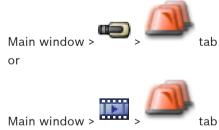


Select the desired alarm entries and click

If the alarm has the Comment or Force Workflow attribute, you cannot clear the alarm directly. In these cases you must first display the action plan and enter a comment. The alarm is cleared and removed from your Alarm List.

If no other alarms are currently being displayed, the Alarm Image window is closed and the Image pane is displayed.

# 10.4 Customizing the Alarm List window



## To sort the table:

- 1. Click a column heading.
  - The arrow in the column heading indicates whether the table is sorted in ascending or descending order.
- 2. To change the sorting order, click the column heading again.

### To add or remove columns:

Right-click the column heading and click a marked entry to remove the corresponding column or click an unmarked entry to add the corresponding column.

### To change the sequence of columns:

Drag a column title and move it to the required position.

### To change the column width:

- Point to the right border of the column heading. The pointer becomes a double-headed arrow . Drag the column border to the left or the right.
- To quickly make the column wide enough to show all of its contents, double-click the right border of the column heading.

# 10.5 Displaying the Live Image window



Main window > Alarm Image window

You can switch to the Live or Playback Image window when the Alarm Image window is displayed.

### To display the Image window:

In an Alarm Image window, click . The Image window is displayed.

# 10.6 Starting a workflow

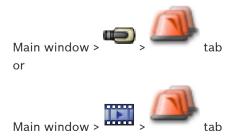


### To start a workflow:

- 1. Select the required alarm entry and click .

  If this alarm has been configured to force a workflow, the action plan is displayed (if configured for this alarm). Additionally you can enter a comment if this is configured.
- 2. Perform the required actions.
- 3. Clear the alarm.

# 10.7 Un-accepting an alarm



53

When you recall the acceptance of an alarm, it returns to Active state in your Alarm List, and it reappears in the Alarm Lists of all users that originally received the alarm.

# To "un-accept" an alarm:



Select the accepted alarm entry and click The alarm is displayed as active again.

# 11 Using a CCTV keyboard

This chapter describes how to use Bosch VMS Operator Client with a Bosch IntuiKey keyboard or a KBD Universal XF keyboard.

# 11.1 Using KBD Universal XF keyboard

You can use the VideoTec DCZ keyboard as a USB keyboard for Bosch VMS.

See http://www.videotec.com/en/page 617.html for details.

Attach the keyboard template for Bosch VMS to the keyboard before use.

You can configure the keyboard for use by a left-handed operator. Refer to the Instructions Manual delivered with the KBD Universal XF keyboard.

## 11.1.1 KBD Universal XF keyboard user interface

The following table lists the icons on the keyboard template and their respective function.

Icon	Function
1	Trigger a user event, only available with single Management Server
	Audio on / off Blinking indicates that the function is enabled.
•	Start /stop alarm recording
盟	Toggle between Live Mode and Playback Mode Blinking indicates that the function is enabled.
<b>\$</b>	Toggle selected Image pane between Live Mode and instant playback. Blinking indicates that the function is enabled.
<b>5</b>	Load a sequence. Enter a valid sequence number and confirm with <b>OK</b> .  Use the playback buttons for controlling the sequence.  Blinking indicates that the input of a number is required.
<b>E6</b>	Reduce number of Image panes
<b>6</b>	Increase number of Image panes
	Full-screen on / off
<b>Z</b>	Maximize / restore selected Image pane
ESC	Breaks the entering of a number. Press twice to close selected Image pane.

Icon	Function
ок	Confirm a number entry.
<b>B</b>	PTZ mode on/off. Blinking indicates that the function is enabled.
Ş	Set PTZ position. Enter a valid number for a preset and confirm with <b>OK</b> . Blinking indicates that the input of a number is required.
	Focus far
*	Focus near
<b>\$</b>	Iris closed
<b>S</b>	Iris open
口	Analog monitor mode on /off. Enter a valid monitor number, press <b>OK</b> , enter a valid camera number and press <b>OK</b> .  Blinking indicates that the input of a number is required.
	Set the default Management Server, only available when you log on to Operator Client as a user of an Enterprise User Group. Enter a valid server number and confirm with <b>OK</b> .  Blinking indicates that the input of a number is required.
4	Fast backward (stepwise)
•	Play backward
	Pause
<b>•</b>	Play
<b>&gt;</b>	Fast forward (stepwise)

When a button is not illuminated, it does not have any function. All illuminated buttons have a function.

When a button is blinking, its function is active, for example Playback button is blinking means that the Playback Mode is active. Press the button to toggle to the other state, for example pressing the blinking Playback button switches to Live Mode.

Enter a number and confirm with OK to display the respective camera in the selected Image pane.

# 11.2 Bosch IntuiKey keyboard user interface

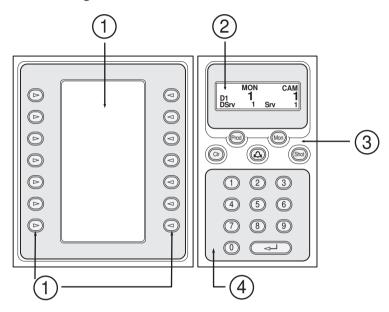


## Notice!

Every input on the keyboard is cleared after some seconds if no further input is made.

This chapter describes the user interface of the Bosch IntuiKey keyboard.

The following illustration shows the various interface elements of the keyboard:



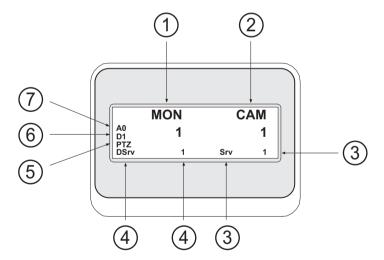
1	Softkeys and softkey display	Allow you to use a fixed set of commands or to control the Logical Tree. The commands displayed in the softkey display change depending on the operation mode.
2	Status display	Changes dynamically and displays information on the current operation mode.

3	Function keys	Allow you to control certain functions directly.  Prod: Starts a scan process to find the connected workstation. If scanning is successful: In the softkey display, Terminal and Keyboard Control menus are displayed. For selecting Bosch VMS, press the Terminal softkey.  Mon: Allows you to enter a monitor number (digital or analog monitor).  Clr: Clears any numeric entry or has a Backfunction.  Cir: Currently not supported.  Shot: Allows you to select a camera pre-position or to leave Selection mode.
4	Numeric keypad with ENTER key	Allows you to enter logical numbers. The number is displayed in the status display.  Unless preceded by pressing the Mon or Shot key, a numeric entry is interpreted as a logical camera number. The camera with the entered number is displayed in an Image pane or an analog monitor.

# 11.2.1 Status display

The status display changes dynamically to display information about the keyboard's present mode of operation.

The following illustration shows the various elements of the status display:



1	Monitor	Displays the selected analog monitor or Image pane number.
2	Camera	Displays the selected camera number.
3	Server	Displays the server number of the Management Server where the currently selected camera is configured.

4	Default Server	Displays the server number of the Management Server of an Enterprise System that the keyboard uses as default server. The Logical Tree of this server is displayed in the Tree Mode.
5	PTZ / JOGSHUTTLE	Displays the current operation mode.
6	D1	Displays the selected computer monitor number.
7	AO	Displays the selected analog monitor number.

# 11.3 Using a Bosch IntuiKey keyboard connected to a workstation

A keyboard connected to a Bosch VMS workstation offers a wide variety of features. Both the analog and the digital mode are available.

