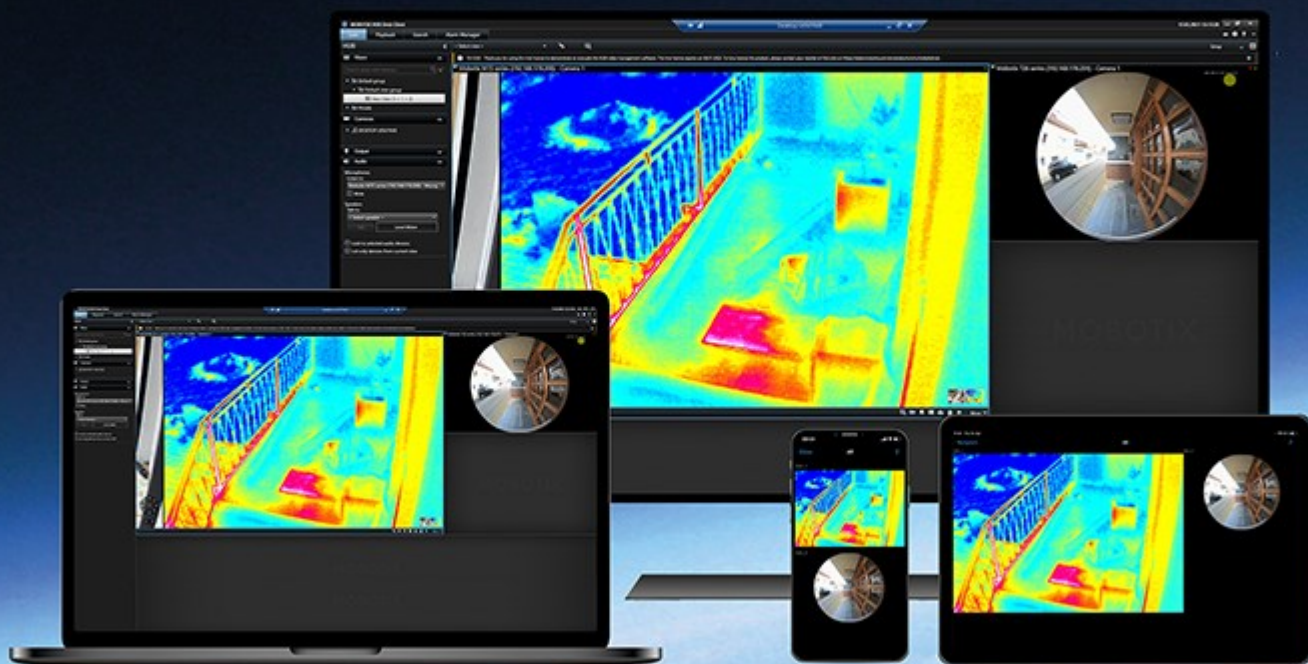


Manual

MOBOTIX HUB Video Wall 2022 R3

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Contents

Copyright 4

Overview 5

 MOBOTIX HUB Video Wall (explained) 5

 Terminology related to Video Wall 6

 Get started 10

Licensing 11

 MOBOTIX HUB Video Wall licensing 11

Requirements and considerations 12

 MOBOTIX HUB Video Wall and MOBOTIX Federated Architecture 12

 Scenarios of how to configure your video wall 12

 Example 1 - video wall with six physical monitors in a single-site setup 13

 Example 2 - video wall with sixteen physical monitors in a multi-site setup 14

Configuration 16

 Configuring MOBOTIX HUB Video Wall 16

 Create Video Wall definitions 17

 Add Video Wall monitors 17

 Position Video Wall monitors 19

 Create presets for your Video Wall definition 21

 Define view layout and add cameras 22

 Activate presets for your Video Wall definition 24

 Specify user permissions for MOBOTIX HUB Video Wall 25

 User permissions for Video Wall (explained) 27

 User permissions that apply to all Video Wall definitions 27

 User permissions that apply to specific Video Wall definitions 29

 Create rules with Video Wall presets 31

 Blank screen monitoring (explained) 31

 Test your Video Wall configuration 32

 Setting up MOBOTIX HUB Video Wall in MOBOTIX HUB Desk Client 33

 Add Video Wall controls to views 33

 Change view layout of Video Wall monitors 34

 Reset or change Video Wall presets 36

User interface details	36
Video Wall (Client node)	36
Video Wall properties	36
Monitor properties	38
Video Wall check box (Client node > Management Client Profiles)	40
Actions and stop actions (Manage Rule wizard)	40
Overall Security tab (Security node > Roles)	41
Video Wall tab (Security node > Roles)	42
Operation	43
MOBOTIX HUB Video Wall (usage)	43
View Video Wall content	43
Video Wall control (explained)	44
Video Wall display options	45
Disconnect Video Wall monitors	45
Displaying content on video walls	46
What can you display?	46
Display or change cameras on video walls	47
Add entire views to video walls	49
Display text on video walls	50
Display alarms on video walls	51
Display bookmarks on video walls	51
MOBOTIX HUB Video Wall and smart map (explained)	53
Drag cameras from maps or smart maps to video walls	53
Stop displaying content on the video wall	54
Reset Video Wall monitor after removing content	55
Troubleshooting	56
MOBOTIX HUB Video Wall (troubleshooting)	56

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Overview

MOBOTIX HUB Video Wall (explained)

MOBOTIX HUB Video Wall is an advanced add-on tool that enables organizations to create video walls that meet their specific security demands. MOBOTIX HUB Video Wall provides an overview of all the video data in the MOBOTIX HUB VMS¹ system and supports any amount or combination of monitors.



MOBOTIX HUB Video Wall allows operators to view static video walls as defined by their system administrator with a fixed set of cameras and monitor layout. However, the video wall is also operator-driven in the sense that operators can control what is being displayed. This includes:

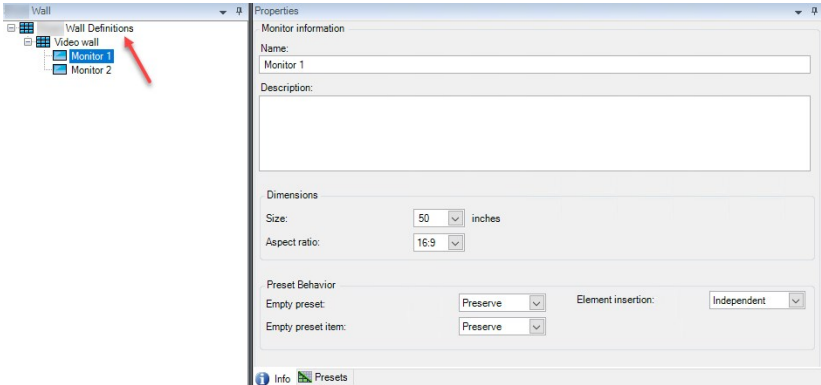
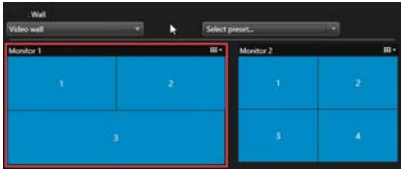
- Pushing cameras and other types of content to the video wall, for example images, text, alarms, and smart map
- Sending entire views to the monitors
- In the course of certain events, applying alternate [presets](#)²

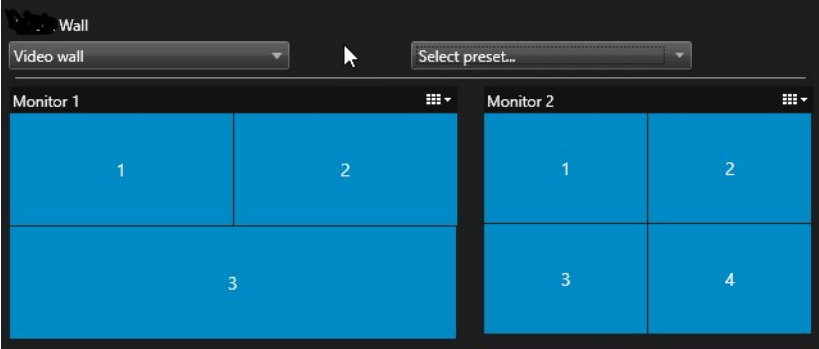
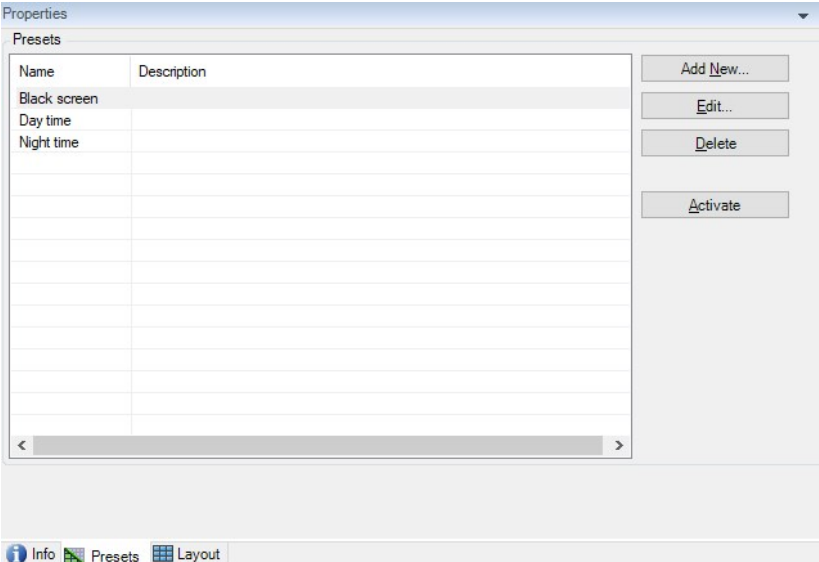
¹Short for "Video Management Software".

²A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

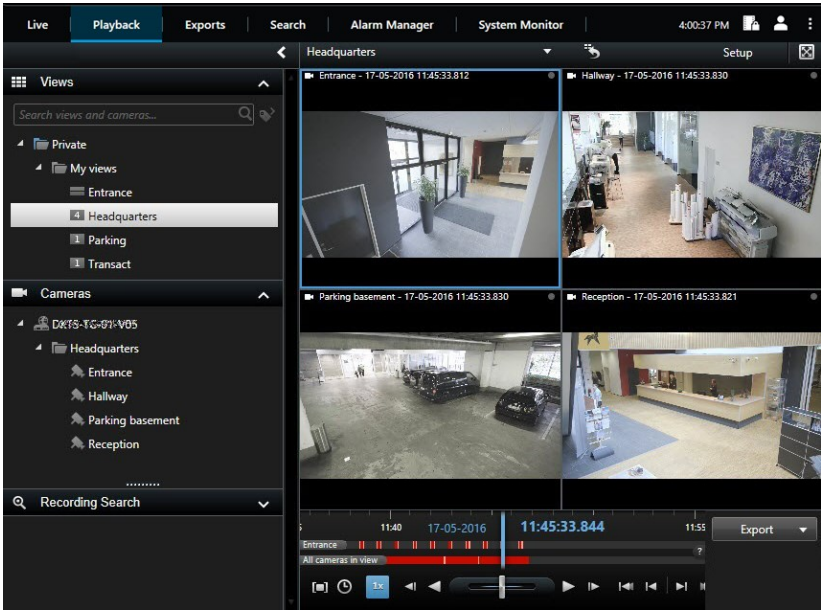
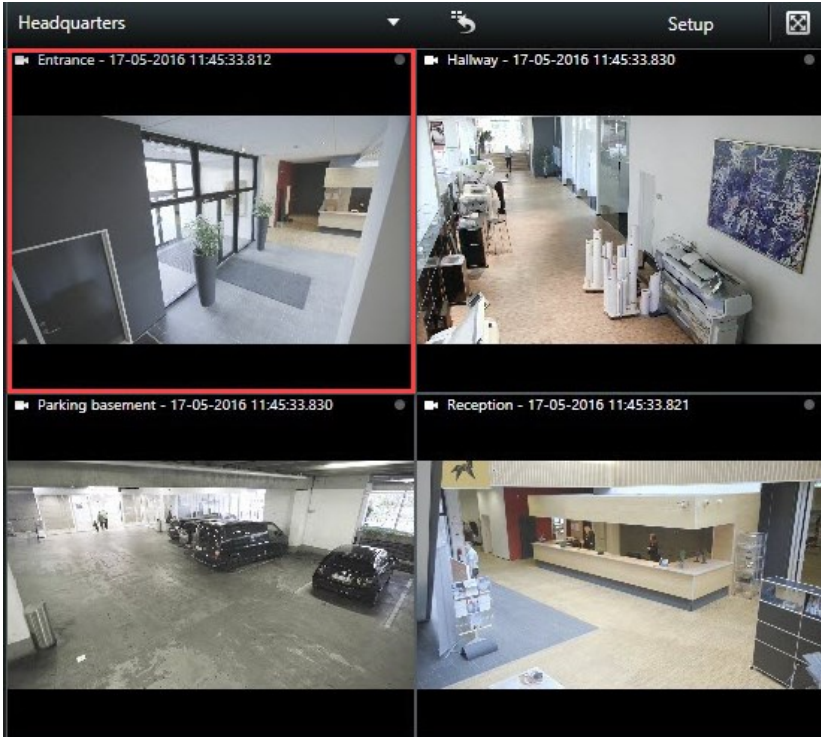
Finally, display changes can be controlled by rules that automatically change the presets based on specific events or time schedules.

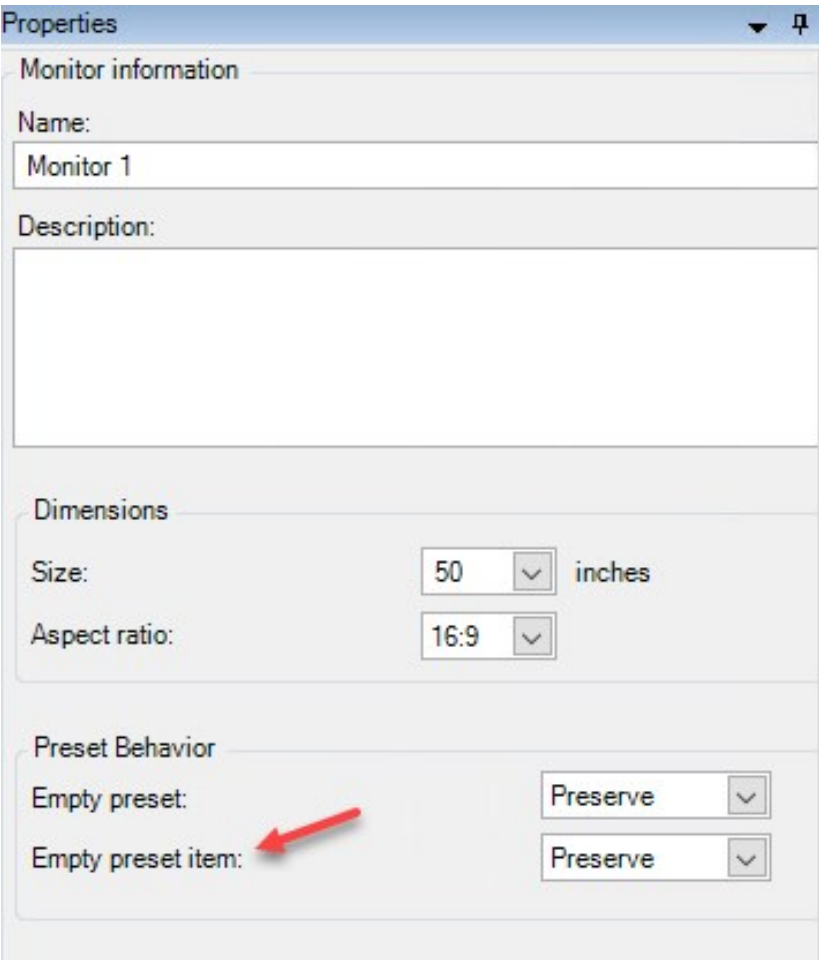
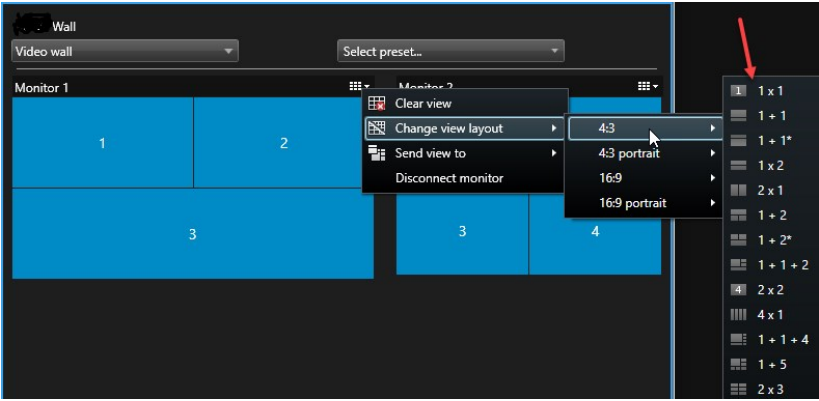
Terminology related to Video Wall

Term	Meaning
Video Wall definition	The configuration of a video wall in MOBOTIX HUB Management Client, including the setup of Video Wall monitors and presets. 
Video Wall monitor	The virtual representation of a physical monitor. In most cases, we need to distinguish between physical monitors and Video Wall monitors.  The image shows the Video Wall control in MOBOTIX HUB Desk Client.
Video Wall control	The virtual representation of a video wall that allows operators to push content onto the video wall.

