

Monitor Wall 10

MVS-MW-2D | MVS-MW-4D



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1 Introduction

This manual informs about installation, configuration, and operation of the Monitor Wall software.

1.1 About this manual

This manual is intended for persons setting up the Monitor Wall software. The manual describes the setup and initial commissioning of the software.

This manual assumes that the reader is familiar with the video management system in use.

1.2 Conventions in this manual

The symbols and notations that follow are used to draw attention to special situations:



Notice!

This symbol indicates special features and provides tips and information for easier, more convenient use of the software.

Terms that you can find in the program, such as menu options, commands or text in the user interface, are written in **bold**.

1.3 Additional documentation

More information

For more information, software downloads, and documentation, go to www.boschsecurity.com and the corresponding product page.

2 System overview

Using the Monitor Wall software is only possible together with a video management system installed on a separate PC. The Monitor Wall software is installed on an own PC with a network connection to the video management system.

The video management system and the Configuration Manager program are used to configure the Monitor Wall software.

2.1 System components

A system containing the Monitor Wall consists of the components that follow:

- Monitor Wall software
The Monitor Wall software is an easy-to-use additional software for a video management system that must be installed on a separate PC. With the Monitor Wall software started, this PC is turned into a multi-channel video processing decoder reproducing video data on the connected digital monitors. The processor power of the PC is used for decoding the video streams that are displayed on the connected monitors. Therefore, in this manual the PC is named decoder. The decoder is integrated into the video management system as any other hardware decoder.
- Video management system or client
The video management system or client is used to control the system, for example, to change the number and arrangement of the image panes displayed on the connected monitors.
- Operating devices
With the appropriate system configuration, the user can perform various actions, for example, establishing connections, controlling cameras or starting instant playback, using a mouse and PC keyboard, IntuiKey keyboard, or KBD-Universal XF keyboard for operation purposes.



1	Monitor Wall software	2	Client or video management system
3	KBD-Universal XF, IntuiKey or a mouse and PC keyboard		

2.2 Features

- Monitor Wall 10.0 supports multiple monitors with separately configurable layouts.
- Reconnects the last devices.
Active camera connections are stored and automatically reconnected after restart. To avoid deadlock in case of an overload situation, the automatic reconnect will be deactivated after a certain number of unsuccessful startup attempts.
- Supports TCP and UDP connections.
- Allows to configure the discovery port.
- Allows to configure the cameo distance.
- Supports audio for the first cameo on the first monitor.
- Supports the RCP+ commands `CONNECT_URL` and `CONNECT_PRIMITIVE`.
- Allows to configure the number of decoders to match licensing in management systems.
The number of allowed decoders per monitor is calculated as follows: number of decoders divided by the number of monitors
The layout selection will be restricted to those with number of cameos not exceeding the number of allowed decoders per monitor by 20%.
- A video stretch mode allows using the full cameo space when accepting distortion.
- Supports resolutions up to 12 MP, but may fall back to I-frame-only display mode if the system runs into performance issues.
- Cameo 1:1 selection added to allow 3x2 layout on a 16:9 or 16:10 monitor.

3 Installation

3.1 Requirements

This chapter describes the minimum requirements for installation and operation of the Monitor Wall software and the steps to start and exit it.

Specifications for recommended configuration

- Intel Core i5, 3.0 GHz
- 8 GB RAM
- 1 Gbps Ethernet
- Graphic card: NVIDIA Quadro RTX 4000 (PCI Express)

Supported platforms

- Windows 10 (64 bit), .Net framework 4.7.1 required

All Microsoft updates and hotfixes are expected to be installed on target PCs.

Supported graphic cards

- NVIDIA
NVIDIA Quadro products are typically supported. Hardware acceleration support for decoding is available, for example, in P-series and RTX-series.
- Onboard graphics
 - Typically supported, starting with first generation of the Intel Core i-series. Hardware acceleration support for decoding is supported and starts with 5th generation.

Additional graphics cards may be qualified and supported by the Video SDK.

The higher the resolution displayed, the higher the bit rate of the video stream and the number of monitor windows, the higher is the required computing power of the PC on which the Monitor Wall software is installed. Make sure that the the latest version of the graphic card driver is installed.