If the keyboard is connected to a decoder, the feature set is reduced. Only the analog mode is available.

When connected to a workstation that is using an Enterprise System, you must first select the desired Management Server and then the camera configured on this Management Server.

# 11.3.1 Starting the keyboard

The keyboard must be connected to a COM port of a workstation.

- 1. Start the Operator Client on the workstation.
- 2. Press the Prod button.

The keyboard scans for connected devices.

3. Press the Terminal softkey.

The Selection Mode is displayed.

# 11.3.2 Entering operation modes

You can use the keyboard in the following modes:

Selection Mode

This mode allows you to select an Image pane by moving the joystick in the desired direction.

PTZ Mode

This mode allows you to control fixed and PTZ cameras, maps, and documents in Live Mode.

Jogshuttle Mode

This mode allows you to control cameras in instant playback or in Playback Mode.

#### To enter Selection Mode:

1. Start the Operator Client and the keyboard.

or

2. Press ENTER to leave PTZ or Jogshuttle Mode and to return to Selection Mode.

## To enter PTZ Mode:

- 1. Select a PTZ camera.
- 2. Press Shot.

To start a preposition, press Shot again, press the number of a preposition, and press ENTER.

## To enter Jogshuttle Mode:

- 1. Start Playback Mode.
- 2. Press Shot.

## To leave PTZ or Jogshuttle Mode:

Press ENTER to leave PTZ or Jogshuttle Mode and start Selection Mode again.

## 11.3.3 Displaying cameras

Enter a numeric command to display the camera with this logical number in the active Image pane or analog monitor.

To display cameras of an Enterprise System, select the Management Server where these cameras are configured.

#### Toggling between analog mode and workstation mode

Press Mon twice.

### Displaying a camera in a computer monitor

- 1. Switch to a digital mode.
- 2. Press Mon, press 1 4 to select the desired workstation monitor, press the number of the desired Image pane and press ENTER.
  - The numbering of Image panes is from left to right and top to bottom.
- 3. Press the desired number of the camera and press ENTER.

The desired camera is displayed.

Example: Press Mon, 412, and ENTER. Then press 7 and ENTER. Camera 7 is displayed on the 12th Image pane on workstation monitor 4.

### Selecting a Management Server of an Enterprise System:

- 1. Press NEXT.
- 2. Press the softkey and enter the server number.

The server number is configured in Configuration Client in the **Server Number** list. When you now enter the logical number of a camera, a camera configured on this Management Server is displayed.

#### Displaying a camera in an analog monitor

- 1. Switch to analog mode.
- 2. Press Mon, press the number of the desired monitor, and press ENTER.
  - Monitor numbers are configured in the Configuration Client.
- 3. Press the desired number of the camera and press ENTER.

The desired camera is displayed.

Example: Press Mon, 3, and ENTER. Then press 4 and ENTER. Camera 4 is displayed in the 3rd analog monitor.



### Notice!

When you call up a PTZ camera by a numeric command, the system automatically enters PTZ mode.

## 11.3.4 Using the joystick

In Selection Mode, the joystick allows you to use the following features:

- Tilt the joystick to select an Image pane.

In PTZ Mode, the joystick allows you to use the following features:

- Twist the joystick to zoom in and out.
- Tilt the joystick to pan and tilt a PTZ camera.
- Use Focus and Iris buttons for a PTZ camera.

In Jogshuttle Mode, twist the joystick to use the following features:

- Play forward/backward as long as you twist.
- Change the playback speed: Speed depends on the degree of rotation.
- Stop a video when playing.

In Jogshuttle Mode, tilt the joystick to use the following features:

- Tilt up / down when video is stopped: Play forward / backward.

- Tilt up / down when video is playing: Set the playback speed.
- Tilt right / left: Pause and step forward / backward.

In Jogshuttle Mode, the Focus and Iris buttons allow you to use the following feature:

- Press Focus or Iris to move the hairline in the Timeline forward or backward. Focus
  moves the hairline for a larger amount of time forward or backward, Iris moves the
  hairline for a smaller amount of time forward or backward.
- To lock the system in the current playback speed, press the Shot button while twisting the joystick.

## 11.3.5 Using softkeys

The following operation modes are available:

- Tree Mode
  - You use this operation mode to control devices that are available in the Logical Tree of the Operator Client.
- Command Mode

You use this operation mode to send commands like switch to Playback Mode.

### To toggle between Tree Mode and Command Mode:

- In the Tree Mode: Press the left Level Up softkey as often as needed to display the root level and then press the Exit softkey to display the Command Mode.
- 2. In the Command Mode: Press the Tree Mode softkey.

#### To use the Logical Tree mode:

Switch to the Tree Mode.

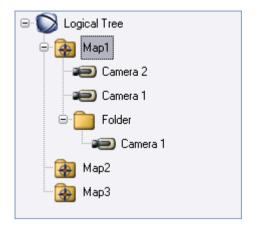
Right side of the softkey display:

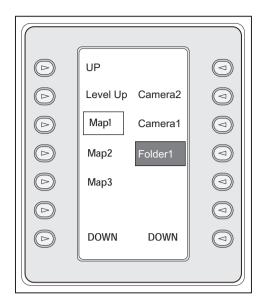
Press a softkey to control the item (e.g. display a camera or switch a relay).
When you press a map or a folder (black background), it moves to the left side. The right side displays the its content.

Left side of the softkey display:

- 1. Press a softkey on the left side to select a folder or a map and to display its content on the right side of the softkey display.
  - To display a map, press the softkey once to mark it (with a rectangle) and press the softkey again to display it in the selected Image pane.
- 2. Press Level Up to enter the next upper level of the Logical Tree.
- 3. Press UP to move the selection upward or DOWN to move downward.

The following figures show an example of a Logical Tree and its representation on the softkey display of the keyboard.





#### To use the Command Mode:

- 1. Switch to the Command Mode.
- 2. Press a softkey to execute the desired command.

The following commands are available:

- D: Load a sequence. In the **Status Display**, enter the sequence number.
- Sequence play, pause
- \_ **K** / **M** : Sequence step forward / backward
- 🎜: Maximize / restore selected Image pane
- X: Close selected Image pane
- MODE: Toggle between Live Mode and Playback Mode
- REPLAY: Toggle selected Image pane between Live Mode and instant playback
- Show more Image panes / less Image panes
- REC / REC: Start /stop alarm recording
- \_ Q: Audio on / off
- NEXT: Switch to next page
- 1 / 2 / 3 / 4: Trigger a user event (1-4), only available with single Management Server
- : Set the default Management Server, only available when you log on to Operator Client as a user of an Enterprise User Group.
- Image pane bars on / off
- Z: Full-screen on / off

# 11.4 Using a Bosch IntuiKey keyboard connected to a decoder

A keyboard connected to decoder gives you access to the Management Server without Operator Client software. Hence, you must log on. Only the analog mode is available.

## 11.4.1 Starting the keyboard

After starting the keyboard you must log on to the Management Server.



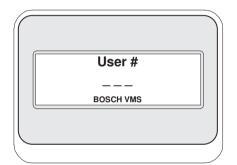
#### Notice!

Only Bosch VMS users with number-only user names and number-only passwords can use the analog mode of a Bosch IntuiKey keyboard.

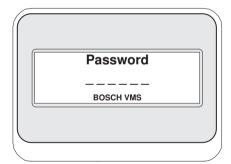
The user must have access rights for the decoder connected to the Bosch IntuiKey keyboard.

### To start the keyboard:

Press the Terminal softkey.The following logon display is shown:



• Enter the user name.