Term	Meaning
	
Preset	A predefined layout for one or more Video Wall monitors. Presets determine which cameras are displayed, and how content is laid out on each monitor on the video wall.   If you come across the term "preset" in the context of PTZ cameras, then it has a different meaning and refers to the concept PTZ preset¹.
View	A grouping of cameras or other elements, for example webpages, that allows operators to view video from related cameras and other types of content.

¹Can be used for making the PTZ camera automatically go to particular preset positions when particular events occur, and for specifying PTZ patrolling profiles.

Term	Meaning
	
View item	A position within a view that typically holds a camera. 

Term	Meaning
Preset item	A view item where its default content depends on the configuration of the underlying preset. 
View layout	The layout of a Video Wall monitor that defines how to arrange the view items, for example 2x3 or 1+2. 

Get started

Before you can start using MOBOTIX HUB Video Wall, you need to:

1. Get and activate a base license for MOBOTIX HUB Video Wall. See also [MOBOTIX HUB Video Wall licensing on page 11](#).
2. Configure MOBOTIX HUB Video Wall and set the user rights in MOBOTIX HUB Management Client. See also [Configuring MOBOTIX HUB Video Wall on page 16](#) and [Specify user permissions for MOBOTIX HUB Video Wall on page 25](#).
3. Optionally, you can make the [Video Wall control](#)¹ available to operators in MOBOTIX HUB Desk Client. See also [Setting up MOBOTIX HUB Video Wall in MOBOTIX HUB Desk Client on page 33](#).

¹A graphical representation of a video wall that allows you to control what is displayed on the different monitors.

Licensing

MOBOTIX HUB Video Wall licensing

MOBOTIX HUB Video Wall requires the following video wall-related licenses:

- A **base license** for MOBOTIX HUB Video Wall that covers an unrestricted number of monitors displaying video on a video wall

Use of MOBOTIX HUB Video Wall is only supported in these products:

- MOBOTIX HUB L5 - a base license for MOBOTIX HUB Video Wall is included in the base license
- MOBOTIX HUB L4 - purchase a base license for MOBOTIX HUB Video Wall separately

Requirements and considerations

MOBOTIX HUB Video Wall and MOBOTIX Federated Architecture

If the central site uses MOBOTIX HUB Video Wall, you can also use the MOBOTIX HUB Video Wall features in the federated site hierarchy.

See also the manual for MOBOTIX HUB Video Wall.

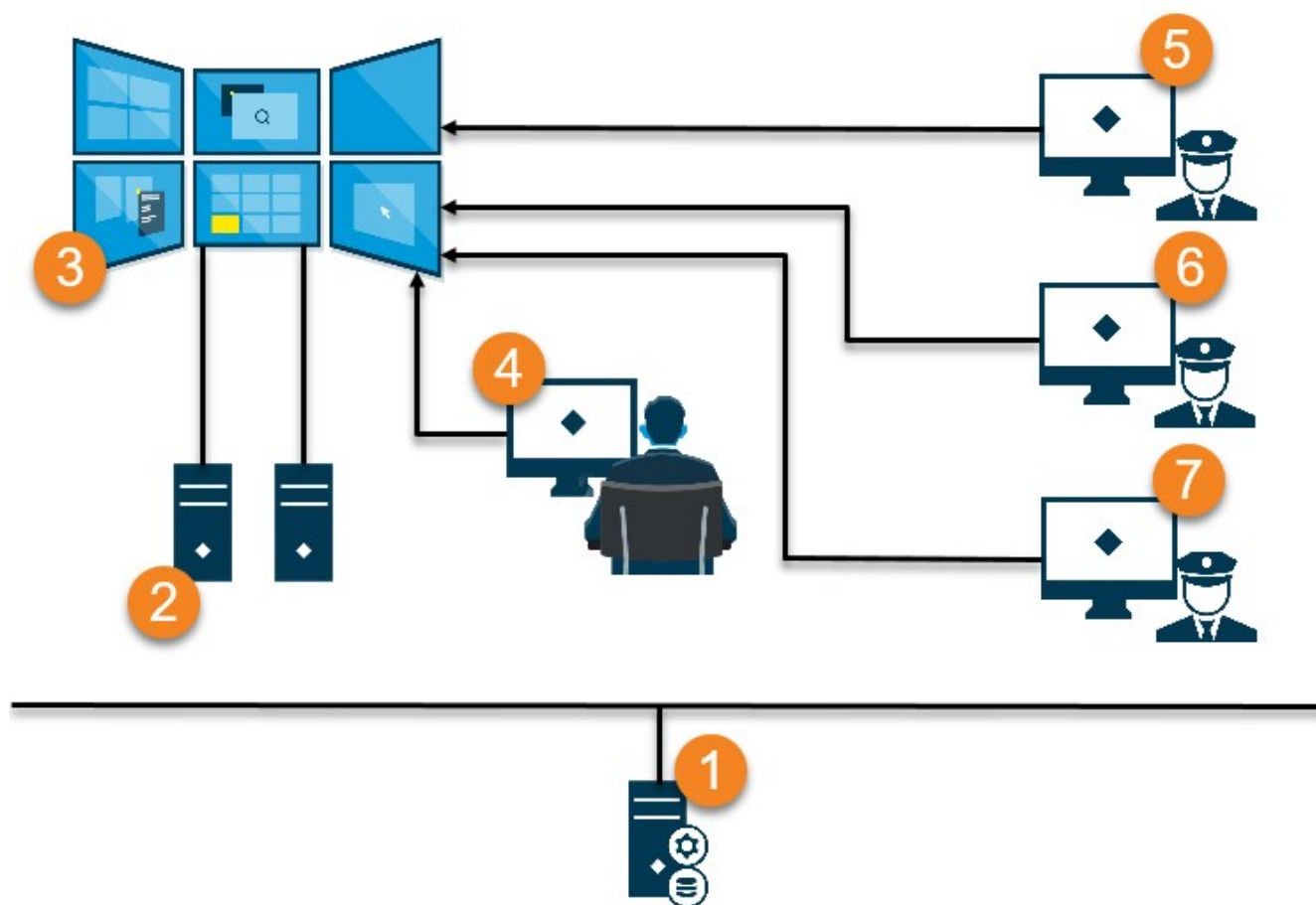
Scenarios of how to configure your video wall

There is no right or wrong way of setting up your video wall. It depends on your surveillance needs and the setup of your MOBOTIX HUB VMS system.

Here are two examples of how you could set up your video wall:

1. Example 1: A single-site MOBOTIX HUB VMS system with a video wall consisting of six physical monitors.
2. Example 2: A two-site MOBOTIX HUB VMS system with a relatively large video wall consisting of sixteen physical monitors.

Example 1 - video wall with six physical monitors in a single-site setup



Explanation of the illustration:

1. The MOBOTIX HUB VMS server (the Management Server) that operators and system administrators connect to when they log in to MOBOTIX HUB Desk Client or MOBOTIX HUB Management Client.
2. Two unattended computers with MOBOTIX HUB Desk Client installed which are dedicated to driving the video wall. Six physical monitors are connected to these computers.
3. The video wall and its physical monitors.

Requirements and considerations

4. In this example, the control room operator has the overall control of the video wall and decides what to display. They use their own computer to control what happens on the video wall by:
 - Opening the Video Wall monitors on their own displays or monitors. Whatever action the operator takes, it is mirrored on the video wall, for example, playing back recorded video
 - Using the Video Wall control

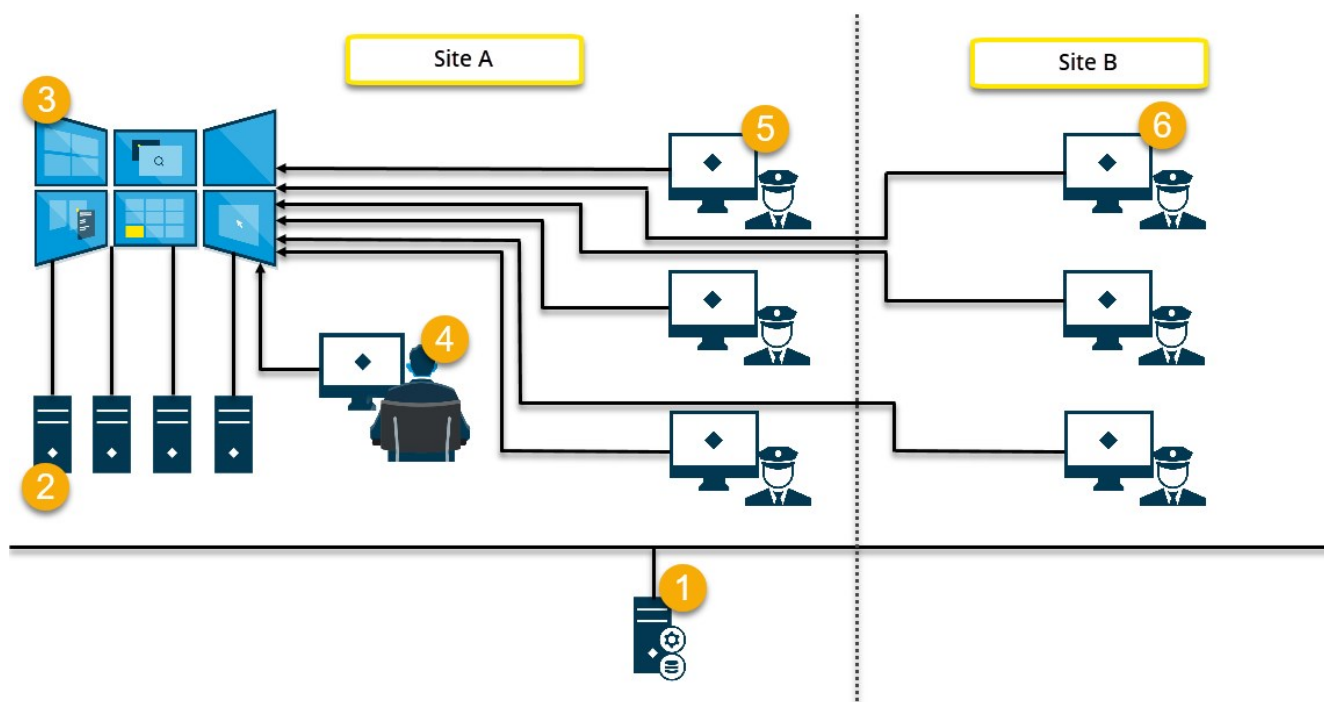


The control room operator is typically physically present in front of the video wall, but can also be located elsewhere.

5. (5, 6, 7) Operators typically have their own computers with MOBOTIX HUB Desk Client installed and use the Video Wall control to push content onto a video wall. When an incident occurs, the operators can respond by sharing content with other people who are watching the video wall. Such content can be, for example, a bookmarked video sequence or an image of a suspect.

Operators may sit in front of the video wall, but can also be situated elsewhere on the same site.

Example 2 - video wall with sixteen physical monitors in a multi-site setup



Explanation of the illustration:

Requirements and considerations

1. The MOBOTIX HUB VMS server (the Management Server) that operators and system administrators connect to when they log in to MOBOTIX HUB Desk Client or MOBOTIX HUB Management Client.
2. Four unattended computers with MOBOTIX HUB Desk Client installed which are dedicated to driving the video wall. When the number of physical monitors increase, MOBOTIX recommends that you distribute the load across multiple computers. In this example, there are four computers with four physical monitors distributed on each.
3. The video wall and its physical monitors.
4. In this example, the control room operator has the overall control of the video wall and decides what to display. They use their own computer to control what happens on the video wall by:
 - Opening the Video Wall monitors on their own displays or monitors. Whatever action the operator takes, it is mirrored on the video wall, for example, playing back recorded video
 - Using the Video Wall control



The control room operator is typically physically present in front of the video wall, but can also be located elsewhere.

5. Operators typically have their own computers with MOBOTIX HUB Desk Client installed and use the Video Wall control to push content onto a video wall. When an incident occurs, the operators can respond by sharing content with other people who are watching the video wall. Such content can be, for example, a bookmarked video sequence or an image of a suspect.

Operators on site A may be placed in front of the video wall, but can also be placed elsewhere, for example in other rooms or buildings.

6. Operators on site B do not have visual contact with the video wall, but they can view the Video Wall monitors on their own displays or monitors. When an incident requires attention, they can use the Video Wall control to push content onto the video wall.

Configuration

Configuring MOBOTIX HUB Video Wall

You can configure any number of Video Wall definitions. Configuring a Video Wall definition is a two-step process. First, you configure your Video Wall definition in MOBOTIX HUB Management Client, including setting user permissions and defining rules. Second, to enable operators to manually push content onto the video wall, MOBOTIX recommends that you add a [Video Wall control](#)¹ to dedicated views in MOBOTIX HUB Desk Client. See also [Video Wall control \(explained\) on page 44](#).

In MOBOTIX HUB Management Client:

1. Create the Video Wall definition and set the general properties, including the name and properties of the view items. See also [Create Video Wall definitions on page 17](#).
2. Add the Video Wall monitors, then set their size and position so they are consistent with the physical monitors of your video wall. See also [Add Video Wall monitors on page 17](#) and [Position Video Wall monitors on page 19](#). The Video Wall control in MOBOTIX HUB Desk Client uses these settings and shows how the monitors have been organized, for example next to or below each other.
3. (optional) Create the empty Video Wall [presets](#)² that are required to define the monitor view layout and add the default cameras at a later stage. See also [Create presets for your Video Wall definition on page 21](#).
4. (optional) For each monitor, select a preset, define its view layout, and add the default cameras. See also [Define view layout and add cameras on page 22](#).



When to use presets? If you want operators to push cameras and views onto the Video Wall manually, you do not need to create presets. However, if you plan to use rules to automatically change what to display on the video wall, you must define presets.

In MOBOTIX HUB Desk Client:

1. To allow operators to push content onto the video wall, create the views you need and add the Video Wall control. With the Video Wall control you can drag-and-drop or send cameras, entire views, and other types of content to individual monitors. See also [Add Video Wall controls to views on page 33](#)
2. Change the view layout of individual Video Wall monitors that have been defined in MOBOTIX HUB Management Client. See also [Change view layout of Video Wall monitors on page 34](#)
3. Reset or change the presets already applied to the Video Wall definition. See also [Reset or change Video Wall presets on page 36](#)

¹A graphical representation of a video wall that allows you to control what is displayed on the different monitors.

²A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

Create Video Wall definitions

To configure a Video Wall definition, you must first create it in MOBOTIX HUB Management Client. Repeat the following steps for each Video Wall definition that you want to create:

1. In MOBOTIX HUB Management Client, expand **Client** and select **Video Wall**.
2. In the **Video Wall** pane, right-click **Video Wall Definitions** and select **Add Video Wall**. A window appears.

The screenshot shows a dialog box titled "Add [icon] Wall" with a close button "X". The dialog is divided into two sections. The first section, "Wall information", contains a "Name:" label followed by a text input field containing "My video wall", and a "Description:" label followed by a larger empty text area. The second section, "General View Item Properties", contains three options: a checked checkbox for "Status text", a radio button for "No title bar", and a selected radio button for "Title bar". At the bottom of the dialog are "OK" and "Cancel" buttons.

