

SIEMENS



SISTORE MX SISTORE RemoteView Application Software – Configuration Mode

Configuration Manual

V2.80

Building Technologies

Fire Safety & Security Products

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1 Safety

1.1 Target readers

The instructions in this document are designed for the following target readers:

Target readers	Qualification	Activity	Condition of the product
Operational startup personnel	Technical training for electrical installations. Training on the product is recommended.	Puts the product into operation for the first time, or changes the existing configuration.	The product is installed but not yet configured, or the existing configuration is to be changed.

1.2 Work safety information

- Read the general safety precautions before configuring the device.
- Please also read the safety precautions for the devices that are operated by the software. Further information on this can be found in the Installation Manual.
- Keep this document for later reference.
- Always pass this document on together with the product.

1.2.1 Handling

Damage due to improper handling

- Protect the CD from scratching.
- To clean the CD use a soft dry cloth.

Damage during transport

- Always transport the CD in the case it originally came in.

1.2.2 Operational setup

Dangerous situation due to false alarm

- Make sure to notify all relevant parties and authorities providing assistance before testing the system.
- To avoid panic, always inform all those present before testing any alarm devices.

1.2.3 Installation

Data loss after software update

- Make sure to backup all data before updating the software.

Malfunctioning caused by unauthorized software on the SISTORE unit

- Install only software products on the SISTORE that have been approved by the manufacturer.

1.2.4 Storage

Damage due to improper storage

- Always store the CD in its protective case.
- Keep the CD in an environment with a relative humidity of 10 – 90 %.
- Keep the CD between -5 and +55 °C.
- Do not store the CD in dusty places.
- Do not keep the CD close to sources of magnetic radiation.
- Protect the CD from moisture.
- Protect the CD from direct sunlight.

1.2.5 Service and maintenance

- Do not attempt to service or modify the device yourself. Refer this work to qualified service personnel.
- Always disconnect the power cable and other cables from the main power supply before performing maintenance.

1.3 Meaning of the written warning notices

The severity of a hazard is indicated by the following written warning notices.

Signal word	Type of risk
CAUTION	There is a risk of minor to medium injuries or damage to property.
IMPORTANT	Malfunctioning may result

1.4 Meaning of the hazard symbols

The nature of the hazard is indicated by icons.



Warning of a hazard



Warning of dangerous electrical voltage

2 Technical data

2.1 SISTORE MX / MX DVD

	SISTORE MX 3204 with 4 video inputs	SISTORE MX 3208 - 3232 with 8, 16 or 32 video inputs
Recording speed	Max. 50 ips, configurable for analogue cameras Max. 100 ips, configurable for max. 32 LAN cameras	Max. 100 ips, configurable for analogue cameras Max. 100 ips, configurable for max. 32 LAN cameras
Video inputs	4 x CCVS (BNC sockets), 1 Vpp/75 Ohm, max. 32 LAN camera	8/16/32 x CCVS (BNC sockets), 1 Vpp/75 Ohm, max. 32 LAN camera
Video outputs	1 x VGA, 2 x CCVS (BNC sockets)	1 x VGA, 4 x CCVS (BNC sockets)
Trigger inputs	16 U _{in} : 5 – 24 V, max. 10 mA	32 U _{in} : 5 – 24 V, max. 10 mA
Event control	Event-triggered recording of individual cameras or camera groups with configurable time-slot pattern. Events: Alarm contact, motion detection, time control, TCP/IP command	
Alarm signalling	Via monitor connection, digital output, LAN/WAN to RemoteView station, acoustic signal, e-mail, SMS	
Digital inputs	4 for AND operations and system control functions U _{in} : 5 – 24 V, max. 10 mA	8 for AND operations and system control functions U _{in} : 5 – 24 V, max. 10 mA
Digital outputs	8 switch/key outputs, configurable switching (rising or falling edge duration) U: 5 – 24 V, max. 50 mA	16 switch/key outputs, configurable switching (rising or falling edge duration) U: 5 – 24 V, max. 50 mA
Interfaces	2x RS485, 1 x LAN, 4 x USB 2.0 (0.5 A), 1 x SCSI, 1 x VGA, 1 x Audio in, 1 x Mic in, 1 x Audio out, optionally: S ₀ interface for ISDN	
Mouse, keyboard	Mouse with USB connection, virtual keyboard (optional)	
Video standard	PAL/NTSC	
Analog resolution	Standard: 352 x 288 pixels High resolution: 704 x 288 pixels	
Compression	M-JPEG, configurable: variable between 10 and 80 KB	
Text overlay in the video image	Max. 16 characters	
Font and background colours	Freely selectable	
Storage media	Basic unit (E)IDE	
Memory capacity	250/500/750/1000 GB data memory	
External storage media	Via network connection	
Display resolution	1024 x 768, 1280 x 1024	
Playback	Individual images, video sequence (replay rate configurable between 0.1 to 50 times), forward/backward, pause (frozen image)	
Image search	By means of date, time, camera number, recording event, graphic activity search, logbook, Smartsearch	
Video display formats	1x1, 2x2, 1 + 5, 3x3, 2 + 8, 4 + 9, 4x4, 6x6 - 4 (32), 7x7 - 1 (48), 8x8 - (64)	
System self-monitoring function	Hardware/software watchdog	
Power supply	100 – 230 V AC, 50 – 60 Hz, approx. 120 W	
Power input	Appliance inlet	