After successful logon, the Terminal and Keyboard Control softkeys are displayed in the softkey display.

# 11.4.2 Displaying cameras

- Press Mon, press the number of the desired monitor, and press ENTER.
   Monitor numbers are configured in the Configuration Client.
- 2. Press the desired number of the camera and press ENTER.

The desired camera is displayed.

Example: Press Mon, 3, and ENTER. Then press 4 and ENTER. Camera 4 is displayed in the 3rd analog monitor.

When the selected monitor displays a PTZ camera, the keyboard switches to PTZ mode automatically.

## 11.4.3 Using the joystick

The joystick allows you to use the following features:

- Twist the joystick to zoom in and out.
- Tilt the joystick to pan and tilt a PTZ camera.
- Use Focus and Iris buttons for a PTZ camera.

# 11.4.4 Using softkeys

The following operation mode is available:

Command Mode

# To use the Command Mode:

Press a softkey to execute the desired command.

The following commands are available:

- Start /stop alarm recording
- Log off

# 12 User interface

This chapter contains information on all windows available in Operator Client of Bosch VMS.

# 12.1 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.

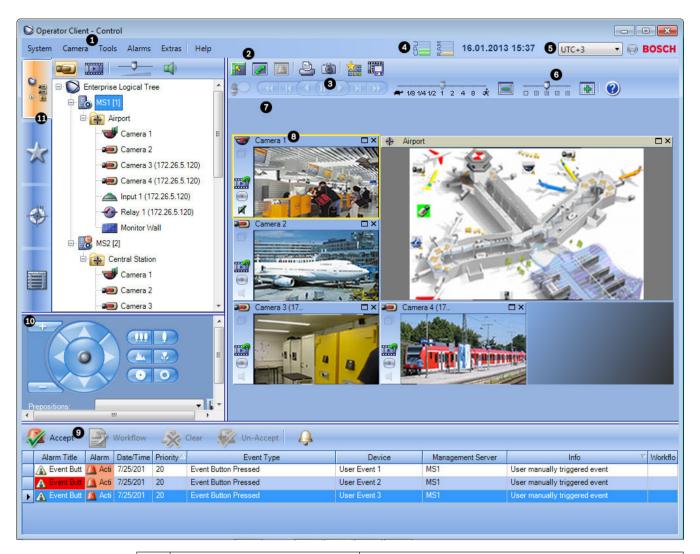
If an incoming alarm has a lower priority than the currently displayed Image window, the



tab starts blinking and indicates an alarm.

If an incoming alarm has a higher priority than the currently displayed Image window, the incoming alarm is automatically being displayed (automatic pop-up alarm).

65



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 in the Logical Tree is located in another time zone as your Operator Client.
6	Slider for Image pane pattern	Allows you to select the required number of 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).
9	Alarm List window	Displays all alarms that the system generates. Allows you to accept or clear an alarm or to start a workflow, for example, by sending an E-mail to a maintenance person. The Alarm List is not being displayed, when the connection to the Management Server is lost.
10	Monitors window (only available if at least one analog monitor group has been configured)	Displays the configured analog monitor groups.  Allows you to switch to the next or previous analog monitor group if available.  Note:  The Monitors tab is not visible if your Operator Client is connected to more than one Management Server.
	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.
	Map window	Displays a site map. Allows you to drag the map to display a particular section of the map.  If activated, a map is displayed automatically for each camera displayed in an Image pane. In this case, the camera must be configured on a map.

## **Detailed information:**

- Menu commands, page 74
- Logical Tree window, page 80
- Favorites Tree window, page 81
- Map window, page 85
- PTZ Control window, page 86
- Monitors window, page 87
- Image window, page 87
- Image pane, page 88
- Alarm List window, page 93

67

#### **Playback Mode window** 12.2

Main window >

You can right-click to display the context menu.

If an incoming alarm has a lower priority than the currently displayed Image window, the

tab starts blinking and indicates an alarm. If the incoming alarm has a higher priority than the Live or Playback Image window, the Alarm Image window is displayed automatically. The priorities are configured in the Configuration Client.



	T	
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	Performance meter	Displays the CPU usage and the memory usage.
4	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 in the Logical Tree is located in another time zone as your Operator Client.
5	Slider for Image pane pattern	Allows you to select the required number of Image panes.
6	Image window	Displays the Image panes. Allows you to arrange the Image panes.
7	Image pane	Displays a camera, a map, an image, a document (HTML file).

69

8	Timeline window	Allows to you to navigate through the recorded videos.  Allows you to find motion.
	Motion Search Results window	
	Video Search Results window	Allows you to find recorded videos.
	Alarm List window	Displays all alarms that the system generates. Allows you to accept or clear an alarm or to start a workflow, for example, by sending an E-mail to a maintenance person. The Alarm List is not being displayed, when the connection to the Management Server is lost.
9	Monitors window (only available if at least one analog monitor group has been configured)	Displays the configured analog monitor groups.  Allows you to switch to the next or previous analog monitor group if available.  Note:  The Monitors tab is not visible if your Operator Client is connected to more than one Management Server.
	PTZ Control window	Allows you to control a PTZ camera.
10	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.

wind	Map ow	Displays a site map. Allows you to drag the map to display a particular section of the map.  If activated, a map is displayed automatically for each camera displayed in an Image pane. In this case, the camera must be configured on a map.
wind	Exports	Allows you to load exported video data to display it or to search for particular data.
wind	Bookmarks ow	Allows to manage bookmarks.

### **Detailed information:**

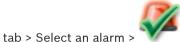
- Menu commands, page 74
- Logical Tree window, page 80
- Favorites Tree window, page 81
- Exports window, page 85
- Map window, page 85
- PTZ Control window, page 86
- Monitors window, page 87
- Image window, page 87
- Image pane, page 88
- Timeline window, page 89
- Motion Search Results window, page 93
- Video Search Results window, page 93
- Alarm List window, page 93

# 12.3 Alarm Mode (Alarm Display)









Main window >

The Alarm Image window displays live or instant playback video from a camera to be displayed in case of an alarm. The Alarm Image window is displayed automatically if the incoming alarm has a higher priority than the Live or Playback Image window. The priorities are configured in the Configuration Client.

Allows you to view the alarm cameras. Alarm cameras are configured in the Configuration Client.

If an incoming alarm has a lower priority than the currently displayed Image window, the



tab starts blinking and indicates an alarm.

When more alarms are displayed than Alarm Image rows are available, the display in the last row is sequenced. You can control the alarm sequence with the playback controls in the Alarm Image window toolbar. You cannot perform instant playback in the last row.



# Notice!

A map displayed in an Alarm Image pane is optimized for display and contains only the initial view of the basic .dwf file.



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 in the Logical Tree is located in another time zone as your Operator Client.
6	Alarm Image window	Displays the Alarm Image panes.
7	Alarm Image pane	Displays a camera, a map, an image, a document (HTML file).

8	Alarm priority	Displays the priority value that was configured in the Configuration Client for the automatic display behavior.
9	Time	Displays the time when the alarm was triggered.
10	Alarm Sequence buttons	Click to display the previous or next Alarm Image pane.
11	Number of alarms	Displays the number of the currently displayed alarm and the number of all alarms.
12	Alarm List window	Displays all alarms the system generates.  Allows you to accept or clear an alarm or to start a workflow, for example, by sending an E-mail to a maintenance person.  The Alarm List is not being displayed, when the connection to the Management Server is lost.
13	Event type	Indicates the type of event that triggered the alarm.
14	Monitors window (only available if at least one analog monitor group has been configured)	Displays the configured analog monitor groups. Allows you to switch to the next or previous analog monitor group if available.  Note: The Monitors tab is not visible if your Operator Client is connected to more than one Management Server.
	PTZ Control window	Allows you to control a PTZ camera.
15	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 you to manage bookmarks.
	Map window	Displays a site map. Allows you to drag the map to display a particular section of the map.  If activated, a map is displayed automatically for each camera displayed in an Image pane. In this case, the camera must be configured on a map.