3. Specify the settings for the Video Wall.
4. In the **General View Item Properties** settings, specify if you want system status information and title bars to appear above the cameras in the views.
5. Click **OK**. The Video Wall definition is added to the Video Wall pane.
6. Next, add the Video Wall monitors. See also [Add Video Wall monitors on page 17](#).

Add Video Wall monitors

When you have created your Video Wall definition, you must add the Video Wall monitors that your video wall consists of and specify the monitor settings.

Requirements

You have created at least one Video Wall definition. See also [Create Video Wall definitions on page 17](#).

Steps:

1. In the **Video Wall** pane, right-click your **Video Wall** definition and select **Add Monitor**. A window appears.

Add Monitor

Monitor information

Name:

Monitor 5

Description:

Displays six outdoor cameras.

Dimensions

Size:

20

inches

Aspect ratio:

4:3

Preset Behavior

Empty preset:

Preserve

Empty preset item:

Preserve

Element insertion:

Independent

OK

Cancel

2. Configure the size and aspect ratio of the monitor, so that it matches one of the physical monitors on the video wall.

3. Specify the [preset](#)¹ behavior.

- **Empty preset** - control what happens in MOBOTIX HUB Desk Client when an operator applies an empty preset:
 - **Preserve** - keep what is currently being displayed
 - **Clear** - replace the current content with the empty preset
- **Empty preset item** - control what happens in MOBOTIX HUB Desk Client to individual preset items when an operator applies a preset with empty preset items:
 - **Preserve** - keep what the preset item is currently displaying
 - **Clear** - replace the preset item with the empty preset item
- **Element insertion** - control what happens in MOBOTIX HUB Desk Client when an [operator](#)² drags a camera onto an item in the preset:
 - **Independent** - replace the camera already in the preset item with the new camera
 - **Linked** - push the content from left to right from the view item where you inserted the new camera

4. Click **OK** to save your changes.

5. Keep adding Video Wall monitors until the number of Video Wall monitors matches the number of physical monitors.

6. Next, position the monitors. See also [Position Video Wall monitors on page 19](#).

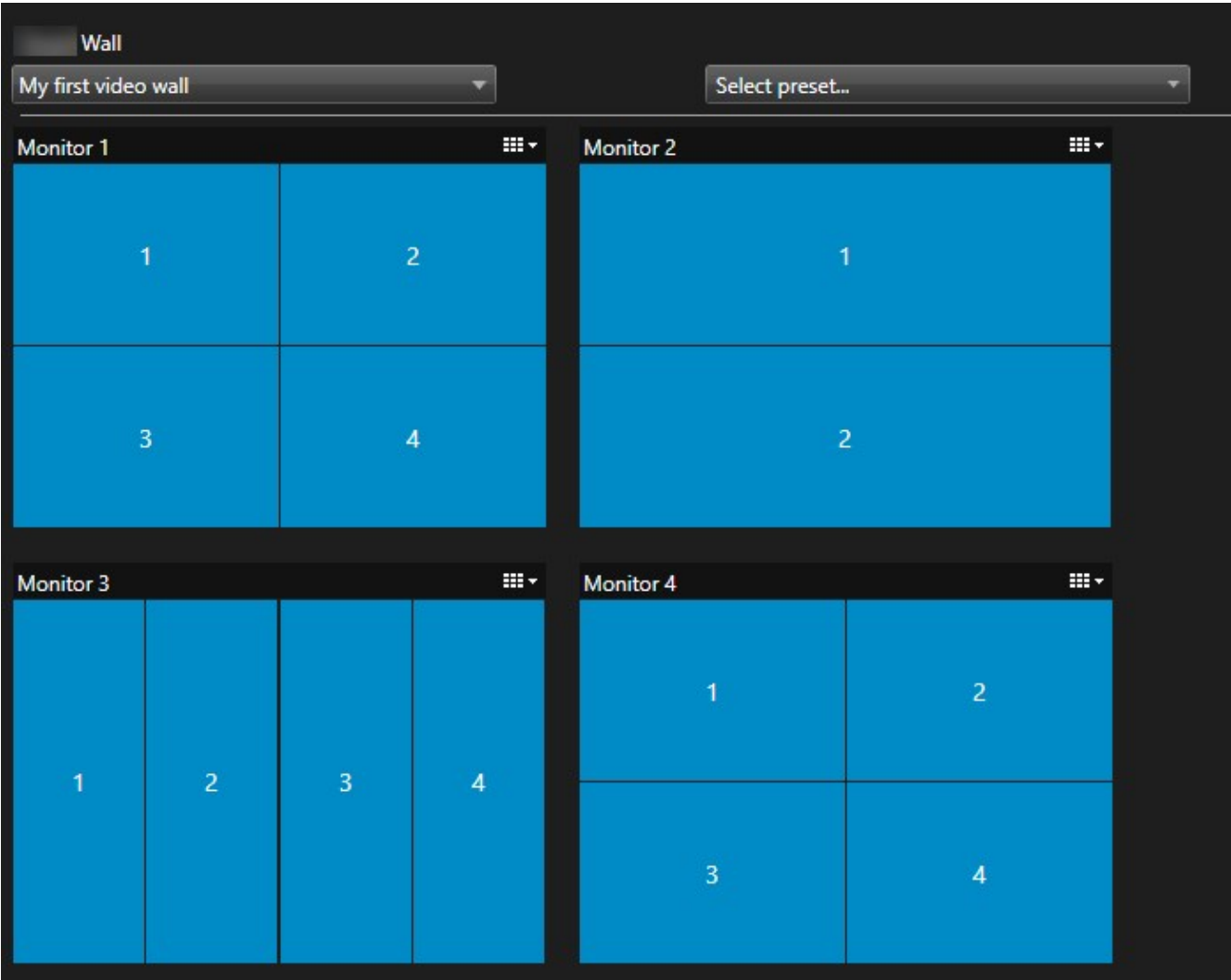
Position Video Wall monitors

When you have added the monitors to your Video Wall definition, you must position the different monitors to match the setup of the physical monitors on the video wall.

Example

¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

²A professional user of an MOBOTIX HUB client application.



The image in the example shows the Video Wall control in MOBOTIX HUB Desk Client. The four monitors are laid out in sequence and in two rows - starting with **Monitor 1** and ending with **Monitor 4**.

Requirements

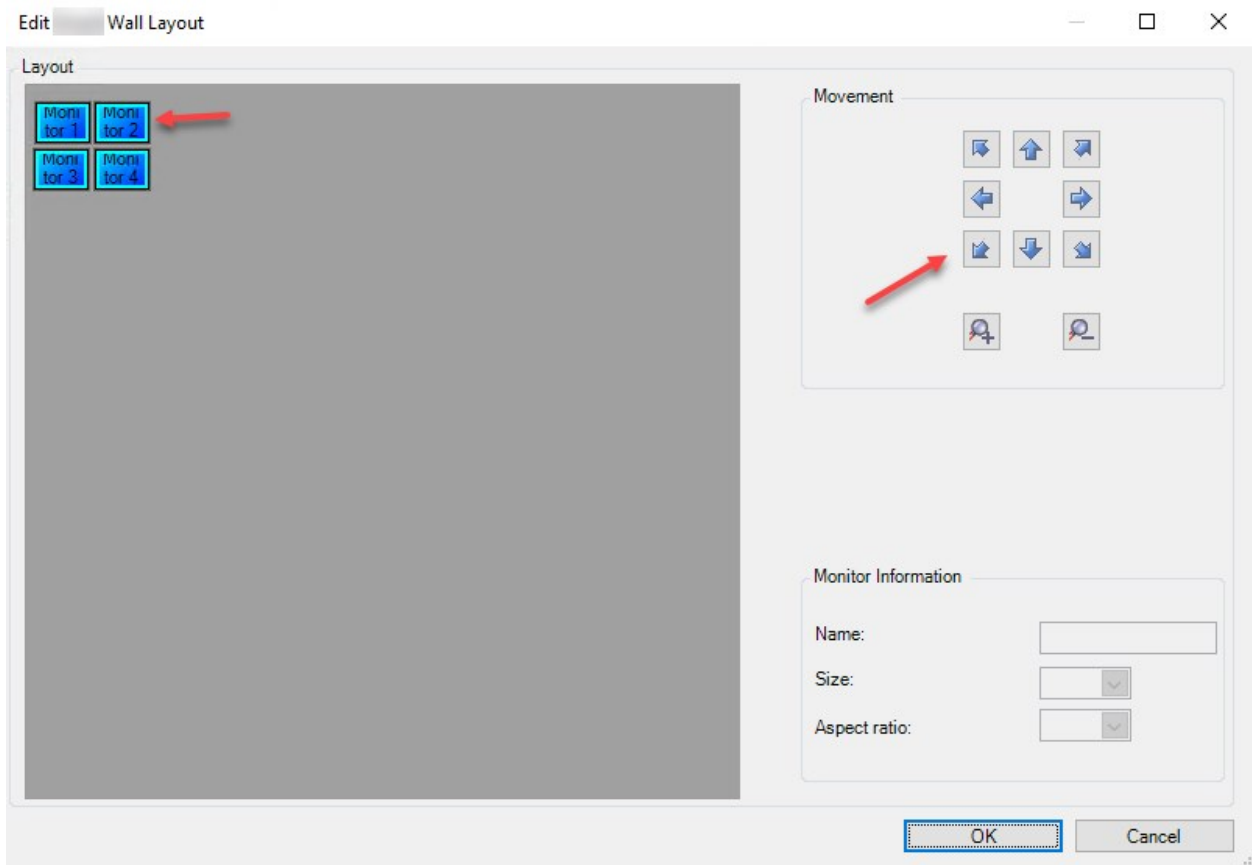
You have added the monitors to your Video Wall definition. See also [Add Video Wall monitors on page 17](#).

Steps:

- 1. In the **Video Wall** pane, select your Video Wall.
- 2. In the **Properties** pane, click the **Layout** tab.



- Click the **Edit** button. A window appears.



- Drag and drop the monitors to position them, or use the arrows.
- Click  or  to zoom in or out.
- If you have not already specified the size and aspect ratio of the monitors, you can do that now.
- Click **OK** to save your changes. The positioning and sizing of monitors are visualized in the Video Wall control in MOBOTIX HUB Desk Client.
- Next, add [presets](#)¹. Adding presets is a requirement for specifying the layout of Video Wall monitors and adding cameras to your monitors. See also [Create presets for your Video Wall definition on page 21](#).

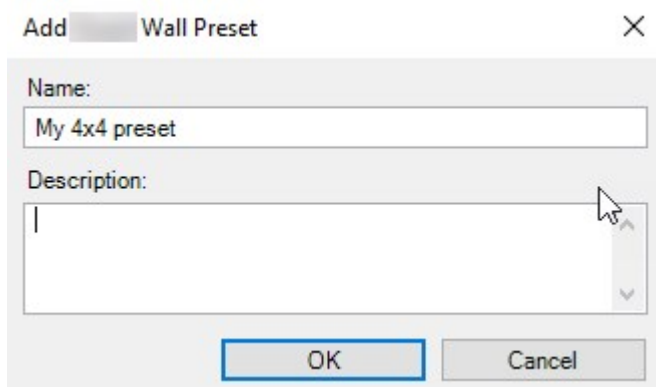
Create presets for your Video Wall definition

With presets, you can configure what your video wall or specific monitors show. Create as many presets as you need.

Steps:

¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

1. In the **Video Wall** pane, select your Video Wall.
2. In the **Properties** pane, click the **Presets** tab.
3. Click **Add New**. A window appears.



4. Enter a type and add a description if you want to.
5. Click **OK** to save your changes.
6. Repeat the steps above for each preset that you want to add.
7. Next, add view layout and cameras to the monitors. See also [Define view layout and add cameras on page 22](#).

Define view layout and add cameras

To control what to display on a monitor, you must select a preset, define a view layout, for example **2x2**, and then possibly add cameras.



- One preset typically covers all the monitors of the video wall. For each of those monitors, select the same preset and configure it according to what the monitor shall display.
- Presets can also be empty, which may be helpful if you are using blank screen monitoring. See also [Blank screen monitoring \(explained\) on page 31](#).

Requirements

At least one preset has been created. See also [Create presets for your Video Wall definition on page 21](#).

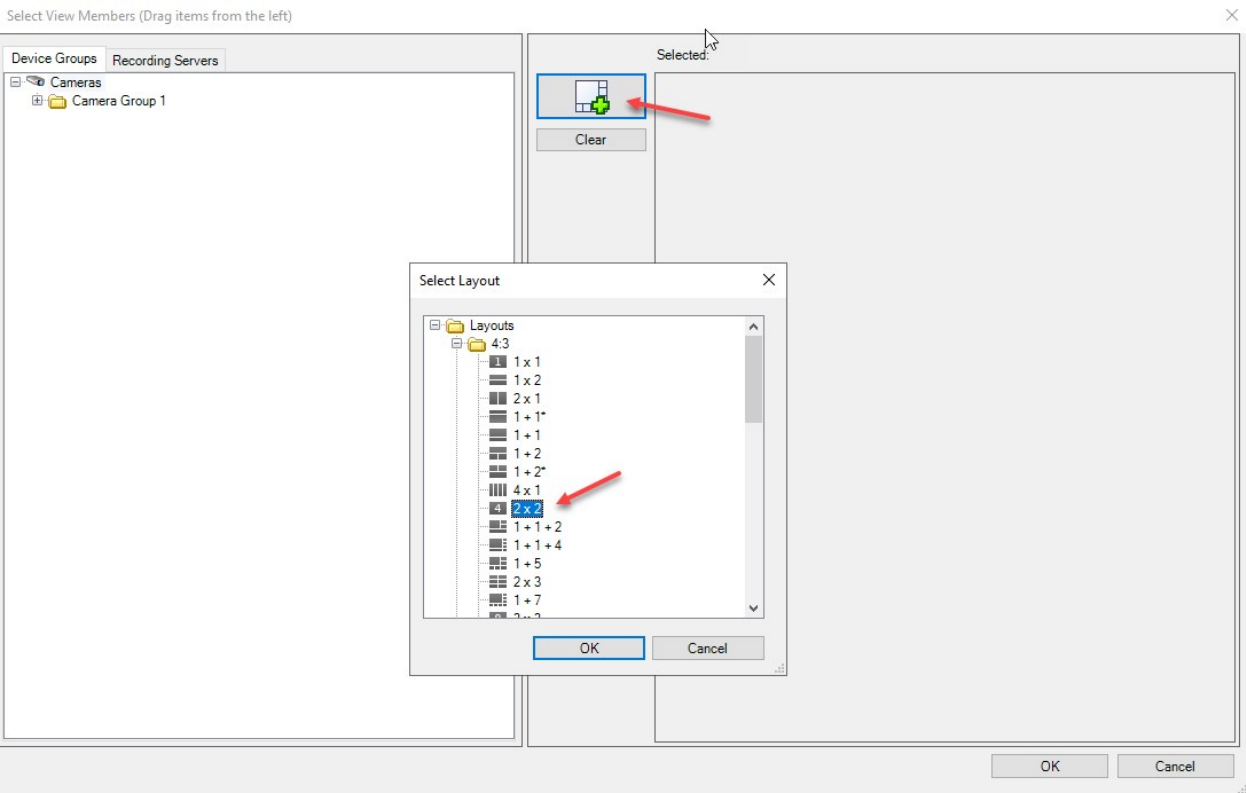
Steps:

1. In the **Video Wall** pane, select the monitor that you want to add cameras to.
2. In the **Properties** pane, click the **Presets** tab.
3. Select the preset.