Software requirements

- DirectX 11

For configuration purposes:

- Configuration Manager 7.20 or later

For operation purposes:

- Bosch Video Management System 8 or later
- For 3rd party software integration: check with your IPP

3.2 Installing the software

Install the Monitor Wall software on a separate PC and make sure that no other software associated with the video management system is installed on this PC.

To install the Monitor Wall software.

1. Download the latest version of the Monitor Wall software.
To do this, go to <http://www.boschsecurity.com> and download the software from the corresponding product page.
2. Install the software on the PC connected to the computer on which a video management system is installed.



After the installation is finished, the Monitor Wall  icon is displayed on the desktop.

Note:

The Monitor Wall software is installed as a demo version for immediate use. To use the full version permanently without the text overlay that the license is missing, you must buy a license.

To open the Monitor Wall software:



- ▶ Double click the Monitor Wall **Monitor Wall** icon- The PC is now acting as a multi-channel decoder and can be integrated and configured using the video management system.



Notice!

To make sure that the Monitor Wall software starts automatically after any restart of the PC, add the software to the Windows Autorun process.

3.3 Closing the software

To close the Monitor Wall software

- ▶ Press the Esc key on the keyboard of the PC on which the Monitor Wall software is open.

3.4 Licensing

To license the Monitor Wall software, do the steps that follow:

- Request an authorization number by purchasing a license.
- Get the installation code displayed in the Configuration Manager program.
- Request an activation key.
- **Note:** For this, you need the authorization number and the installation code.
- Activate the license using the Configuration Manager program.



Notice!

If you activate the license within the trial period, all settings of the demo version remain valid for the licensed software.

3.4.1 Request an authorization number

Purchase a license for each PC on which you install the software. As confirmation you will receive 1 authorization number for each license by e-mail.

The authorization number is needed to request the activation keys.

3.4.2 Getting the installation code

In addition to the authorization number, you need the installation code to request the activation keys.

To get the installation code:



1. Open the Monitor Wall software by double-clicking the Monitor Wall **Monitor Wall** icon on the desktop.
2. Open the Configuration Manager program.



3. Click the **Network Scan** **Network Scan** tab.

Note: The Configuration Manager program scans the network for compatible devices and the Monitor Wall software appears in the tree structure like a decoder.

4. In the **Network Scan** tree structure, click the Monitor Wall software.

5. Click the **Service** tab, and then click the **Licenses** tab.
The **Licenses** pane appears.
6. Note or copy the installation code displayed in the **Installation code** box.

3.4.3 Requesting the activation key

To activate the software you need the activation keys.

To request the activation keys

1. From any PC, go to: <https://activation.boschsecurity.com/>
The Bosch Security Systems Software License Manager Welcome page appears.
2. If you already have an account, enter your e-mail address and password.
The License Activation page appears.
Note:
If you have no account, create a new account by clicking the respective link.
or
Click the link where you can continue without logging in.
3. Enter the authorization number, then click the check mark to the right.
4. Enter the installation code along with brief information about the installation location.
You can also add a comment. This information can help you later in assigning the activation key.
5. Click **Submit** .
You get 1 activation key. Use this key to activate the software.
6. You can also get the key e-mailed to you. To do this, click the **Email Activation Key** link.

3.4.4 Activating the license

Use the activation key to activate the license.

To activate the license:

1. Open the Configuration Manager program.
2. Click the **Network Scan**  tab.
3. In the **Network Scan** tree structure, click the Monitor Wall software.
4. Click the **Service** tab, and then click the **Licenses** tab.
The **Licenses** pane is displayed.
5. In the **Activation key** box, enter the activation key.
6. Click the **Save** icon.
The Monitor Wall software is now licensed.

4 Configuration

This chapter is intended for the administrator of the video management system. The setup process depends on the video management system in use. Refer to the corresponding documentation for details.

4.1 Setting up Monitor Wall using Configuration Manager program

In the Configuration Manager program, the Monitor Wall is detected in the same way as other hardware, for example, a decoder. Various information and further configuration options are available.

The following sections of this chapter describe the configuration pages of the Monitor Wall found in the Configuration Manager program.



Notice!

To make changes effective, click the **Save** icon.