## **Detailed information:**

- Menu commands, page 74
- Logical Tree window, page 80
- Favorites Tree window, page 81
- Map window, page 85

- PTZ Control window, page 86
- Monitors window, page 87
- Image window, page 87
- Image pane, page 88
- Alarm List window, page 93

## 12.4 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 <b>Reference Image</b> dialog box for the currently selected Image pane. (Not in Playback Mode)		
Show Metadata	Displays the <b>Metadata</b> window with metadata if available. (Not in Live Mode)		
Close	Closes the selected Image pane.		
Tools menu commands			
Find in Logbook	Displays the Select Search Parameters and the Logbook Results: dialog box.		
	When you logged on as a user of an Enterprise User Group, the <b>Please select a Server</b> dialog box is displayed.		

Find Video	Available only in Playback Mode. Click to display the <b>Select Search Parameters</b> dialog box.
Toggle Image Pane Bars	Hides or displays the Image pane bars.
Show Less Image Panes	Decreases the number of displayed Image panes.
Show More Image Panes	Increases the number of displayed Image panes.
Timeline menu commands (Playback M	ode 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 <b>Play</b> to resume.
Reverse Play	Plays backward from the current position of the hairline.
Protect Video	Displays the <b>Protect Video</b> dialog box.
Unprotect Video	Displays the <b>Unprotect Video</b> dialog box.
Delete Video	Displays the <b>Delete Video</b> dialog box.
Verify Authenticity	Displays the <b>Verify Authenticity</b> dialog box. (Only for NVR recordings)
Export Video	Displays the <b>Export Video</b> dialog box.
Load Exported Video	Displays a dialog box for selecting an export file.  The exported file is then displayed in the <b>Exports</b> .
Alama and an analysis and a	
Alarms menu commands	
Accept Selected Alarms	Sets all selected alarms to the alarm state  Accepted and displays them in the Alarm Image window.
Accept All New Alarms	Sets all new alarms to the alarm state <b>Accepted</b> .
Clear All Accepted Alarms	Sets all accepted alarms to the alarm state  Cleared. The entry is removed from the Alarm List and from the Alarm Image window.
Clear Selected Alarms	Sets all selected alarms to the alarm state  Cleared. The entry is removed from the Alarm List and from the Alarm Image window.
Workflow	Displays the action plan for the selected alarm if available.

Extras menu commands			
A	Add Favorite	Saves the current Image pane pattern as a View in the <b>Favorites Tree</b> .	
N	Mute System	Turns off audio of the available Image panes and the alarm sound.	
C	Options	Displays the <b>Options</b> dialog box.	
С	Default Settings	Restores the settings for monitor layout, user interface and options to the factory default settings.	
L	ast Settings	Restores the settings for monitor layout, user interface and options to the last loaded settings.	
Help n	Help menu commands		
[ C	Display Help	Displays the Bosch VMS Online Help.	
A	About	Displays a dialog box containing information on the installed system, for example the version number.	

## 12.5 Triggering a user event

Main window > Click

You can trigger a user event for a selected Management Server of an Enterprise System that has been configured in Configuration Client.

- ▶ Right-click the desired and click the desired user event command.
- √ The event is triggered.

# 12.6 Reference Image dialog box

Main window > Right-click an Image pane > Reference Image... command Allows you to display and update the Reference image.

#### Camera view:

Displays the live view of the selected camera.

#### Reference image:

Displays the reference image after clicking Update.

#### Update

Click to set the reference image. The image of the time when you click **Update** is used.

## 12.7 Please select a Server

Main window > Tools menu > Find in Logbook... command

This dialog box only appears when you logged on as user of an Enterprise User Group. Allows you to select a Management Server where the Logbook search is performed.

#### **Management Server:**

Select the IP address of the desired Management Server.

#### 12.8 **Select Search Parameters dialog box**

Main window > Tools menu > Find in Logbook... command

Main window > Tools menu > Find in Logbook... command > Please select a Server dialog box > Select a Management Server in an Enterprise System



Allows you to define and save search criteria for finding entries in the Logbook. If you start this dialog box from within the Playback Mode via Tools menu, the time period selected in the **Timeline** is copied into the **Date and Time** fields.

If you start this dialog box via , the cameras of the current Image window are preselected for the search and the Management Server of the camera displayed in the selected Image pane is preselected. If no camera is displayed in the Image window, the first Management Server of the Logical Tree is preselected.

If you select another time zone, the date and time display of the Logbook search results is changed accordingly.

#### **Filter**

Select a filter name with predefined search criteria or type a name for a new filter.

Click to remove the entry selected in the Filter list.

Click to load the search criteria of the selected filter name.

### Save

Click to save the search criteria with the selected filter name.

Click to clear all search criteria of the selected filter name.

### **Date and Time**

Type the date and time to define the period you want to search.

#### **Result Count**

Select an entry in the list to limit the number of matches that result from the search.

### Add Event

Click to display the **Event Selection** dialog box.

#### Remove Event

Click to remove a selected event entry.

#### **Remove All Events**

Click to remove all event entries.

#### ATM / POS

Click to display the **ATM/POS Options** dialog box.

### **Virtual Inputs**

Click to display the Select Virtual Inputs Filter Settings dialog box.

### **Priority:**

Select an alarm priority to search for.

#### Alarm state:

Select an alarm state to search for.

#### **Record only**

Click to select for searching record-only alarms.

#### Force workflow

Click to select for searching force workflow alarms.

#### **Auto-clear**

Click to select for searching auto-clear alarms.

#### **Add Device**

Click to display the **Device Selection** dialog box.

#### **Remove Device**

Click to remove a selected device entry.

#### **Remove All Devices**

Click to remove all device entries.

#### **Details:**

Type a string to search for. Some important events contain strings to better find them. For example, a particular SystemErrorEvent has the string **Server alarm queue capacity reached!**.

You can use \* as a wildcard. For example, enter \*triggered\* to find the string An alarm was triggered by a network failure.\*triggered or triggered\* will not find this string.

#### User:

Type a user name to search for.

#### Search

Click to start the search. The **Logbook Results:** dialog box is displayed.

#### Close

Click to close the dialog box. No search is executed. If you did not save your search criteria with a filter name, they get lost.

## 12.9 ATM/POS Options dialog box

Main window > Tools menu > Find in Logbook... command > Select Search

Parameters dialog box > ATM / POS button

Allows you to select the appropriate ATM/POS search criteria for finding Logbook entries and recorded videos.

#### **ATM Data**

Click to search for ATM data.

#### **POS Data**

Click to search for POS data.

#### ATM number:

Type the number of the device.

#### **Transaction number:**

Type the appropriate transaction number.

#### Bank account:

Type the appropriate account number.

#### Bank routing code:

Type the appropriate bank routing code.

#### **Amount**

Type the appropriate amount of withdrawn money.

#### **POS String:**

Type an appropriate search string.