SISTORE MX 3204 with 4 video inputs		SISTORE MX 3208 - 3232 with 8, 16 or 32 video inputs	
Temperature range (operation)	5 – 35 °C		
Design	Embedded		
Environmental temperature	5 – 45 °C		
Rel. humidity	20 – 80 % without condensation		
Dimensions (W x H x D)	430 x 87 x 370 mm		
Video compression			
Colour resolution	Video recording always takes place in YUV 4:2:2 true colour format. The VGA board must be set to 16-bit mode (Hi-Color). Video compression is made in JPEG format.		
Video input	4/8/16 external composite inputs, YC signals are not supported.	8/16/24/32 external composite inputs, YC signals are not supported.	
Video output	2 outputs: CVBS, YC signals are not supported.	4 outputs: CVBS, YC signals are not supported.	
Video standard	PAL, NTSC		
Video scanning frequency	PAL: 13.5 MHz NTSC: 13.5 MHz		
A/D conversion	PAL: 1/100 s (20 ms) per field NTSC: 1/120 s (16.7 ms) per field		
Geometric resolution	PAL: 704 x 576 pixels with 2 fields NTSC: 704 x 480 pixels with 2 fields		
Optocoupler			
Trigger and signal inputs			
Number of trigger and signal inputs	16		32
Trigger edge	Positive or negative		
Triggering of interrupts	Yes		
Voltage range	5 – 24 V DC		
Input current	12 mA (typ.), protected against polarity reversal		
Electrical isolation	Up to 2500 V		
Digital inputs			
Number of digital inputs	4		8
Triggering of interrupts	No		
Voltage range	5 – 24 V DC		
Input current	12 mA (typ.), protected against polarity reversal		
Electrical isolation	Up to 2500 V		
Digital outputs			
Number of digital outputs	8		16
Output current	50 mA (max.), reversible fuse		
Electrical isolation	Up to 2500 V		



SISTORE MX systems are configured for DHCP by default.

If there is no DHCP server in the network, select the menu sequence **Administration> Configuration**, then click the button **TCP/IP parameters** in the **Network** tab and enter a permanent IP address instead of DHCP. Otherwise there may be quite a long waiting time as the system will wait for a reply from the non-existent DHCP server.