4.1.1

Unit Access tab

Identification group

Assign a unique name and ID for the decoder in order to make administering of multiple units easier in larger installations.

Password group

Enter the passwords for the service and user account. Otherwise, all further configuration steps will fail.

The decoder works with two password levels:

- The **service** level is the highest level of authorization. This level allows users access to all functions of the decoder and to change all configuration settings.
- The **user** level allows users to make and break connections or switch layouts, but does not provide access to configuration.

Device access group

This group controls access from the Configuration Manager to the decoder. Here, you can configure settings to specify which protocol and which HTTP port are used for communication between the Configuration Manager and the decoder.

If the decoder is password-protected, enter the correct user name and password here.

Version information group

This group shows the hardware and firmware versions, and the serial number of the decoder.

4.1.2

Advanced tab

Video windows group

This group allows you to configure the default display of the cameos. Cameos are the viewlets which show the video stream in your video management system.



Notice!

The settings in this area apply to all cameos. You cannot configure settings here for individual cameos.

Ignore video aspect ratio

With this parameter you define the handling if the cameo and the video stream aspect ratio are not matching. Choose **Off** to display the original video stream aspect ratio; unused cameo space is blackened. Choose **On** to use the complete cameo; overhanging video is cut off.

Aspect ratio

Select the default aspect ratio for cameos. Choose the ratio that is appropriate for most of your video sources.

Metadata

Define if you want to display metadata overlays in the video. Metadata overlays will only be shown if provided with the connected video stream.

Video smoothing

Due to network jitter decoded videos might be jerky. You can improve the smoothness with the disadvantage that the video display is delayed. The higher the selected value, the smoother the video but the greater the time delay. Select **0** (zero) to disable video smoothing.

Distance between cameos

Set your preferred distance between the cameos.

Reconnect on restart

If you enable this parameter, the previous session is restored anytime you restart the decoder. If **Reconnect on restart** is disabled, connections must be manually re-established after restarting the decoder.

Number of decoders

Define the maximum number of cameos limiting the number of possible connections, for example to match the licensed channels of your video management system.

Destination group

Set the password to restrict connections between decoders and video sources. Only video sources which have that password entered as **Destination password**, can setup a connection to the decoder.

The password can be used as a general password. For more information, refer to the documentation of the respective video sources.

4.1.3**Licenses tab****Installation code**

Use this installation code to request the activation keys necessary for licensing.

Activation key

Enter the activation key here.

Installed licenses

Displays a list of all installed licenses.

To uninstall a license:

1. In the **Activation key** box, enter the authorization number of the license.
2. Click the **Save** icon to confirm.

4.2**Integrating Monitor Wall into the video system**

In order to integrate the Monitor Wall software into a video management system which only operates the software like a decoder, use the Configuration Manager program to make the relevant settings.

To integrate the Monitor Wall software:

1. Turn on the PC, then open the Monitor Wall software.
2. Open the Configuration Manager program on a separate PC.

3. On the navigation bar, click the **Network Scan**  tab.
Note: The Configuration Manager program scans the network for compatible devices and the Monitor Wall software appears in the tree structure like a decoder.
4. Select the Monitor Wall software.
5. Click the **General** tab, then click the **Unit Access** tab.
6. In the **Add to System** group, click the **Target group** icon  if necessary.
The **Set target group** dialog box appears.
7. Enter the name of the group or select the name from the list if you want to assign the Monitor Wall software to a group.
Note: You can also continue without selecting or creating a group.
8. In the **Add To System** group, click **Add to system**.
The Monitor Wall software is added to the system.
9. Click the **My Devices**  tab.
The Monitor Wall software appears in the **My Devices** tree structure.

5 Operation

The Monitor Wall software offers no user interface front end and is fully controlled by a remote video management system.

The video management system is used to change the number and arrangement of the cameos displayed with this software on the connected monitors. With the appropriate system configuration, the user can perform various actions, like establishing connections, controlling cameras or starting instant playback.

For information on how to operate your video management system and peripherals like cameras or a control panel, refer to the corresponding documentation.



Bosch Security Systems B.V.

Torenallee 49
5617 BA Eindhoven
Netherlands

www.boschsecurity.com

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