#### 12.10 **Select Virtual Inputs Filter Settings dialog box**

> Tools menu > Find in Logbook... command > Select Search Main window >

Parameters dialog box > Virtual Inputs button

Allows you to enter search criteria for virtual inputs.

#### 12.11 **Device Selection dialog box**

Main window > Tools menu > Find in Logbook... command > Select Search Parameters dialog box > Add Device button

Allows you to select the appropriate devices for finding Logbook entries and recorded videos.

#### 12.12 **Event Selection dialog box**

Main window > Tools menu > Find in Logbook... command > Select Search Parameters dialog box > Add Event button

Allows you to add events for filtering purposes.

#### 12.13 Logbook Results: dialog box

Main window > Tools menu > Find in Logbook... command > Select Search Parameters dialog box > Search button

Displays the results of a Logbook search. If you select another time zone, the date and time display of the Logbook search results is changed accordingly.

#### **Back to Filter**

Click to display the **Select Search Parameters** dialog box.

#### **Save Results**

Click to display a dialog box for saving a text file with Logbook entries as CSV file.



#### Notice!

When you open such an exported CSV file in Microsoft Excel, it can happen that time related cells do not display seconds.

To change this behavior, change the formatting of these cells from m/d/yyyy h:mm to m/d/ yyyy h:mm:ss

#### 12.14 **Options dialog box**

#### Failover VRM

Select to enable retrieving recordings from the Failover VRM.

Main window > Extras menu > Options... command

Allows you to configure parameters for using Bosch VMS.

#### 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.

### Display the map containing the camera of the selected Image pane

Click to activate that the map of the camera in the selected Image pane is getting the focus.

The map is displayed in the **Map** window of the **Control** monitor. If the selected camera is not configured on any map, the **Map** window is cleared.

The displayed map is the first found map in the Logical Tree beginning from the root item, that contains the selected camera.

If a camera sequence is running within the selected Image pane, after each sequence step the map in the **Map** window is updated accordingly.

#### 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.

#### Audio tab

#### Playback audio of the selected Image pane

Select to activate audio playback for the video in the selected Image pane.

### Multichannel audio playback

Select to enable simultaneous audio playback for all videos displayed in the Image panes.

#### Alarm and event sound volume:

Move the slider to adjust the sound volume of alarm sounds.

### **Half Duplex**

Select to enable half duplex mode for the Intercom functionality.

### Full Duplex

Select to enable full duplex mode for the Intercom functionality.

### Playback tab

Allows you to configure where to get playback information for all cameras that are assigned to an Image pane in Playback Mode. You use this setting when the VRM server is not available.

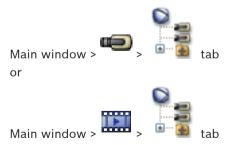
#### Primary VRM (default)

Select to enable retrieving recordings from the primary VRM.

#### Encoder

Select if the VRM server is not available.

# 12.15 Logical Tree window



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

#### 12.16 Search dialog box



tab > Right-click the root node> Click Tree Search



tab > Right-click an item > Click Tree Search

Allows you to find an item in the Logical Tree

#### Search for:

Type a search string representing the display name of an item. Use \* and ? as wildcards.

#### **Previous**

Click to mark the previous item that matches the search string.

#### Next

Click to mark the next item that matches the search string.

#### Find

Click to mark the first item that matches the search string.

#### Close

Click to close the dialog box.

#### 12.17 **Favorites Tree window**



You can save, organize, and delete devices of the Logical Tree and Views on Image panes in the Favorites Tree as required.

The current setting of the digital zoom and the image section are saved.

#### 12.18 **Export Video dialog box**

Main window > Timeline menu > Export Video... command

Allows you to export video data in Bosch VMS Archive Player or ASF format. You can change the time period for the 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 (Bosch VMS Archive Player) or ASF format.

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

Data in ASF format can be played with standard software such as Windows Media Player.

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

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

If exporting video data on a hard drive was not successful, the already exported video data is deleted.

#### 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.

#### **Native format**

Click to select the Bosch VMS Archive Player format.

#### **Export file viewer**

Click to select that a setup for Bosch VMS Archive Player is stored in the location selected under **Data Medium**.

### ASF (Media Player Compatible)

Click to select the ASF format (Windows Media Player compatible). In the list, select an entry for the quality.

#### Disk:

Click **Browse** to select a hard disk partition for exporting.

#### CD/DVD/Blu-Ray:

In the list, select a CD/DVD/Blu-Ray writer for exporting.

#### **Comment:**

Enter a comment for the export.

### Click to get step-by-step instructions:

Exporting video data, page 45

## 12.19 Bookmarks 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.

#### See also

- Editing a bookmark, page 40
- Loading a bookmark, page 40

#### 12.20 Add Bookmark dialog box

> Assign desired cameras to the Image 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 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.

Displays the cameras that belong to this bookmark.

#### See also

Adding a bookmark, page 39

#### 12.21 **Export Bookmark dialog box**

> Right-click a bookmark > Export Bookmark command

> Right-click a bookmark > Export Bookmark command Allows you to export video data of a bookmark in Bosch VMS Archive Player or ASF format. You can change the time period for the 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 (Bosch VMS Archive Player) or ASF format.

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

Data in ASF format can be played with standard software such as Windows Media Player.

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

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

If exporting video data on a hard drive was not successful, the already exported video data is deleted.

#### 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.

#### Fnd

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

#### **Native format**

Click to select the Bosch VMS Archive Player format.

#### **Export file viewer**

Click to select that a setup for Bosch VMS Archive Player is stored in the location selected under **Data Medium**.

### ASF (Media Player Compatible)

Click to select the ASF format (Windows Media Player compatible). In the list, select an entry for the quality.

#### Disk:

Click **Browse** to select a hard disk partition for exporting.

#### CD/DVD/Blu-Ray:

In the list, select a CD/DVD/Blu-Ray writer for exporting.

#### **Comment:**

Enter a comment for the export.

#### Click to get step-by-step instructions:

To export a single bookmark:, page 45

## 12.22 Export Multiple Bookmarks dialog box



#### **Bookmarks**

or



#### **Bookmarks**

Allows you to export video data of multiple bookmarks in Bosch VMS Archive Player or ASF format. This way you can export different time periods of the same or different cameras in one process.

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 (Bosch VMS Archive Player) or ASF format.

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

Data in ASF format can be played with standard software such as Windows Media Player.

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

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

If exporting video data on a hard drive was not successful, the already exported video data is deleted.

#### Name:

Type the name for the exported file.

#### **Native**

Click to select the Bosch VMS Archive Player format.

#### **Include Viewer**

Click to select that a setup for Bosch VMS Archive Player is stored.

### **ASF (Media Player Compatible)**

Click to select the ASF format (Windows Media Player compatible). In the list, select an entry for the quality.

#### **HDD**

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

#### CD/DVD/Blu-Rav

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.

#### Comment:

Enter a comment for the export.

#### Click to get step-by-step instructions:

- To export multiple bookmarks:, page 46

## 12.23 Exports window

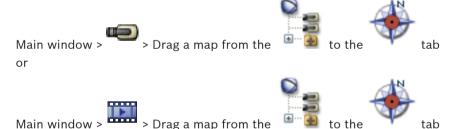


You can import exported video data, display it in an Image pane, search for particular data in it, and unload it again.

### **Related Topics**

- Exporting video data, page 45
- Importing video data, page 46

## 12.24 Map window



Displays a site map, it cannot display video content and is not limited to a 4:3 ratio.

If a map cannot be displayed completely in the **Map** window, you can drag the map. A special cursor is displayed.