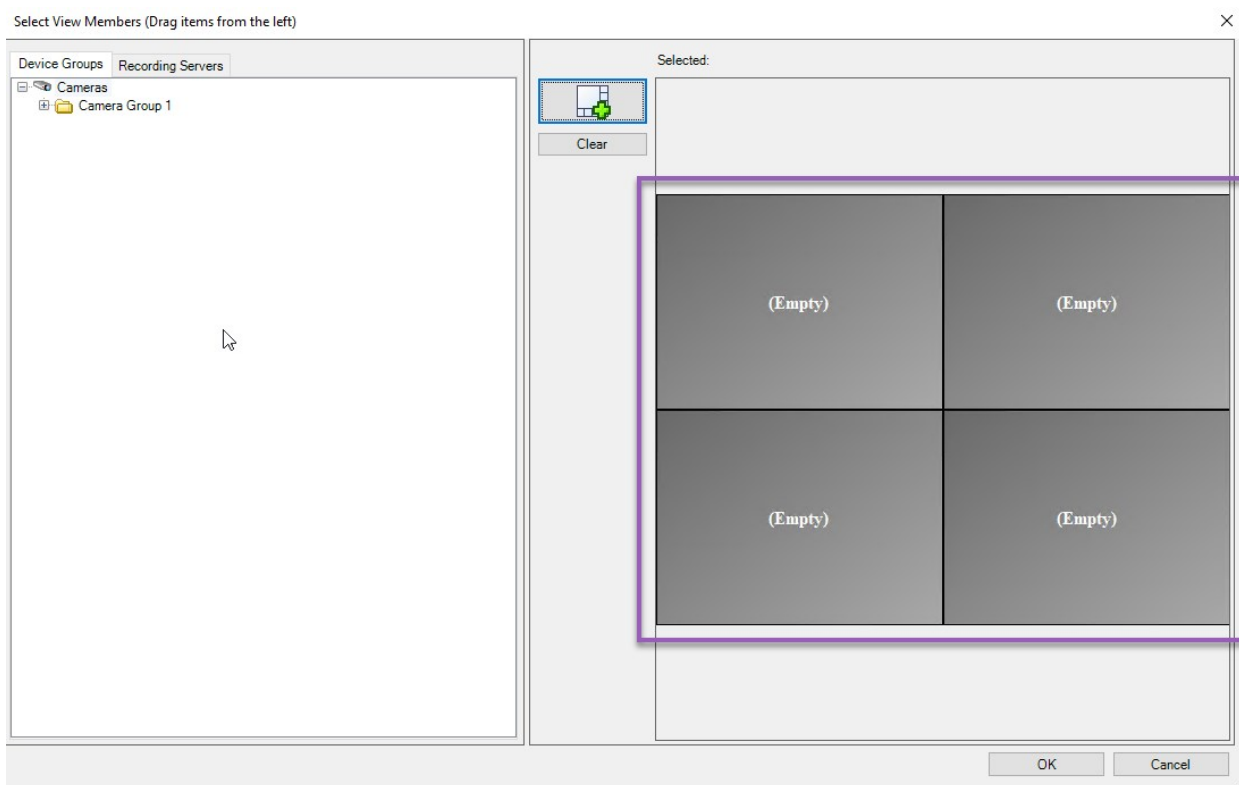
4. Click **Edit**. A window appears.



5. Click . An additional window appears.



6. Select a layout and click **OK**. The layout is shown on the right-hand side of the first window.



7. From the **Device Groups** or **Recording Servers** tab, drag the cameras onto the preset items - one by one. You can also leave preset items empty.
8. Click **OK** to save your changes.
9. Repeat the steps above for each monitor.
10. Now, you can start using your **Video Wall** in MOBOTIX HUB Desk Client.



You must also configure the operators' user permissions for using MOBOTIX HUB Video Wall. See also [Specify user permissions for MOBOTIX HUB Video Wall on page 25](#).

Activate presets for your Video Wall definition

To view Video Wall content in MOBOTIX HUB Desk Client, first you must activate the presets created for your Video Wall definitions. You can also activate the presets in MOBOTIX HUB Desk Client.

Steps:

- 1. In the **Site Navigation** pane, expand **Security** and select **Roles**.
- 2. In the **Roles** pane, select an existing role, or create a new role by right-clicking and selecting **Add Role**.
- 3. To set user permissions for all Video Wall definitions, click the **Overall Security** tab.

Roles

Name

Administrators (Administrators have co

Operators

Role Settings

Select a security group for which to set security

Microphones

Speakers

Metadata

Input

Output

Wall

View Groups

User-defined Events

Analytics Events

Generic Events

Matrix

Rules

Role can perform the following on the selected security group

	Allow	Deny
Full control	☒	☐
Read	☒	☐
Edit	☒	☐
Delete	☒	☐
Operate	☒	☐
Create Wall	☒	☐
Manage security	☒	☐
Playback	☒	☐

Info

Users and Groups

Overall Security

Device

PTZ

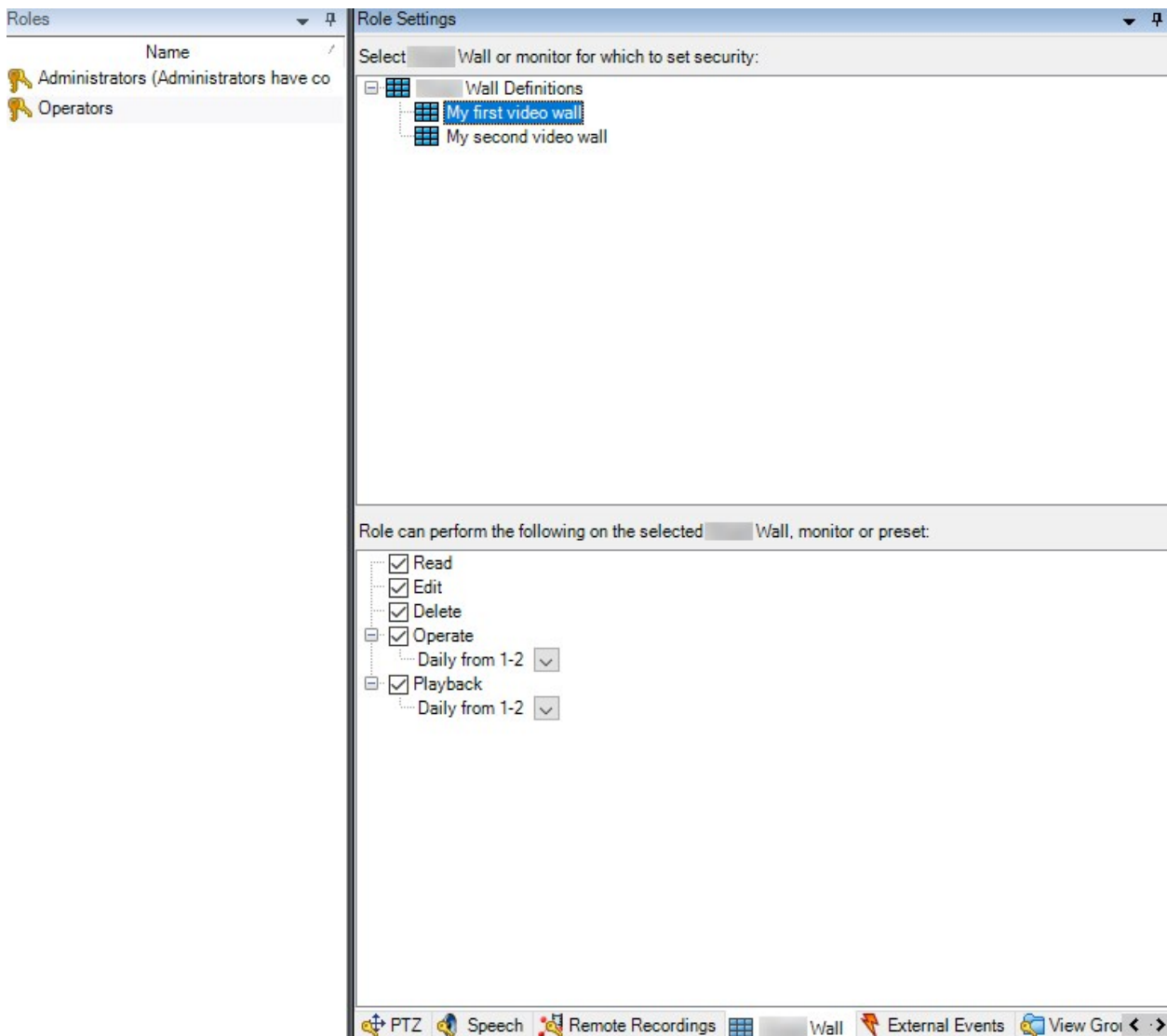
Speech

Remote Recordings

Wall

External Ever

- To set user permissions for specific Video Wall definitions, click the **Video Wall** tab.



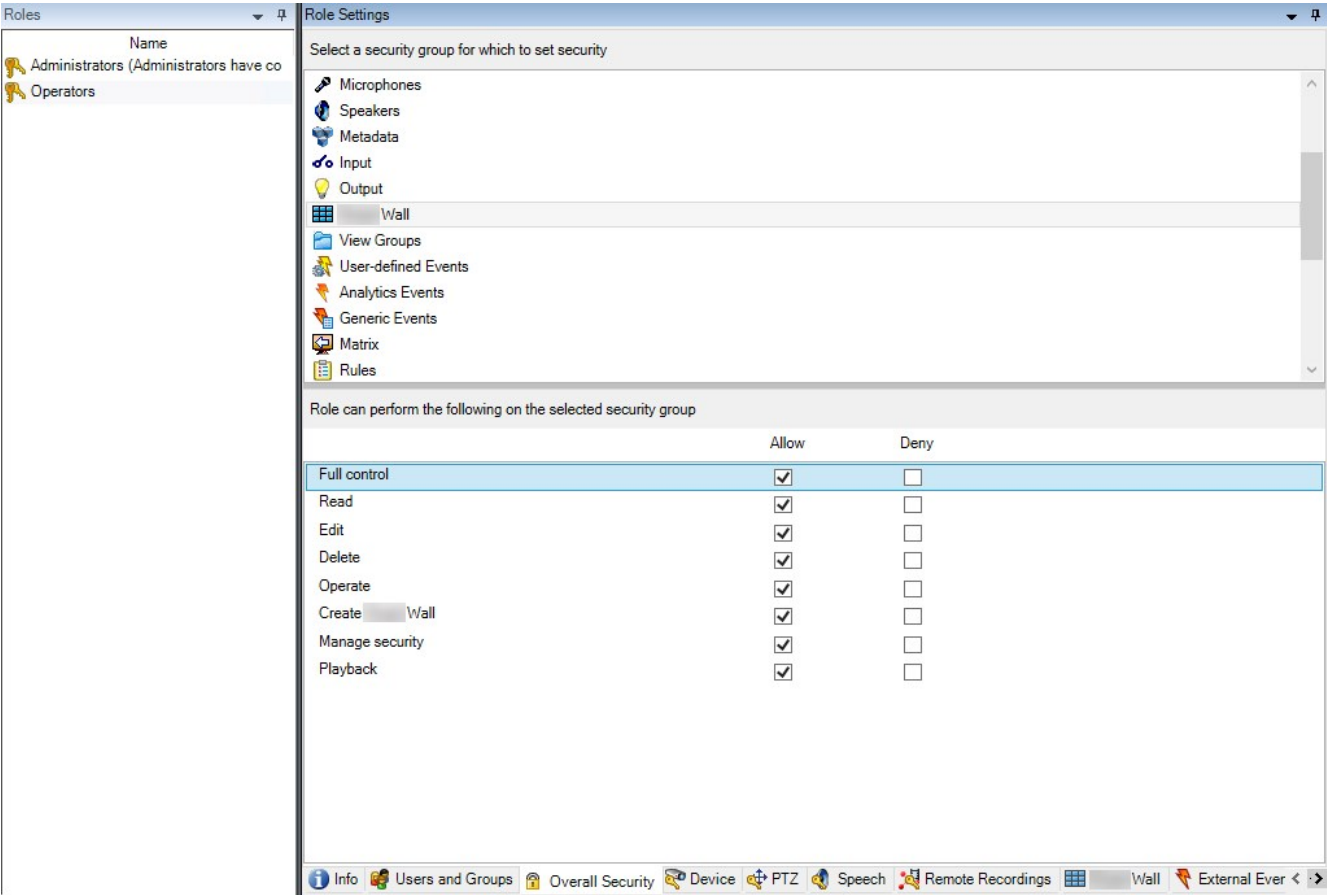
- Select the user permissions that are relevant for the selected role.
- (optional) To grant users **Operate** or **Playback** permissions for a specific period of time, select the required check box, and then select a time profile.

User permissions for Video Wall (explained)

The settings described in this topic pertain to **Roles** in MOBOTIX HUB Management Client. To set the user permissions for all Video Wall definitions, go to the **Overall Security** tab. To set the user permissions for specific Video Wall definitions, go to the **Video Wall** tab.

User permissions that apply to all Video Wall definitions

Roles > **Overall Security** tab > Video Wall

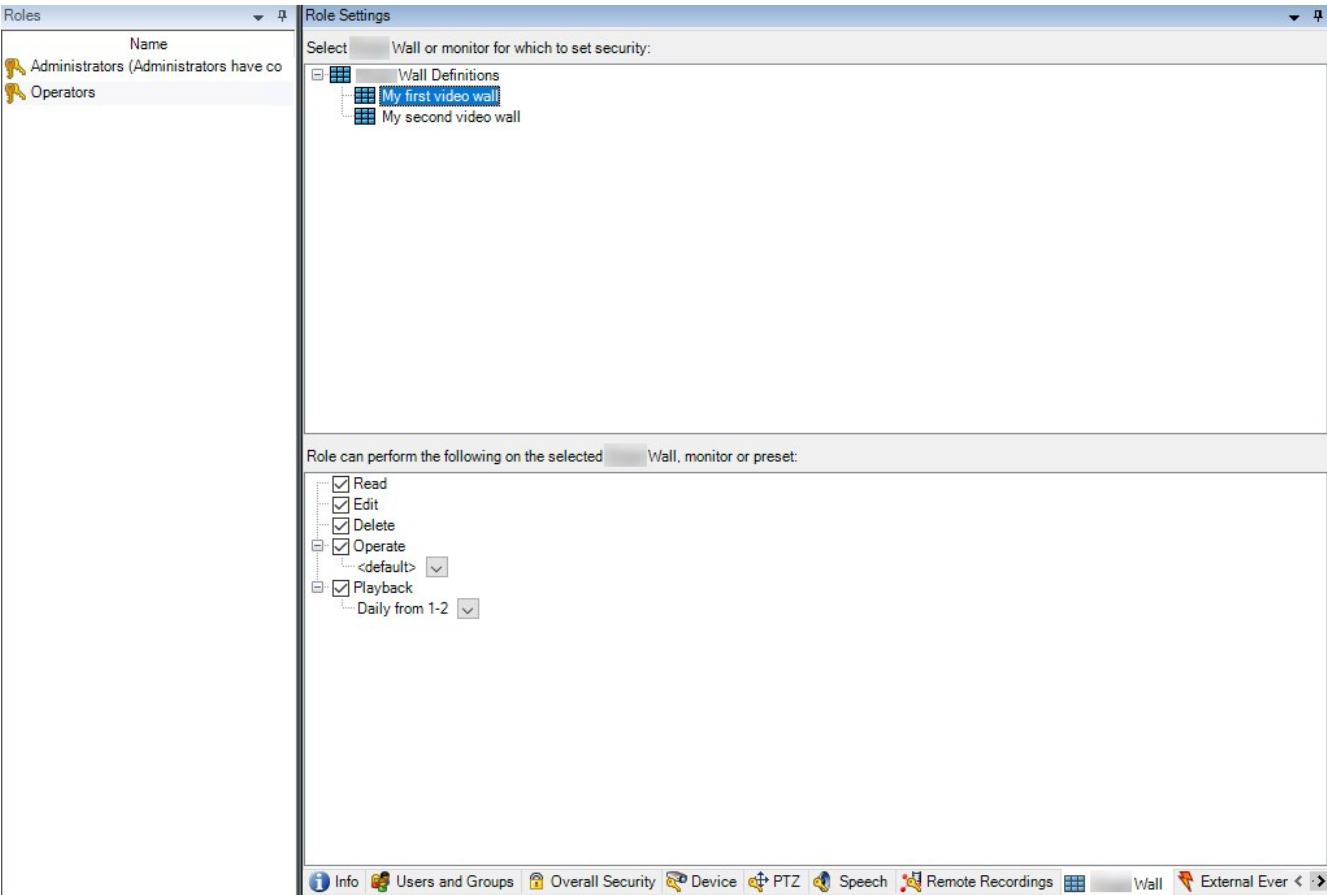


Security permission	Description
Full control	Enables the permission to manage all security permissions in MOBOTIX HUB Management Client.
Read	Enables the permission to view a video wall in MOBOTIX HUB Desk Client.
Edit	Enables the permission to edit properties for the Video Wall definition in MOBOTIX HUB Management Client.
Delete	Enables the permission to delete existing Video Wall definitions in MOBOTIX HUB Management Client.
Operate	Enables the permission to activate and modify Video Wall definitions, for example to change and activate presets or apply cameras on views in MOBOTIX HUB Desk Client and in MOBOTIX HUB Management Client.