### Click to get step-by-step instructions:

- Displaying a map, page 36

## 12.25 Monitor Wall Image window

#### Select layout

Select the desired entry for the layout of the monitor wall. Only n x m layouts are supported. If thumbnails have been configured, in each Image pane you see a static image that is updated regularly.

An Image pane that is connected to a camera displays the name of the camera, IP address and encoder input number, server number and the camera number in a tooltip.

A brown frame around a camera Image pane indicates a static camera image.

A green frame around a camera Image pane indicates a sequence running in this Image pane. An empty Image pane is displayed with blue color.

Status information on the connection to the monitor wall hardware is displayed in the status line in the lower boundary of the monitor wall Image window.

A connection loss between monitor wall and a camera is displayed with —.



#### See also

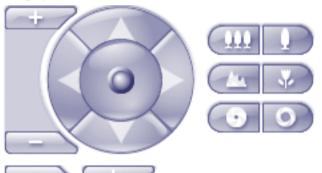
Controlling a monitor wall, page 34

#### 12.26 PTZ Control window



The PTZ Control 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.



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



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

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



Click to set the focus near / focus far.



Click to close the iris / open the iris.

#### **Prepositions:**

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



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

### **AUX Commands:**

Select an entry to execute this command.

#### 12.27 **Monitors window**





#### Notice!

The Monitors tab is not visible if your Operator Client is connected to more than one Management Server.

Displays the available analog monitor groups. This tab is only visible if at least one analog monitor group is configured and the analog monitor group is assigned to this workstation. If the computer is not configured as a workstation, this assignment is not required.

Allows you to switch to the next or to the previous analog monitor group.

Allows you to switch to the previous or next alarm when there are more alarm cameras than available monitors.

#### 12.28 **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.

Allows you to perform the following tasks (not all tasks are available in Bosch VMS Archive Player):

- Setting the number of displayed Image panes.
- Arranging the Image panes with high flexibility, changing the pattern of the Image panes, and saving this arrangement as a View in the Favorites Tree.
- Toggling between Live Mode and Playback Mode (and Alarm Mode if alarms are available)
- Switching on/off all audio sources (application must be configured for multi-channel mode)
- Starting a sequence
- Switching on/off the Image pane toolbars
- Performing instant playback
- Using Intercom functionality

## 12.29 Image pane

Main window

Bosch VMS Archive Player offers only a restricted feature set.

Allows you to display:

- Live video from any video source (Live Mode only)
- Instant playback video
- Recorded video (Playback Mode only)
- Maps
- Documents (HTML files)

A yellow border indicates that this Image pane is selected, for example, for displaying a camera image in this Image pane.

If you log on to an Enterprise Management Server, the camera name in the title of the Image pane is displayed with the name of this camera's Management Server as a prefix.

Cameras in the map are displayed as hot spots. You can activate a camera in the map by double-clicking, context menu, or dragging and dropping to an Image pane.

When a PTZ camera is displayed, you can use in-window control function.

Double-click a camera in the Logical Tree to display it in the next free Image pane.

Right-click in the Image pane and click Properties to display the Properties: window. This window displays information on the camera.

The time display in the tool bar of a live Image pane always shows the local time of the displayed camera. The time display in the tool bar of a playback Image pane always shows the time of the recorded video.

### **Related Topics**

Used icons, page 94

#### 12.30 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.

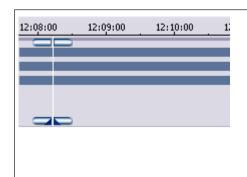
Allows you to navigate through recorded videos. The playback of all displayed Image panes is synchronized.

Many features enable the precise finding of scenes you are searching for.

The Timeline for NVR recordings in Operator Client and Bosch VMS Archive Player displays the following information indicated by a color or hatching:

NVR recording	Color
Continuous recording	Dark gray-blue
Alarm recording	Red
Pre-alarm recording	Light red
Motion recording	Yellow
Pre-event recording	Light yellow
Results of motion search	White
No video signal	Black
No recording	Light gray
Protected data	Diagonal stripes
Audio data available	Thin green line above the Timeline

	Click to zoom in or zoom out the Timeline.
<b>+</b> , <b>=</b>	onek to zoom m or zoom out the rimeime.
<b>←</b> 1/8 1/4 1/2 1 2 4 8 <b>★</b>	Move the slider to adjust the playback speed for the selected cameras.  Changing the playback speed, page 44
KI K ( I D ) N D)	Use the controls to control the playback of the selected cameras.  From left to right:  - Jump to the oldest recording  - Single frame backward no matter what frame type  - Play backward, you can change the playback speed with the speed slider  - Pause play or backward play  - Play, you can change the playback speed with the speed slider  - Single frame forward no matter what frame type  - Jump to the newest recording
10:40:08 3/31/2008	Enter the time for rapid positioning the Hairline in the Timeline.
	Using the Timeline, page 43
	Click to move the Hairline to the time in the time field.  Using the Timeline, page 43
Alarm	Select the desired recording mode where you want to jump to.
	Click to display the <b>Select Search Parameters</b> dialog box.  Finding Logbook entries, page 48
	Click to display the <b>Motion Search</b> dialog box.  Finding motion (only NVR recordings), page 47
	Click to display the <b>Export Video</b> dialog box.  Exporting video data, page 45
Camera 1 (140.10 Camera 1 (140.10.	Displays all cameras displayed in the Image window.  If you log on to an Enterprise Management Server, the camera name is displayed with the name of this camera's Management Server as a prefix.



Displays the Timelines of the cameras in the camera list.

Allows you rapid time positioning for playing the corresponding videos.



Using the Timeline, page 43

Exporting video data, page 45

Finding motion (only NVR recordings), page 47

Finding recorded video data, page 49

Authenticating video data (for NVR recordings only), page 44

Protecting video, page 44

Deleting video data, page 45

#### 12.31 Motion Search dialog box







Main window >

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.

#### Start:

Enter date and time for starting the search for motion. Clear the check box if you want the search start at the very beginning of the recording.

#### End:

Enter date and time for finishing the search for motion. Clear the check box if you want the search stop at the present point in time.

#### Select All

Click to select the whole image.

#### Clear Selection

Click to remove the selection.

#### **Invert Selection**

Click to invert the selection.

#### **Display Grid**

Click to select or clear for displaying a grid for defining the sensitive area where motion search is performed.

#### **Start Search**

Click to start the search. The results are displayed in the Motion Search Results window.

#### 12.32 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.

#### Including:

The current selection of the Hairline is displayed. Change the value if required.

## 12.33 Forensic Search dialog box (only VRM recordings)

Main window > Timeline tab > Select time period with Hairline > Click

Allows you to find video data with selecting a Forensic Search type, for example IVA. 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 IVMD and IVA 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 IVA version that you are using.

#### Search

Click to start the Forensic Search.

# 12.34 Protect Video dialog box

Main window > Timeline menu > Protect Video... command

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 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.

#### **Protect**

Click to protect the selected time period.

## 12.35 Unprotect Video dialog box

Main window > Timeline menu > Unprotect Video... command

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.

### Unprotect

Click to unprotect the selected time period.

## 12.36 Motion Search Results window



Main 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.

## 12.37 Video Search Results window



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.

## 12.38 Alarm List window



Click to accept an alarm.

The alarm is removed from all Alarm Lists and alarm video displays of the other operators.



Click to display a dialog box displaying an action plan. If configured, you can enter a comment.



Click to clear an alarm.

You cannot clear an alarm that has the comment or force workflow attribute before you have displayed the action plan and entered a comment. If the alarm is configured as an auto-clear alarm, the alarm is removed from the Alarm List after the auto-clear time (configured in the Configuration Client).



Click to revoke the acceptance of an alarm.





Click to turn alarm audio on / off.

The latest incoming alarm triggers an alarm sound.



Click to display the Alarm List.

## 12.39 Used icons

The following table lists the icons used in Operator Client. For the icons used in the Timeline see chapter *Timeline window*, page 89.

45	New configuration available. Log off and log on again to accept.
	Root node of the Logical Tree in an Enterprise System. If the node does not have any child nodes, no configuration is available.
	Operator Client is connected to a Management Server.
<b>△</b> ₹	License feature failure
×	Unavailable. For a Management Server: No configuration available
Δ	Disconnected
<u> </u>	Not authorized
<b>(</b>	Live Mode
IDI .	Playback Mode
<b>(</b> 9	Management Server with this overlay icon is located in another time zone.
	Slider to adjust audio volume of all Image panes.

	Audio on / off
<u> </u>	Click to display / hide the toolbar of each Image pane.
	Click to display the Image pane in full-screen mode.
	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.
<b>§ §</b> ⊕	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.
	Root node (user assigned name of the Logical Tree)
	Folder containing various items
<b>*</b>	Folder containing various items and having assigned a map
<b>=</b>	Camera
<u>~</u>	Connection lost
	Recording camera
<b>(10)</b>	Video loss
<b>=</b>	Matrix camera
-	Live only 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)
<b>↔</b>	Relay
	Inputs
o <sup>o</sup>	Command Script
	Document
	Camera sequence
	Camera sequence is interrupted
回	Camera sequence is playing.
<i>p</i>	Digital zoom
<b>∰</b> :	Transcoding enabled.
•	Manual alarm recording
	Instant playback
$\bigstar$	Root node of the Favorites tree

	Click to display the Alarm Image window (only available if alarms are pending).
ő	Click to display Live or Playback Mode again when the Alarm Image window is displayed.

## See also

- Timeline window, page 89

# 13 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.

## 13.1 General controls

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

## 13.2 Playback controls

То	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

# 13.3 Image window controls

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

То	Press
Move selected Image pane	Cursor keys
Close Image pane	Delete,
Close all Image panes	Control + Delete
Show less Image panes	F7
Show more Image panes	F8
Show / hide Image pane bars	F9

#### **Troubleshooting** 14

This chapter contains information on how to handle known problems using Bosch VMS Operator Client Bosch VMS Archive Player.

### Problems with playing recorded videos

### Caution!

Do not attempt to play recorded videos exported with Bosch VMS V.1.1 with Archive Player from Bosch VMS V.1.0. This can result in data loss.

Issue	Cause	Solution	
Archive Player cannot play	Archive Player is from	Update Archive Player to	
recorded videos.	Bosch VMS V.1.0. Recorded	Bosch VMS V.1.1.	
	video data has been exported	See Updating an old Bosch	
	with Bosch VMS V.1.1.	VMS Archive Player version,	
		page 99.	

### Problems with the settings in the recording control of your soundcard

Issue	Cause	Solution
Feedbacks occur when using a microphone for Intercom functionality.	In the recording control of your soundcard the microphone must be selected, not the stereo mix (or something else).  Operator Client checks its configuration file during startup and changes the settings in the recording control accordingly. This configuration file contains a default entry which might not match your system configuration. This setting is restored during each start of Operator Client.	Change the setting in the configuration file of Operator Client to microphone.

### **Crashing Operator Client**

Issue	Cause	Solution
Operator Client crashes.	DiBos Web client is installed and has been started on the computer where Operator	Uninstall the DiBos Web client.
	Client is installed.	

#### 14.1 **Updating an old Bosch VMS Archive Player version**

## To update:

Export video data (see Exporting video data, page 45). In the Export Video dialog box, select Export file viewer and Native format. A setup for installing Bosch VMS Archive Player is stored in the selected location.

## **Glossary**

### **Alarm Image window**

Image window for displaying one or more Alarm Image panes.

#### **Alarm List**

Window in Bosch Video Management System used to display a list of active alarms.

#### **Alarm priority**

Each alarm is assigned a priority. Alarms can be configured to automatically display (pop up) in the Alarm Image window, based on the alarm priority. Each user's live/playback display is also assigned a priority. When alarms are received with priority higher than that of the user's display, the alarm automatically displays its alarm row in the Alarm Image window. If the Alarm Image window is not currently displayed, it automatically replaces the Live or Playback Image window on the alarm-enabled monitor.

#### **Analog monitor group**

A set of analog monitors connected to decoders. The analog monitor group can be used for alarm processing in a given physical area. For example, an installation with three physically separated control rooms might have three monitor groups. The monitors in an analog monitor group are logically configured into rows and columns and can be set to full-screen or quad view.

### **ATM**

Automatic Teller Machine

#### 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.

#### **BVIP**

Bosch Video over IP. Name of a growing family of video products, cameras, encoders and decoders that communicate via IP (Internet Protocol).

#### 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.

#### **DNS**

Domain Name System. A DNS server converts a URL (www.myDevice.com, for example) into an IP address on networks that use the TCP/IP protocol.

#### **Dual authorization**

Security policy that requires two different users to log on to the Operator Client. Both the users must be member of a normal Bosch Video Management System user group. This user group (or these user groups if the users are members of different user groups) must be part of a dual authorization group. A dual authorization group has its own access rights within Bosch Video Management System. This dual authorization group should have more access rights than the normal user group that the user belongs to. Example: User A is member of a user group called Group A. User B is member of Group B. Additionally a dual authorization group is configured with Group A and Group B as members. For the users of Group A, dual authorization is optional, for users of Group B it is mandatory. When user A logs on, a second dialog box for confirming the logon is displayed. In this dialog box, a second user can log on if he is available. If not, user A can continue and start the Operator Client. He then has only the access rights of Group A. When user B logs on, again a second dialog box for logging on is displayed. In this dialog box, a second user must log on. If not, user B cannot start the Operator Client.

## **Duplex**

Term used to define the direction of data transmission between two parties. Half-duplex allows data transmission in both directions but not simultaneously. Full-duplex allows simultaneous data transmission.

### **Dwell time**

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

#### **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 Access**

Consists of one or more Enterprise Accounts. Each Enterprise Account contains device permissions to devices of a particular Management Server.

#### **Enterprise Account**

Authorization that enables an 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 Management Server**

Bosch VMS Management Server hosting the configuration of Enterprise User groups. You need one or more Enterprise User groups referring to one or more servers computers. The roles of Enterprise Management Server and Management Server can be combined in one configuration.

### **Enterprise System**

Feature of Bosch Video Management System that allows a user of Operator Client to access multiple Management Server computers simultaneously.

#### **Enterprise System**

Feature of Bosch Video Management System that allows a user of Operator Client to access multiple Management Server computers simultaneously.

## **Enterprise User Group**

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

#### **Event**

A circumstance or state that is linked to an alarm and/or an action. Events can arise from many sources such as cameras, archivers, directories, digital inputs, etc. They can include startrecording states, loss of signal states, disk full messages, user logons, digital input triggers, etc.

#### Hot spot

Mouse sensitive icon in map that is configured in Configuration Client. Hot spots are cameras, relays, Command Scripts. The user uses it for localizing and selecting a device in a building.