Security permission	Description
	 You can associate Operate with time profiles that define when the user permission applies.
Create Video Wall	Enables the permission to create new Video Wall definitions in MOBOTIX HUB Management Client.
Manage security	Enables the permission to manage security permissions in MOBOTIX HUB Management Client for the Video Wall definition.
Playback	Enables the permission to play back recorded data from a video wall in MOBOTIX HUB Desk Client.  You can associate Playback with time profiles that define when the user permission applies.

User permissions that apply to specific Video Wall definitions

Roles > Video Wall tab



Through roles, you can grant your client users Video Wall-related user permissions:

Name	Description
Read	Allows users to view the selected Video Wall in MOBOTIX HUB Desk Client.
Edit	Allows users to edit the selected Video Wall in the Management Client.
Delete	Allows users to delete the selected Video Wall in the Management Client.
Operate	Allows users to apply layouts on the selected Video Wall in MOBOTIX HUB Desk Client and to activate presets.
Playback	Allows users to play back recorded data from the selected Video Wall in MOBOTIX HUB Desk Client.

Create rules with Video Wall presets

By combining rules and Video Wall [presets](#)¹, you can control and automate what is displayed on your video wall. For example, a rule can trigger your video wall to display a certain Video Wall preset during a certain day. You can even use rules to control what individual monitors display.

Example of a rule triggering a Video Wall preset:

Manage Rule

Name:

Change the preset in my video wall

Description:

Active:

☒

Step 3: Actions

Select actions to perform

☐ Start recording on <devices>

☐ Start feed on <devices>

☒ Set <Wall> to <preset>

☐ Set <Wall> <monitor> to show <cameras>

☐ Set <Wall> <monitor> to show text '<message>'

☐ Remove <cameras> from <Wall> monitor <monitor>

☐ Set live frame rate on <devices>

☐ Set recording frame rate on <devices>

☐ Set recording frame rate to all frames for MPEG-4/H.264/H.265 on <devices>

☐ Start patrolling on <device> using <profile> with PTZ <priority>

Edit the rule description (click an underlined item)

Perform an action in a time interval
within selected time in [Daily from 1-2](#)
Set <Wall> [My first video wall](#) to preset [My 3x2 preset](#)

Perform an action when time interval ends
Set <Wall> [My first video wall](#) to preset [My 2x1 preset](#)

Help

Cancel

< Back

Next >

Finish

Blank screen monitoring (explained)

Blank screen monitoring is an operation mode where operators only see video when a situation requires their attention. The video wall does not display any cameras during normal operation. Only when an event occurs does the video wall display video from the related cameras. When the incident has been resolved, the monitors showing the video are cleared.

¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

To enable blank screen monitoring, you must create and apply a [preset](#)¹ that only has a view layout, but no cameras. Use rules to display the cameras associated with certain events on your video wall, then clear the monitors again. See also [Create rules with Video Wall presets on page 31](#).

Test your Video Wall configuration

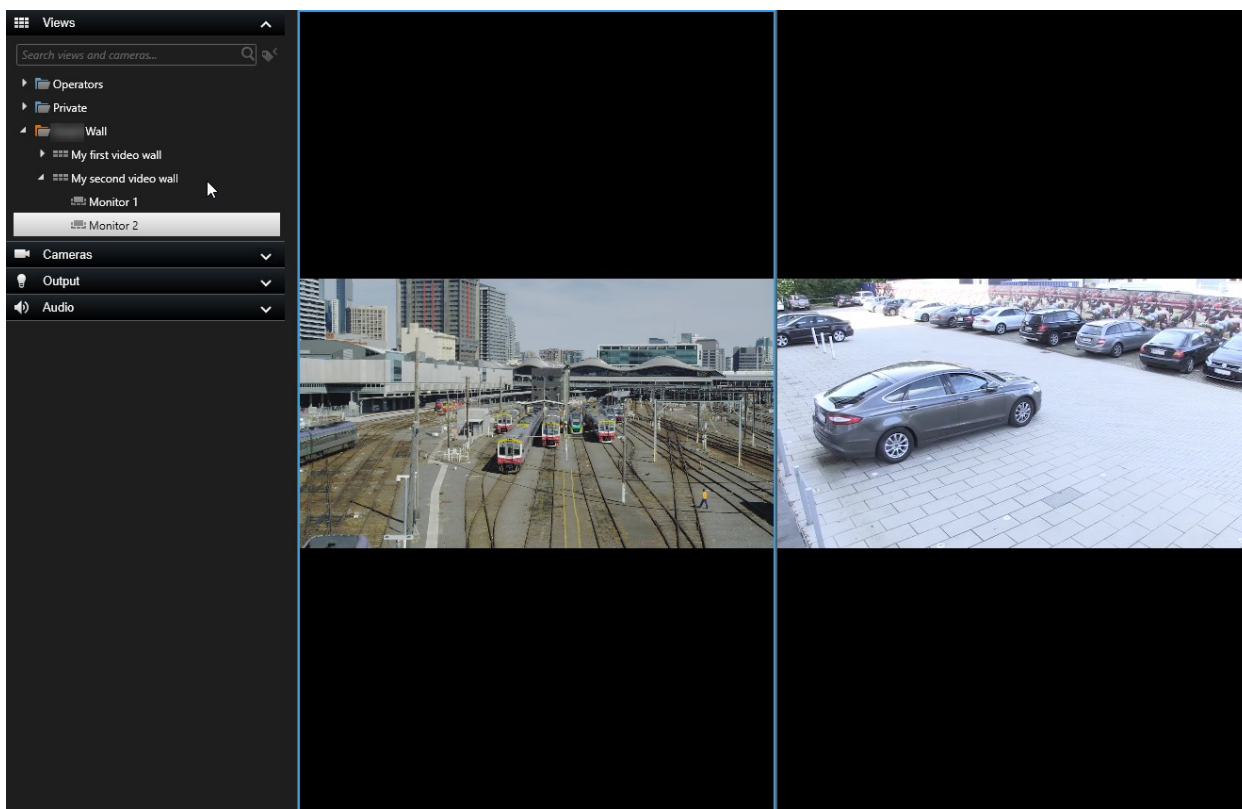
After configuring MOBOTIX HUB Video Wall in MOBOTIX HUB Management Client, you may want to test the configuration before you start adding the Video Wall control to your views in MOBOTIX HUB Desk Client.

Requirements

You have created at least one preset, assigned it to a monitor, defined its layout, and added at least one camera. See also [Create presets for your Video Wall definition on page 21](#) or [Define view layout and add cameras on page 22](#).

Steps:

1. Log in to MOBOTIX HUB Desk Client.
2. In the **Views** pane, expand the **Video Wall** node.
3. Select a Video Wall definition and then one of its monitors. If correctly configured, the main view shows the cameras that the [preset](#)² is configured to show.



¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

²A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

The example shows a monitor with two cameras.

Setting up MOBOTIX HUB Video Wall in MOBOTIX HUB Desk Client

After doing the initial configuration in MOBOTIX HUB Management Client, operators can start using the video wall by sending the Video Wall monitors onto the physical monitors connected to the system. This may include one or both of these options:

- Static views
- Views that change dynamically based on rules

Additional configuration is necessary if you want to:

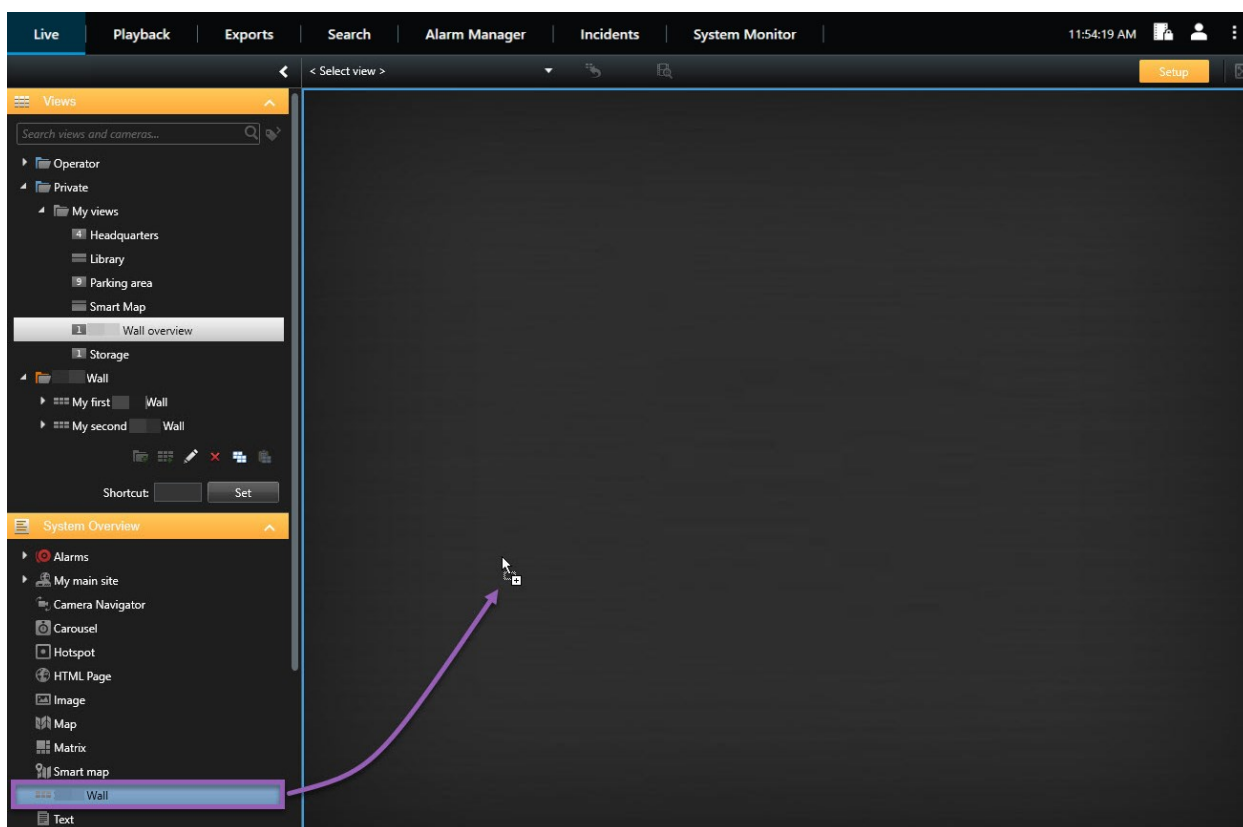
- Enable operators to control and manually change what is being displayed on the physical monitors. In that case, you must add the Video Wall control to designated views. See also [Add Video Wall controls to views on page 33](#)
- Change the existing view layout of individual monitors. See also [Change view layout of Video Wall monitors on page 34](#)
- Reset or change the [presets](#)¹ already applied to the Video Wall definition. See also [Reset or change Video Wall presets on page 36](#)

Add Video Wall controls to views

Before you can start pushing video and other types of content onto your video wall, you must add the Video Wall control to one or more views. The control is a graphical representation of the video wall. .

¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

1. Click **Setup** to enter setup mode.
2. Select the view that you want to add the Video Wall control to.
3. In the **System overview** pane, drag the **Video Wall** element to the relevant view item.



4. Click **Setup** again to exit setup mode. Your changes are saved.
5. Now you can start pushing cameras and other types of content to your video wall.

Change view layout of Video Wall monitors

You can change the preconfigured view layout of the Video Wall monitors. This is useful if you need to display additional cameras or other types of content.

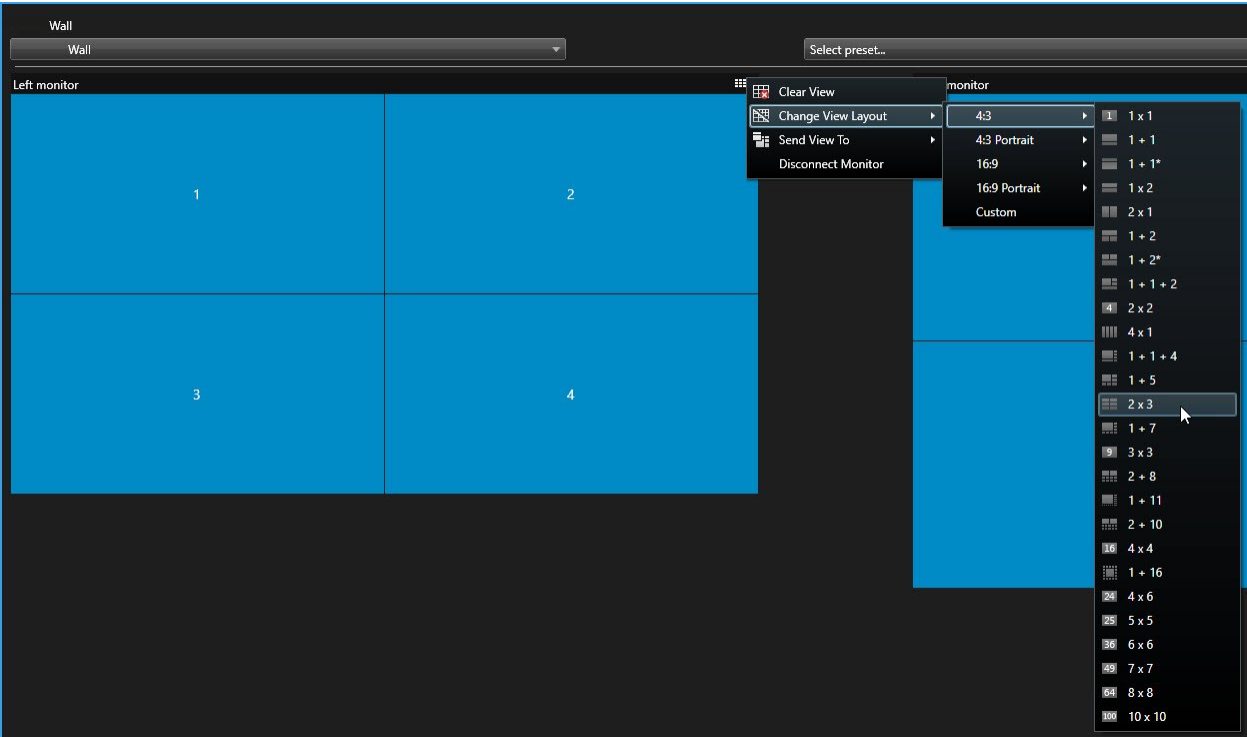
Example

An incident has been recorded on five cameras, and you even have a picture of a suspect. You want to display the video and picture on the video wall, so the security staff can view the incident and detain the suspect. Because the current monitors in your video wall are pre-configured to only show **2x2** cameras, you need to change the view layout to **2x3** to add the fifth camera and the picture.

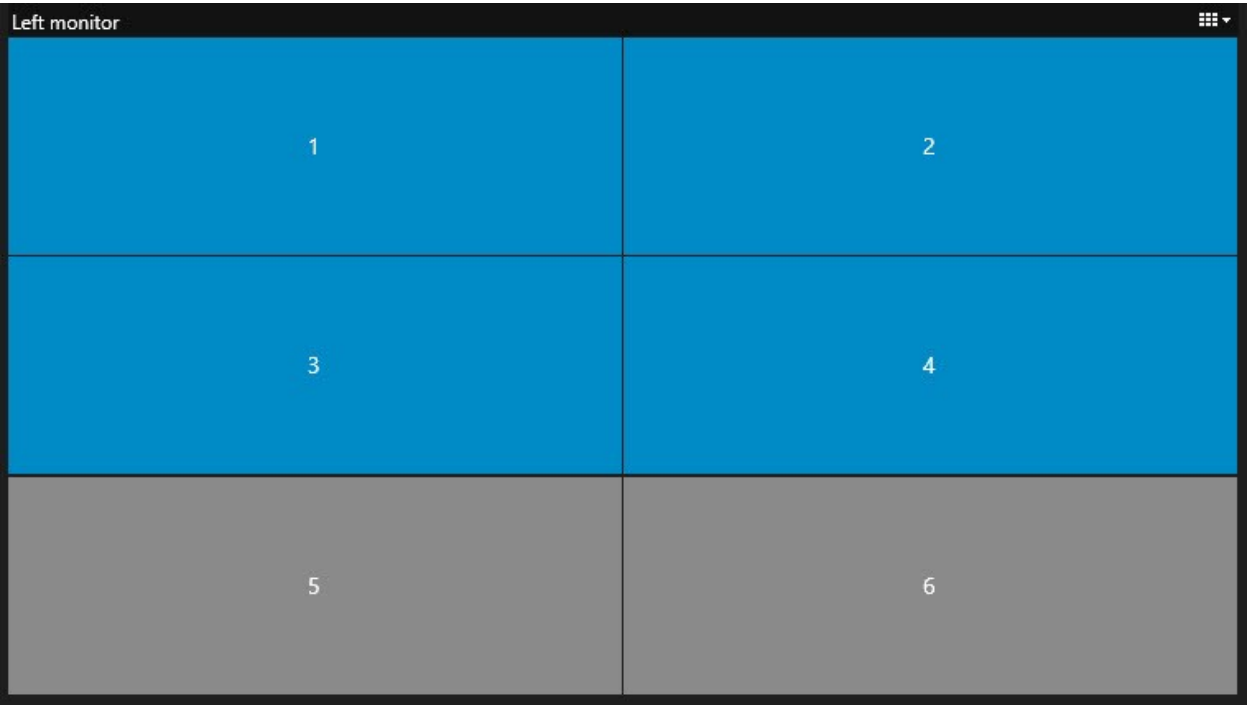
Steps:

Configuration

- 1. On the **Live** or **Playback** tab, open the view that contains your Video Wall control.
- 2. Click the  icon for the monitor, select **Change view layout**, and then the display format, for example **4:3**.



- 3. Select the view layout. In this example, select **2x3**. Two grayed out items are added to the view layout.



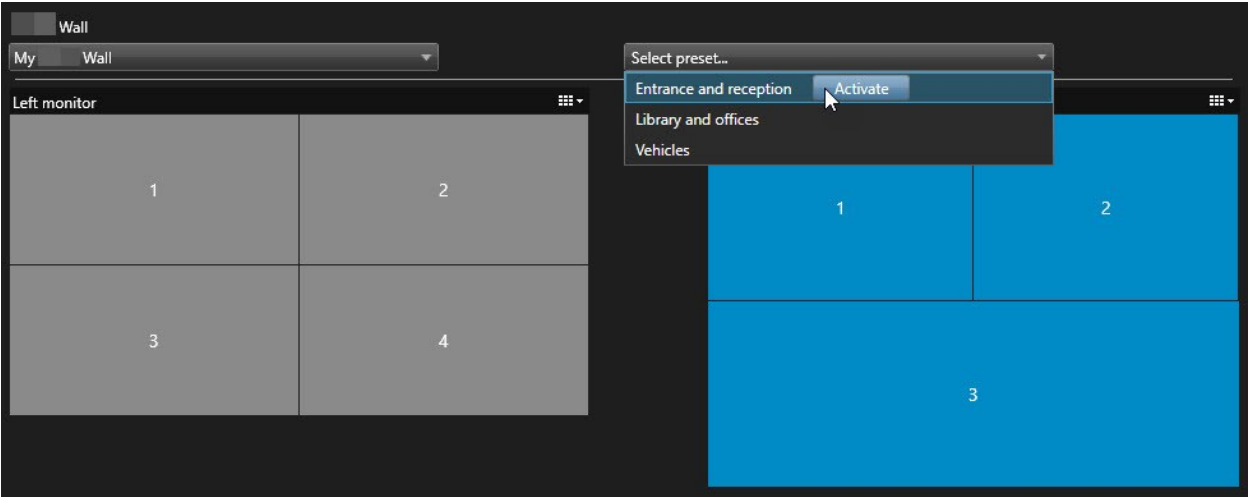
- 4. Now, you can add additional content. .

Reset or change Video Wall presets

[Presets](#)¹ are often changed according to rules or time schedules, or other operators can change the preset. However, sometimes you may want to reset the video wall, or apply a specific preset in the course of certain events.

Steps:

- 1. Open the view that contains the Video Wall control.
- 2. In the **Select preset** list, hover over the preset that you want to apply.
- 3. Click **Activate**. The affected physical monitors in the video wall are changed accordingly.



User interface details

Video Wall (Client node)

Video Wall properties

Info tab

On the **Info** tab for a Video Wall definition, you can add and edit Video Wall properties.

Name	Description
Name	The name of the Video Wall definition. Displayed in MOBOTIX HUB Desk Client as the Video

¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

Name	Description
	Wall view group name.
Description	A description of the Video Wall definition. The description is only used internally in MOBOTIX HUB Management Client.
Status text	Display camera and system status information in camera view items.
No title bar	Hide the title bar on all view items on the video wall.
Title bar	Show the title bar on all view items on the video wall.

Presets tab

On the **Presets** tab for a Video Wall definition, you can add and edit Video Wall [presets](#)¹.

Name	Description
Add New	Add a preset to your Video Wall definition. Enter a name and description for the preset.
Edit	Edit the name or description of a preset.
Delete	Delete a preset.
Activate	Apply the preset on the Video Wall monitors that are configured to use the preset. To apply a preset automatically, you must create a rule that uses the preset.

Layout tab

On the **Layout** tab for a Video Wall definition, you position the monitors, so their positions resemble the mounting of the physical monitors on the video wall. The layout is also used in MOBOTIX HUB Desk Client.

¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

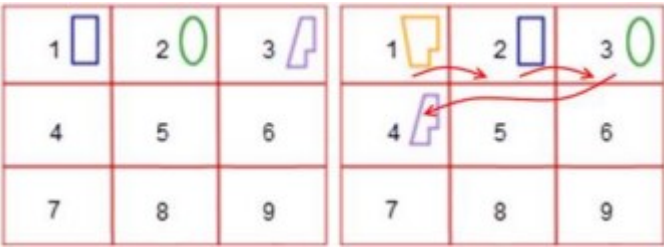
Name	Description
Edit	Adjust the positioning of the monitors.
Movement	To move a monitor to a new position, select the monitor and drag it to the desired position, or click one of the arrow buttons to move the monitor in the selected direction.
Zoom buttons	Zoom in or out of the Video Wall layout preview to ensure you position the monitors correctly.
Name	The name of the monitor. The name is displayed in MOBOTIX HUB Desk Client.
Size	The size of the physical monitor on the video wall.
Aspect ratio	The height/width relationship of the physical monitor on the video wall.

Monitor properties

Info tab

On the **Info** tab for a monitor in a Video Wall preset, you can add monitors and edit the monitor settings.

Name	Description
Name	The name of the monitor. The name is displayed in MOBOTIX HUB Desk Client.
Description	A description of the monitor. The description is only used internally in the MOBOTIX HUB Management Client.
Size	The size of the physical monitor on the video wall.
Aspect ratio	The height/width relationship of the physical monitor on the video wall.
Empty preset	Defines what should be displayed on a monitor with an empty preset layout when a new Video Wall preset is triggered or selected in MOBOTIX HUB Desk Client: • Select Preserve to keep the current content on the monitor. • Select Clear to clear all content so nothing is displayed on the monitor.
Empty preset	Defines what should be displayed in an empty preset item when a new Video Wall preset is

Name	Description
item	triggered or selected in MOBOTIX HUB Desk Client: • Select Preserve to keep the current content in the layout item. • Select Clear to clear the content so nothing is displayed in the layout item.
Element insertion	Defines how cameras are inserted in the monitor layout when viewed in the MOBOTIX HUB Desk Client: • Independent - only the content of the affected layout item changes, the rest of the content in the layout remain the same. • Linked - the contents of the layout items are pushed from left to right. If, for example, a camera is inserted in position 1, the previous camera of position 1 is pushed to position 2, the previous camera of position 2 is pushed to position 3, and so on. Illustrated in this example: 

Presets tab

On the **Presets** tab for a monitor in a Video Wall preset, you can edit the view layout and content of the monitor in the selected Video Wall preset.

Name	Description
Preset	A list of Video Wall presets for the selected Video Wall definition.
Edit	Click Edit to edit the layout and the content of the selected monitor. Double-click a camera to remove it. Click Clear to define a new layout or to exclude the monitor in the Video Wall preset so the monitor is available for other content not controlled by the Video Wall preset. Click  to select the layout you want to use with your monitor, and click OK.

Video Wall check box (Client node > Management Client Profiles)

How to find the Video Wall check box:

1. From Site Navigation, select **Client > Management Client Profiles**.
2. Then select a profile.
3. On the **Profile** tab, select **Navigation > Client**.

Element	Description
Client	Allows the administrator user associated with the Management Client profile to see Video Wall related features and settings.

Actions and stop actions (Manage Rule wizard)

How to find the Video Wall related actions and stop actions:

1. From the **Site Navigation**, select **Rules and Events > Rules**.
2. In the **Rules** pane, right click a rule and select to add or edit a rule to open the **Manage Rule** wizard,

A set of actions and stop actions related to MOBOTIX HUB Video Wall are available for rule creation in the **Manage Rule** wizard.

Action	Description
Set <Video Wall> to <preset>	Sets the MOBOTIX HUB Video Wall to a selected preset. Specify the preset on the Video Wall Presets tab. No mandatory stop action: This type of action does not require a stop action.You can specify optional stop actions to be performed on either an event or after a period of time.
Set <Video Wall> <monitor> to show <cameras>	Sets a specific MOBOTIX HUB Video Wall monitor to display live video from the selected cameras on this site or any child site configured in MOBOTIX Federated Architecture. No mandatory stop action: This type of action does not require a stop action.You can specify optional stop actions to be performed on either an event or after a period of time.
Set <Video Wall>	Sets a specific MOBOTIX HUB Video Wall monitor to display a user-defined text

Action	Description
<monitor> to show text <messages>	message of up to 200 characters. No mandatory stop action: This type of action does not require a stop action. You can specify optional stop actions to be performed on either an event or after a period of time.
Remove <cameras> from <Video Wall> monitor <monitor>	Stop displaying video from a specific camera. No mandatory stop action: This type of action does not require a stop action. You can specify optional stop actions to be performed on either an event or after a period of time.

Overall Security tab (Security node > Roles)

Security permission	Description
Full control	Enables the permission to manage all security permissions in MOBOTIX HUB Management Client.
Read	Enables the permission to view a video wall in MOBOTIX HUB Desk Client.
Edit	Enables the permission to edit properties for the Video Wall definition in MOBOTIX HUB Management Client.
Delete	Enables the permission to delete existing Video Wall definitions in MOBOTIX HUB Management Client.
Operate	Enables the permission to activate and modify Video Wall definitions, for example to change and activate presets or apply cameras on views in MOBOTIX HUB Desk Client and in MOBOTIX HUB Management Client.  You can associate Operate with time profiles that define when the user permission applies.
Create Video Wall	Enables the permission to create new Video Wall definitions in MOBOTIX HUB Management Client.

Security permission	Description
Manage security	Enables the permission to manage security permissions in MOBOTIX HUB Management Client for the Video Wall definition.
Playback	Enables the permission to play back recorded data from a video wall in MOBOTIX HUB Desk Client.  You can associate Playback with time profiles that define when the user permission applies.

Video Wall tab (Security node > Roles)

Through roles, you can grant your client users Video Wall-related user permissions:

Name	Description
Read	Allows users to view the selected Video Wall in MOBOTIX HUB Desk Client.
Edit	Allows users to edit the selected Video Wall in the Management Client.
Delete	Allows users to delete the selected Video Wall in the Management Client.
Operate	Allows users to apply layouts on the selected Video Wall in MOBOTIX HUB Desk Client and to activate presets.
Playback	Allows users to play back recorded data from the selected Video Wall in MOBOTIX HUB Desk Client.

Operation

MOBOTIX HUB Video Wall (usage)

After configuring MOBOTIX HUB Video Wall, you can start working with it in MOBOTIX HUB Desk Client. The system administrator defines the monitors that the video wall consists of, the layout and size of the monitors, and possibly also what cameras are displayed on the monitors.

Using MOBOTIX HUB Video Wall is basically about the following:

- Start your video wall by opening the Video Wall monitors in different displays or floating windows. Then drag the floating windows onto the physical monitors. See also [View Video Wall content on page 43](#)
- Push cameras and other types of content to the video wall and share it with the other operators who are using the video wall.
- When content on a monitor is changed, you may need to reset the Video Wall monitor back to its default state. You do this by reactivating the default [Video Wall preset](#)¹. See also [Reset Video Wall monitor after removing content on page 55](#)



You can also change the view layout of the Video Wall monitors, for example if you need to add more cameras. See also [Change view layout of Video Wall monitors on page 34](#).

View Video Wall content

You can view both live and recorded video on your video wall depending on the tab that you are currently on. If your video wall is not already up and running, you start the video wall by sending the Video Wall monitors to your computer displays or to new floating windows. You can then drag the floating windows onto the physical monitors that are connected to the computer that drives the video wall. See also [Video Wall display options on page 45](#).



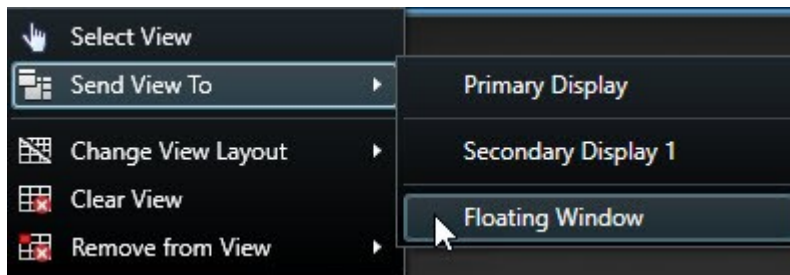
- To change or control what is displayed on a video wall, you must use the Video Wall control. See also [Video Wall control \(explained\) on page 44](#)
- User rights can prevent cameras from displaying video on your video wall

Steps:

1. In the **Views** pane, expand **Video Wall**.
2. Expand your preferred Video Wall definition.
3. To view Video Wall content in the main view, select the monitors one at a time.

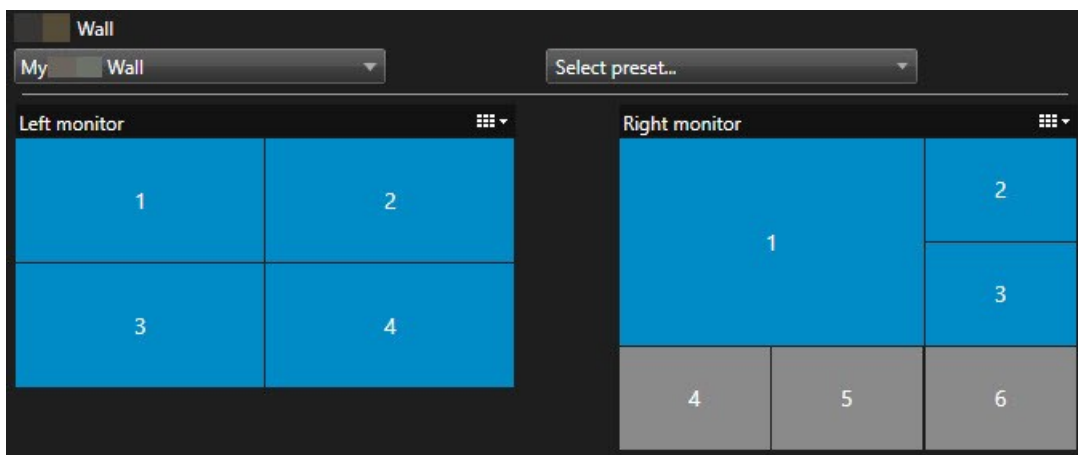
¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

4. To view Video Wall content in any of your displays or in a new floating window:
 1. Right-click the monitors, one at a time.
 2. Click **Send view to** and select one of these options:
 - **Primary display** - opens in full screen mode in your current display
 - **Secondary display** - opens in full screen mode in your secondary display if any
 - **Floating window** - opens in a new floating window



Video Wall control (explained)

The Video Wall control is a virtual representation of the video wall showing one Video Wall definition at a time and the Video Wall monitors that it consists of. The control allows operators to push cameras and other types of content onto the video wall.



The Video Wall control in the image above displays a Video Wall definition with two monitors:

- **Left monitor** has a **2x2** layout
- **Right monitor** has a **1+5** layout

Blue items in the Video Wall control are currently displaying content. Gray items are empty.