#### 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.

### Intercom functionality

Used to talk on the loudspeakers of an encoder. This encoder must have audio-in and audio-out. The Intercom functionality can be granted per user group.

## IVA

Intelligent Video Analysis. 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 IVA settings activated is a precondition to be able to selectively and quickly search through video material later. IVA makes it possible to capture and evaluate directional movement of objects in such a way that false alarms are prevented to a large extent. IVA 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, IVA allows for filtering moving objects by their color specifications. With the aid

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

#### **IVMD**

Intelligent Video Motion Detection. Software algorithm that detects moving objects within an environment monitored by a video camera and generates alarm events that can be processed further in Bosch Video Management System. IVMD makes it possible to capture and evaluate directional motion of objects, thereby largely preventing false alarms. IVMD adapts automatically to changing environmental conditions and is therefore non-sensitive to perturbing influences such as rain and moving plants.

#### Logbook

Container for logging all events in Bosch Video Management System.

#### 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**

Bosch VMS server managing devices.

#### Metadata

Data of a POS or ATM like date and time or bank account number stored with the corresponding video data to provide additional information for evaluation.

### No-touch deployment

Method for automatic downloading, installing and running .NET applications without changing the registry or shared system components. With Bosch Video Management System, no-touch deployment is used for updating the Operator Clients from the Management Server. The update takes place if a new version is stored on the Management Server and when each user is

logging on to the Operator Client. If you work with one Operator Client against multiple Management Server computers, no-touch deployment uses only the software version stored on the Management Server the Operator Client has last logged on successfully. When you try to log on to another Management Server with a different application version, this one displays the Management Server as not online because the software versions do not match.

#### NVR

Bosch Network Video Recorder; computer in the Bosch Video Management System storing audio and video data, acting as Failover NVR, or as Redundant NVR. This NVR is different from the VIDOS NVR which can be integrated in Bosch Video Management System.

#### **Operator Client**

Component of Bosch Video Management System that provides the user interface for system monitoring and operation.

#### **Playback Mode**

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

### POS

Point of sale.

## PTZ camera

Camera with pan, tilt, and zoom function.

## Reference image

A reference image is continuously compared with the current video image. If the current video image in the marked areas differs from the reference image, an alarm is triggered. This allows you to detect tampering that would otherwise not be detected, for example if the camera is turned.

### **Rewind time**

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

## Server Lookup

Access method for a user of Configuration Client or Operator Client to sequentially connect to multiple system access points. A system access point can be a Management Server or an Enterprise Management Server.

#### Site

User-created entity for grouping related system resources together for ease of viewing and management. Typically, a site corresponds to a physical location, like a building or a floor, but it

may be used to represent any concept. It consists of a Management Server, usually Configuration Client and multipe Operator Client installations.

#### **TCP**

Transmission Control Protocol. Connectionoriented communication protocol used to transmit data over an IP network. Offers a reliable and ordered data transmission.

### **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.

### 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.

# Index

A	C		
accept new configuration, 24	cameo, 26, 27, 31, 88		
accessing the Help, 7	cameo space, 87		
add bookmark, 39	camera round, 28		
alarm camera	camera sequence, 28		
analog monitor, 50	automatic, 28		
Alarm Images window, 27	pre-configured, 28		
alarm map, 36	CCTV keyboard, 54		
alarm recording, 27	change password, 24		
NVR recordings, 27	color, 89		
VRM recordings, 27	Command Mode, 61		
alarm sequence, 70	connection issues, 35		
analog monitor group, 10, 66, 69, 73	crash		
application windows, 64	Operator Client, 99		
audio, 29, 32	D		
Audio Intercom functionality, 32, 80	data sheet, 11		
authenticity, 89			
automatic alarm popup behavior, 21	decline new configuration, 24		
automatic display of alarms, 21	decoupled, 23		
automatic pop-up alarm, 64	delete user, 24		
automatic sequence, 28	delete video, 89		
В	digital room, 20, 28		
	digital zoom, 30, 38		
bank routing code, 78	disconnected, 23		
bank sort code, 78 bookmark, 38	displaying		
	screens, 25		
add, 39	dome camera , 36 DWF files		
display, 40			
edit, 38, 40, 82, 83	initial view, 36		
load, 40	E		
save, 39	edit bookmark, 40		
bookmark:export, 40, 41, 45, 46 Bosch IntuiKey keyboard	Enterprise System, 14		
analog mode, 62	entire screen, 31		
9	exit		
Command Mode, 61	Operator Client, 23		
digital mode, 58	export		
icons, 61	video, 45, 81, 83, 84, 89		
Bosch Video Management System Online Help, 7	export:bookmark, 40, 41, 45, 46		
• •	F		
Bosch VMS Archive Player, 45, 81, 83, 84, 99	Favorite, 38		
	finding		
	•		
	information in the Help , 7 Logbook entries, 48, 49, 76, 77		
	Forensic Search, 47		
	full-screen mode, 31		
	run-screen moue, st		

G	N		
general settings, 79	new configuration available, 24		
Н	NVR, 11		
	NVR recordings		
Hairline, 89	alarm recording, 27		
HD camera, 80	Ο		
help, 7, 8	•		
help, 7	offline, 23, 24		
HTML files, 87	online application Help, 7		
I	Operator Client		
icons, 94	quit, 23		
Bosch IntuiKey keyboard, 61	start, 23		
Image pane, 26, 27, 31, 88	options, 79		
in-window PTZ, 36	Р		
image section, 30, 38	password change, 24		
Images window, 87	playback, 67		
import	playback control		
video data, 47	jump to latest recording, 90		
initial view	jump to oldest recording, 90		
DWF files, 36	pause, 90		
instant playback, 30, 31	play, 90		
instant replay, 31	play backward, 90		
Intercom functionality, 32	single frame backward, 90		
IntuiKey keyboard, 54	single frame forward, 90		
in-window PTZ, 36, 89	Playback Mode, 67		
	playback video, 87		
K	point in time, 89		
KBD Universal XF keyboard, 54	pre-configured sequence, 28		
L	printing the Help, 8		
Live Mode, 64, 85	protect video, 89		
live video, 64, 87	PTZ blocking, 34		
load	PTZ camera , 36		
video data, 47	PTZ control, 86		
Logbook, 48, 49, 76, 77	blocking, 34		
logbook, 79	push-to-talk, 32		
Logical Tree	_		
search, 26	Q		
	quit		
M	Operator Client, 23		
Management Server, 11, 14, 23	R		
manual recording, 27	recording quality, 27		
map, 87	reference image, 34, 76		
metadata, 32, 49	refuse new configuration, 24		
motion search, 47	Release Notes, 11		
multichannel, 29	remove user, 24		
	resize, 27		
	,		

## S

save bookmark, 39 search Logical Tree, 26 search for motion, 47, 89 searching for Logbook entries, 48, 49, 76, 77 sequence, 28 shortcuts, 98 single frame backward, 90 forward, 90 smart motion search, 47, 89 sound, 64, 67 specific event, 89 start Operator Client, 23 storage failure, 80 system access, 13 system requirements, 11 system structures, 12 T

TCP, 35 time zone, 9, 25, 42, 65, 72, 77, 79, 89 Timeline, 67, 89 toggle, 27 toolbar, 31 transcoded video, 35, 49

## U

update reference image, 34 used icons, 94 user delete, 24 remove, 24 video export, 45, 81, 83, 84 video data import, 47 load, 47

View, 38

view camera, 26

viewing

screens, 25

virtual input, 79

VRM failure, 80

VRM recordings

alarm recording, 27

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