How does it work? Some elements you can drag directly onto the Video Wall monitors in the Video Wall control, or to specific view items within a Video Wall monitor. Other elements you need to send to a video wall, for example images. .

Examples

Example 1: Suppose you have a view containing the Video Wall control and the **Alarm List**. An alarm goes off, and immediately you drag the alarm from the list onto any view item within Monitor 1. Operators who are looking at the video wall will now see the alarm on Monitor 1.

Example 2: Suppose you have a view containing the Video Wall control and your smart map. You select four cameras on the smart map and drag them onto Monitor 2, which has a 2x3 view layout. Operators who are looking at their video wall will now see those four cameras in the first four view items of Monitor 2.

If your organization has multiple video walls, you can select the video wall you need in the **Video Wall** list.

The **Select preset** list allows you to select and activate preconfigured Video Wall [presets](#)¹.

Identify the type of content that a view item is displaying

- Hover the cursor over a view item. The number of the view item changes to an icon that indicates the type of content. For example, a camera would indicate that the view item is showing video
- Click a view item to preview the content. The toolbar in the **Preview** window provides options for printing the content, or sending it to another video wall

Video Wall display options

The following table describes ways to view Video Wall content in a separate window or secondary display.

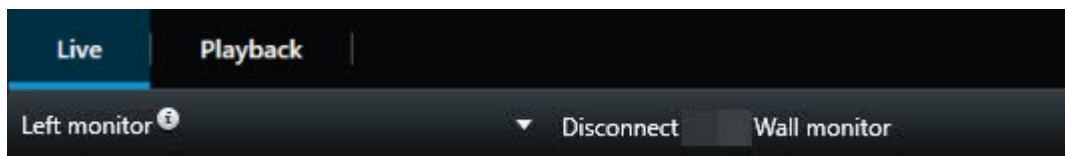
Option	Description
Primary display	View content in full screen mode on the display that you are currently viewing. MOBOTIX HUB Desk Client remains open behind the Video Wall content.
Secondary display	View content on another display and continue to view existing content on the current display.
Floating window	View content in a new floating window. This is useful, for example, if your video wall consists of multiple monitors.

Disconnect Video Wall monitors

You can disconnect your Video Wall monitors, so that you can work with the video without interfering with what other operators are viewing on the video wall.

¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

1. On the computer that is driving the video wall, go to the Video Wall monitor that you want to disconnect.
2. Click **Disconnect Video Wall monitor**.



Changes you make are reverted when you reconnect.

Displaying content on video walls

Your video wall may be preconfigured to display video from certain cameras. However, you can use the Video Wall control to push cameras and other types of content to the video wall, for example [alarms](#)¹, [hotspots](#)², images, and the [smart map](#)³.

Depending on the situation and the environment, you can combine different types of content to improve response times and effectiveness. For example, if you want to display a picture of a suspect so that people on patrol know who to look for, you can add an image. If you want to provide guidance for response measures, you can add text.

What can you display?

- Alarms
- Bookmarks
- Cameras or whole views
- Carousels
- Images and [snapshots](#)⁴
- Hotspots
- HTML pages
- Maps
- Smart map
- Text

¹Incident defined on surveillance system to trigger an alarm in MOBOTIX HUB Desk Client. If your organization uses the feature, triggered alarms are displayed in views that contain alarm lists or maps.

²A particular position for viewing magnified and/or high quality camera images in MOBOTIX HUB Desk Client views.

³A map functionality that uses a geographic information system to visualize devices (for example, cameras and microphones), structures, and topographical elements of a surveillance system in geographically accurate, real-world imagery. Maps that use elements of this functionality are called smart maps.

⁴An instant capture of a frame of video at a given time.

Operation

Most of these elements, you must add to the video wall through the toolbar of the view item.



Display or change cameras on video walls

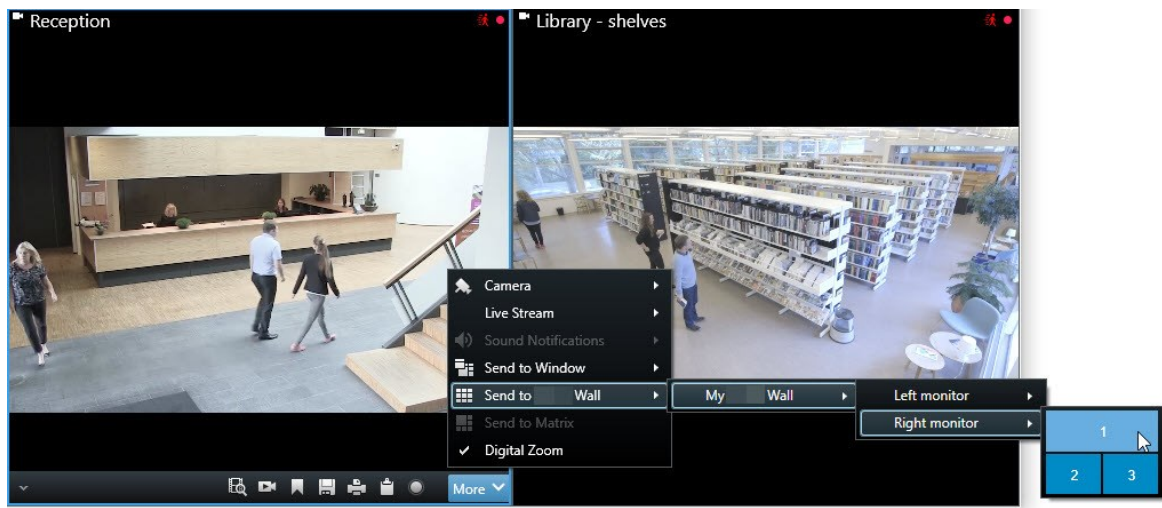
You can change the cameras that are being displayed on the video wall. Immediately, other [operators](#)¹ who are watching the same video wall will see the changes.

Requirements:

You have set up a view that contains your Video Wall control. See also [Add Video Wall controls to views on page 33](#)

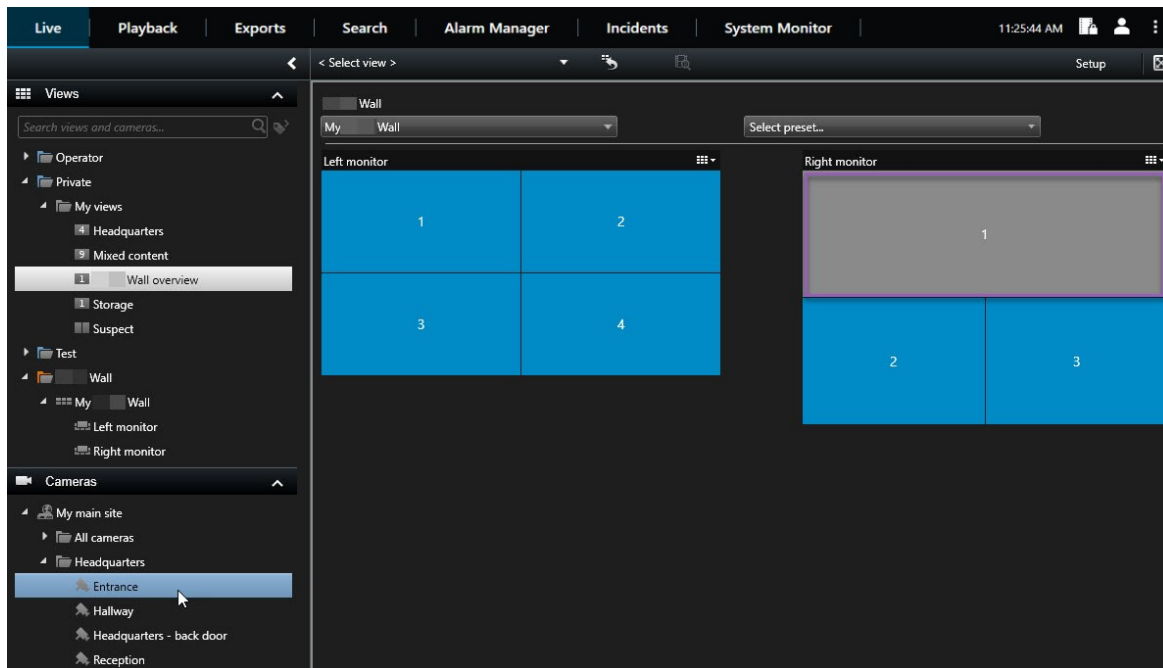
Steps:

1. Make sure that your video wall is running. See also [View Video Wall content on page 43](#).
2. Go to the **Live** or **Playback** tab.
3. To add a camera from a view:
 1. Open the view that contains the camera that you want to add.
 2. In the camera view item, click **More > Send to Video Wall**. Then select the Video Wall definition, the Video Wall monitor, and finally the view item.

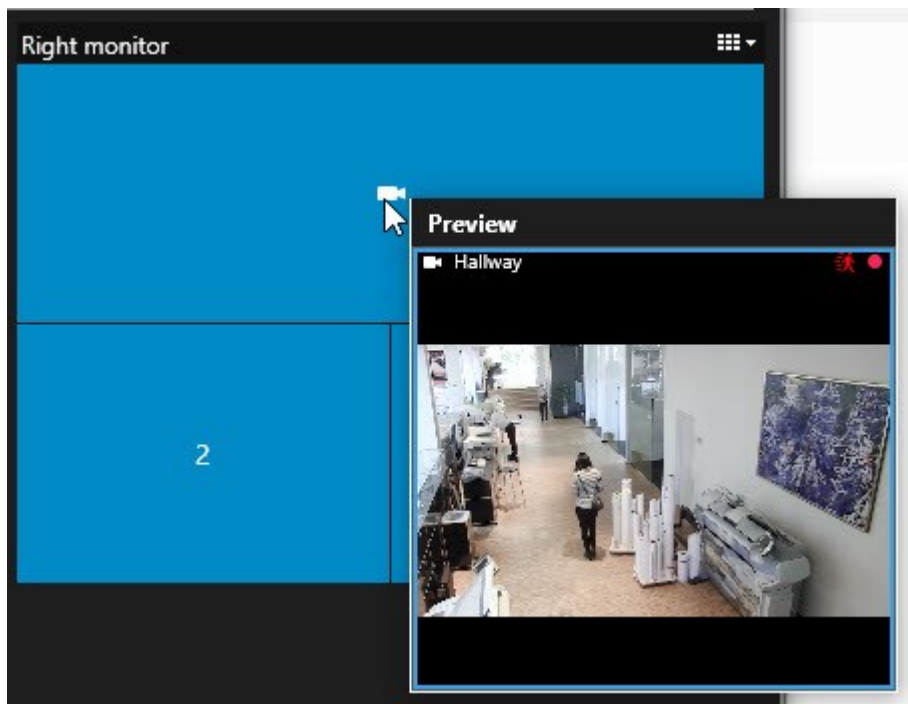


¹A professional user of an MOBOTIX HUB client application.

4. To add a camera from the **Cameras** pane:
 1. Open a view that contains the Video Wall control.
 2. In the **Cameras** pane, find the camera that you want to add.
 3. Drag the camera to a view item in the Video Wall control.



4. To verify that you added the correct camera, check the video wall or click the camera icon in the Video Wall control. A preview appears.



Operation

Add entire views to video walls

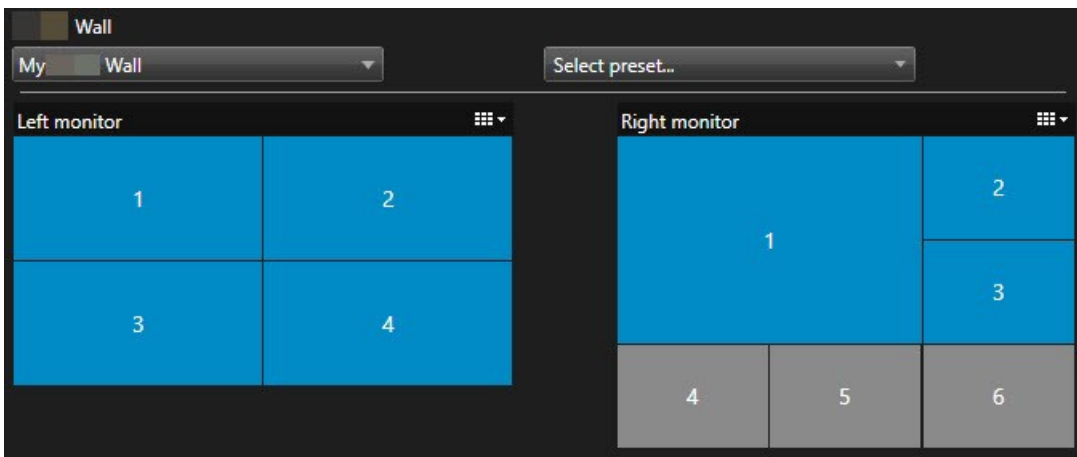
You can share an entire view with other Video Wall operators by sending the view to a Video Wall monitor. What is currently being displayed on that monitor is then replaced by the content of the view.

Requirements:

You have set up a view that contains your Video Wall control. See also [Add Video Wall controls to views on page 33](#).

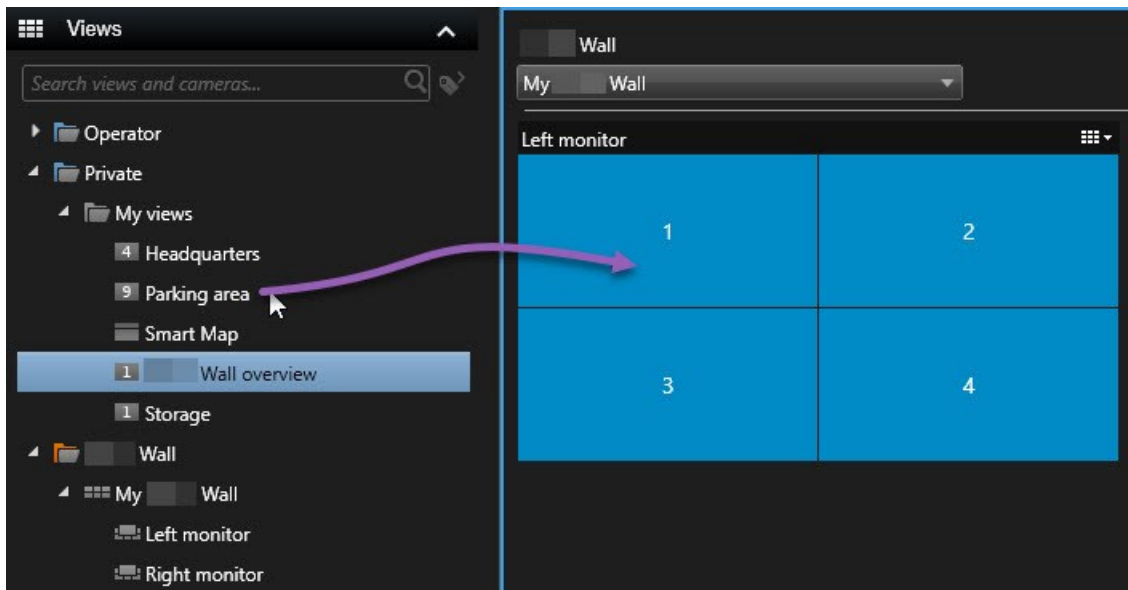
Steps:

1. Make sure that your video wall is running. See also [View Video Wall content on page 43](#).
2. Go to the **Live** or **Playback** tab and open the view that contains your Video Wall control.



MOBOTIX recommends that you open the Video Wall control in a new floating window.

3. In the **Views** pane, find the view that you want to send to the video wall.
4. Drag the view into a view item in the preferred Video Wall monitor and then release.



Display text on video walls

Displaying text on your video wall is useful when you want to provide information to operators who are using the video wall.

Requirements

- To send text from an existing view, first you must add the text to a view.
- To add text using drag-and-drop, make sure that your text editor supports drag-and-drop operations

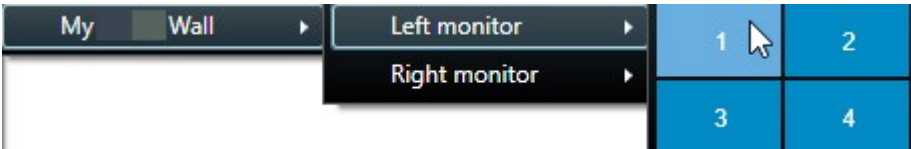
Steps:

1. To add text from a third-party text editor:
 1. Open the view that contains your Video Wall control.
 2. Write the text in your preferred text editor.
 3. Select the text.
 4. Drag and drop the text into a view item in a Video Wall monitor.
 5. In the window that appears, you can edit the text even further. Click **Save**.
 6. Immediately after, the text appears on the associated display or physical monitor.

- 2. To add text that has already been added to a view:
 - 1. Open the view that contains the text.
 - 2. Hover over the view item. The camera toolbar appears.



- 3. Click **More > Send to Video Wall** and then select the preferred video wall.
- 4. Select the Video Wall monitor and finally the view item inside the monitor.

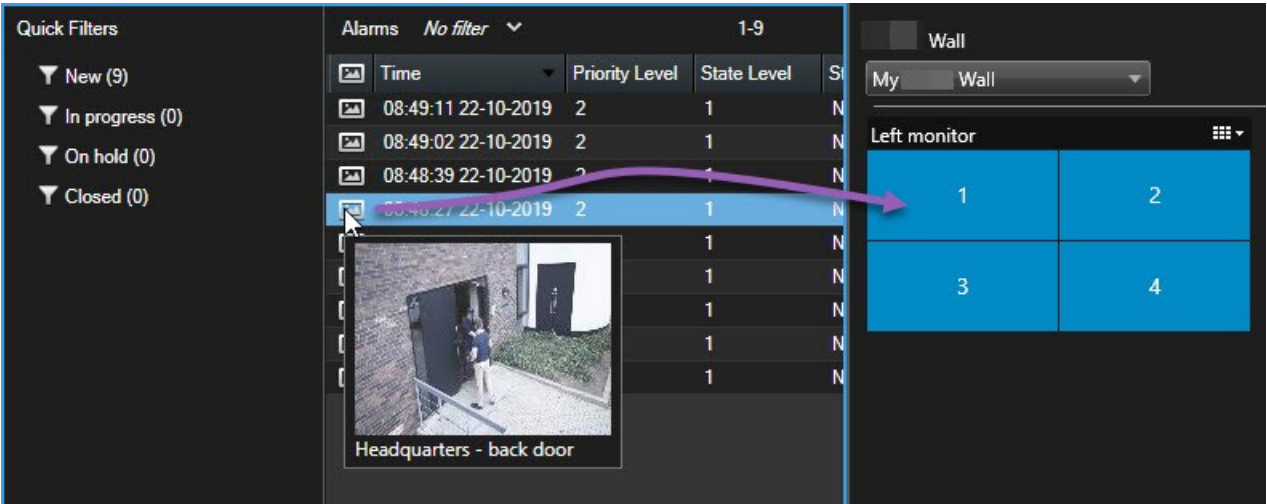


Immediately after, the text appears on the associated display or physical monitor.

Display alarms on video walls

You can share a prioritized overview of all alarms by adding the **Alarm List** to a video wall. This allows you to view and work with details about the alarm directly from the video wall.

You can also display individual alarms on your video wall by dragging and dropping the alarm from the **Alarm List**.



Display bookmarks on video walls

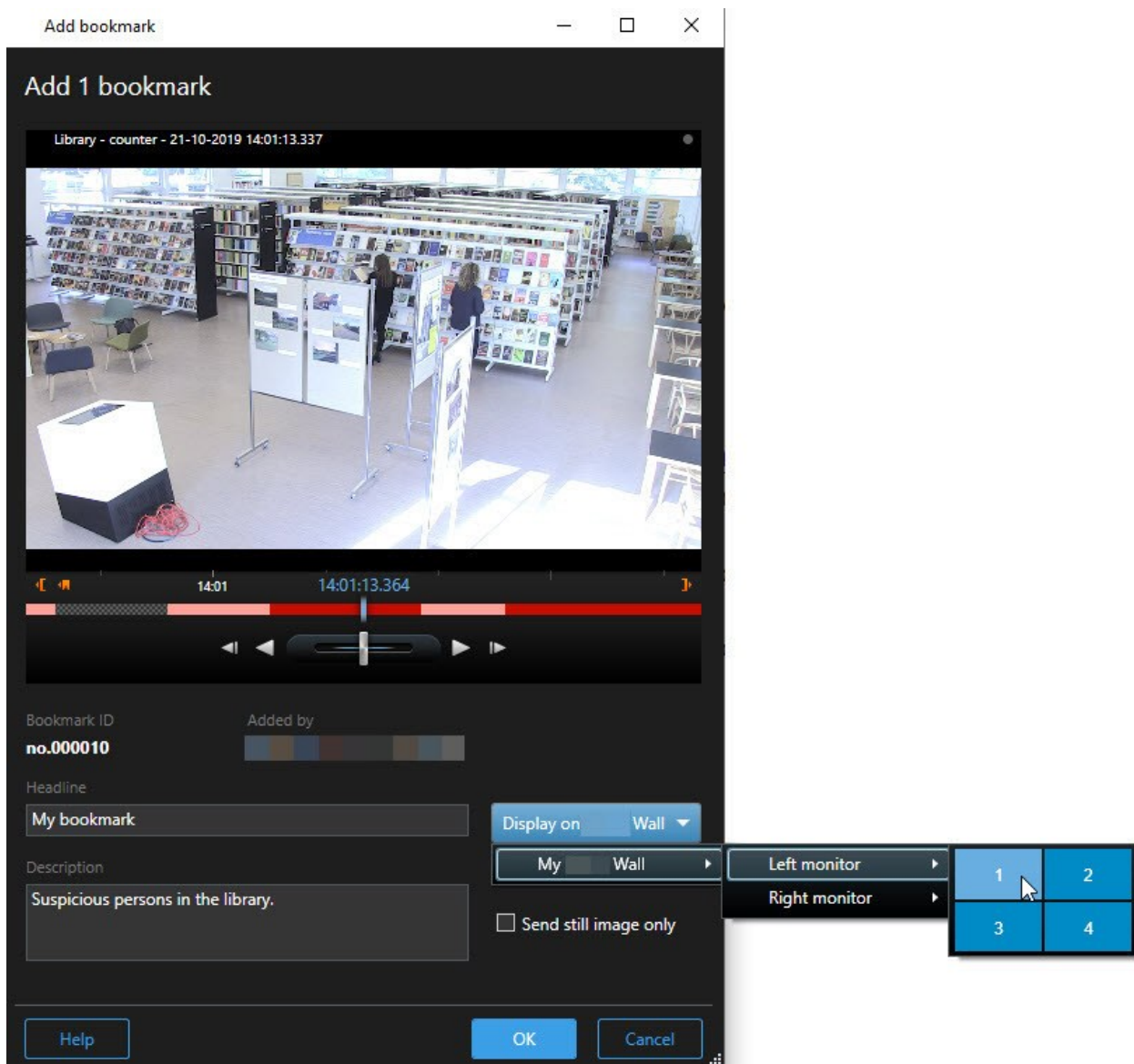
Sending a [bookmark](#)¹ to a video wall can help you quickly share a still image or a video sequence of an incident, for example a suspicious person, with operators who are watching the video wall.

Steps:

¹An important point in a video recording, marked and optionally annotated so that you and your colleagues will easily be able to find it later.

Operation

1. Create a bookmark.
2. In the window that appears, click **Display on Video Wall** and select the preferred video wall.



3. Select a Video Wall monitor and then a view item within the monitor.
4. To send a still image instead of the video sequence, select the **Send still image only** check box.
5. Click **OK** to save your changes. The bookmarked video sequence appears on the associated physical monitor.

MOBOTIX HUB Video Wall and smart map (explained)

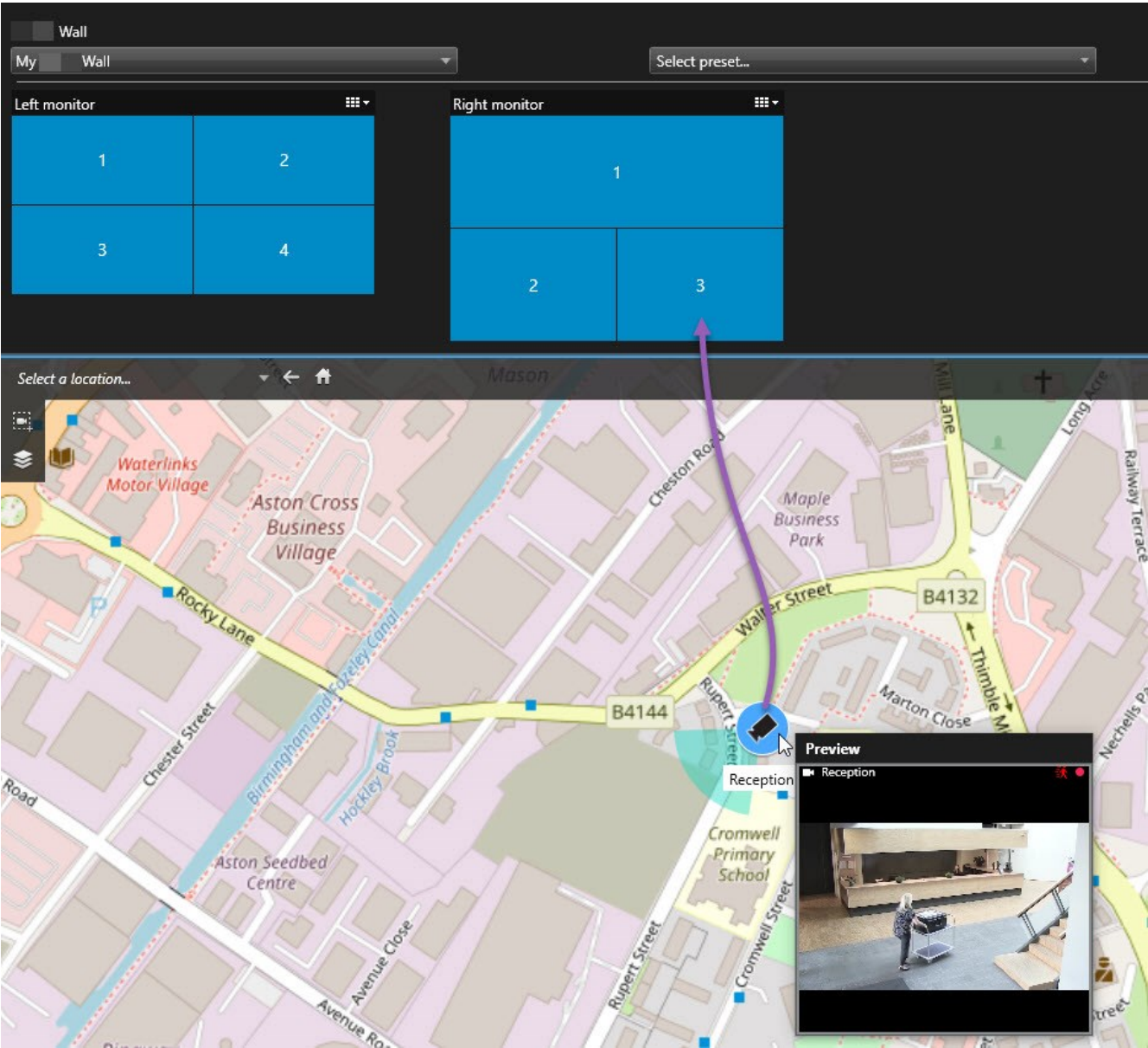
If you are using MOBOTIX HUB Video Wall, you can view the [smart map](#)¹ on your video wall and share it with other operators who are using the same video wall. The current zoom level, the location that you have navigated to, and the layers that are visible are maintained when sent to a video wall.

Drag cameras from maps or smart maps to video walls

If a particular camera on your map or [smart map](#)² recorded an incident, and you want to share the video from that camera, you can drag the camera from the map to the monitors of your video wall.

¹A map functionality that uses a geographic information system to visualize devices (for example, cameras and microphones), structures, and topographical elements of a surveillance system in geographically accurate, real-world imagery. Maps that use elements of this functionality are called smart maps.

²A map functionality that uses a geographic information system to visualize devices (for example, cameras and microphones), structures, and topographical elements of a surveillance system in geographically accurate, real-world imagery. Maps that use elements of this functionality are called smart maps.



You can also drag cameras from maps in floating windows and secondary displays.

Stop displaying content on the video wall

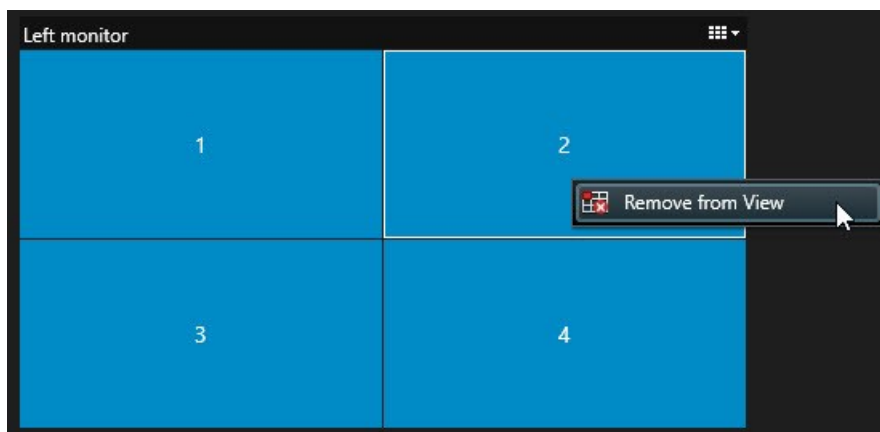
You can stop displaying content on a video wall, for example when an incident is under control or the content is no longer relevant.

Stop displaying all content on a Video Wall monitor

1. In your Video Wall control, go to the monitor that you want to clear.
2. Click the  icon.
3. Select **Clear view**. On the Video Wall control, the view items turn gray, and all content is removed from the Video Wall display.

Remove specific content from a Video Wall monitor

1. In your Video Wall control, go to the monitor that you want to remove specific content from.
2. Right-click the item that you want to clear and select **Remove from view**.



The item turns gray, and the content is removed from the associated view item in the Video Wall display.



Other [operators](#)¹ can manually change the content on a Video Wall, and the content can change according to a schedule or rules. This means that the content that you remove can reappear later.

Reset Video Wall monitor after removing content

If you have removed content from a monitor, you can make it reappear by re-applying the [Video Wall preset](#)² that is associated with the monitor. See also [Reset or change Video Wall presets on page 36](#).

¹A professional user of an MOBOTIX HUB client application.

²A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

Troubleshooting

MOBOTIX HUB Video Wall (troubleshooting)

My monitors do not display the layout that I specified for my Video Wall

Typically, this occurs because your system administrator did not activate the [preset](#)¹ for the monitor. Ask your system administrator to verify that the preset is active in Management Client.

My camera is not part of a [preset](#)². Why isn't it removed when I activate the preset?

This can be because the **Empty preset item** setting is not selected for the preset. Ask your system administrator to verify the setting for the preset in Management Client.

I cannot drag an item, for example a camera, to a view. When I click the item, nothing happens

This is a known issue in Microsoft Windows that can also occur in MOBOTIX HUB Video Wall. The workaround is press ESC one time, and the drag functionality should work again.

When I drag an image from a view to my Video Wall, it isn't displayed.

You probably did not embed the image in the view, and the computer that is running the Video Wall cannot access the image file. To ensure that everyone can see an image, it's a good idea to embed it in the view.

My Video Wall monitors are displayed on top of each other

When your system administrator added monitors to your Video Wall, he or she did not define the layout of the monitors. When your administrator adds monitors, the system automatically stacks them in the layout in the order in which they were added. Your administrator must then arrange them according to your needs.

I cannot drag an image from Windows Explorer to my Video Wall monitor. The cursor does not change to the Allow Drop icon

This occurs when your Desk Client is not running under the same user profile as Windows Explorer. For example, you are running Desk Client under the Local administrator user profile, but you are running Windows Explorer as a Standard user. To resolve this issue, ensure that both programs are running under the same user profile.

I have added the Alarm List to a view item, but I cannot use the scroll bar to view details

This is a known issue in MOBOTIX HUB Video Wall. To use the scroll bar, position the pointer outside the view item, and then press and hold the CTRL key. This prevents the view item's toolbar from covering the scroll bar. You can now move the pointer into the view item and use the scroll bar.

¹A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

²A predefined layout for one or more Video Wall monitors in MOBOTIX HUB Desk Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