2.2 SISTORE MX 3G / MX 3G DVD

SISTORE MX 3G	
Recording speed	Max. 400 ips, configurable for 16 analog cameras (max. 25 ips / camera) Max. 100 ips, configurable for max. 16 LAN cameras
Video inputs	8/16 x CCVS (BNC sockets), 1 Vpp / 75 Ohm, max. 16 LAN cameras
Video outputs	4 x CCVS (BNC sockets)
Alarm inputs	16, U: 5 V
Event control	Event-triggered recording of individual cameras or camera groups with configurable time-slot pattern. Events: Alarm contact, motion detection, time control, TCP/IP command, SMTP, HTTP
Alarm signalling	Via monitor connection, digital output, LAN/WAN to RemoteView station, acoustic signal, e-mail, SMS
Digital inputs	4 for AND operations and system control functions
Digital outputs	4 alarm outputs, configurable switching (rising or falling edge duration) U: 24 V, max. 50 mA
Interfaces	2x RS485, 2 x LAN, 6 x USB 2.0 (0.5 A), 1 x DVI-I, 1 x DVI-D, 16 x Audio in, 4 x audio out
Mouse, keyboard	Mouse with USB connection, virtual keyboard (optional)
Video standard	PAL
Analog resolution	CIF: 352 x 288 pixels 2CIF: 704 x 288 pixels 4CIF: 704 x 576 pixels
Digital resolution (LAN cameras)	Max. 5 megapixels (depending on the camera type)
Compression	M-JPEG, configurable: variable between 10 and 160 KB
Text overlay in the video image	Max. 16 characters
Font and background colours	Freely selectable
Internal storage media	Max.: 4 SATA hard disks (1 TB max. each)
Memory capacity	SISTORE MX 3G: 1000 – 4000 GB data memory SISTORE MX 3G DVD: 1000 – 3000 GB data memory
External storage media	Via network connection
Display resolution	1024 x 768, 1280 x 1024, 1920 x 1200
Screen format	4:3, 16:10
Playback	Individual images, video sequence (replay rate configurable between 0.1 to 50 times), forward/backward, pause (frozen image)
Image search	By means of date, time, camera number, recording event, graphic activity search, logbook, Smartsearch
Video display formats	1x1, 2x2, 1 + 5, 3x3, 2 + 8, 4 + 9, 4x4, 6x6 - 4 (32), 7x7 - 1 (48), 8x8 - (64)
System self-monitoring function	Hardware/software watchdog
Power supply	110 – 240 V AC, 50 – 60 Hz, 4 – 2 A
Power input	Appliance inlet
Environmental temperature	Operation: 5 – 40 °C Storage: -20 to +70 °C
Rel. humidity	20 – 80 % without condensation
Design	Embedded
Dimensions (W x H x D)	430 x 87 x 440 mm

SISTORE MX 3G

Video compression

Colour resolution	Video recording always takes place in YUV 4:2:2 true colour format. The VGA board must be set to 16-bit mode (Hi-Color). Video compression is made in JPEG format.
Video input	16 external composite inputs, YC signals are not supported.
Video output	4 outputs: CVBS, YC signals are not supported.
Video standard	PAL, (NTSC)
Video scanning frequency	PAL 13.5 MHz, (NTSC: 13.5 MHz)
A/D conversion	PAL 1/100 s (20 ms) per field, (NTSC: 1/120 s (16.7 ms) per field)
Geometric resolution	PAL: 704 x 576 pixels with 2 fields (NTSC: 704 x 480 pixels with 2 fields)

Optocoupler

Trigger and signal inputs	
Number of trigger and signal inputs	16
Trigger edge	Positive or negative
Triggering of interrupts	Yes
Switching voltage	5 V $\pm$ 10 %
Switching current	Max. 5 mA
Digital inputs	
Number of digital inputs	4
Triggering of interrupts	No
Digital outputs	
Number of digital outputs	4
Output current	50 mA (max.), reversible fuse
Electrical isolation	Up to 2500 V



SISTORE MX systems are configured for DHCP by default.

If there is no DHCP server in the network, select the menu sequence **Administration>**

Configuration, then click the button **TCP/IP parameters** in the **Network** tab and enter a permanent IP address instead of DHCP. Otherwise there may be quite a long waiting time as the system will wait for a reply from the non-existent DHCP server.

3 Details for ordering

3.1 SISTORE MX / MX DVD

Further products and accessories can be found in the Internet:

www.buildingtechnologies.siemens.com > **Products & Systems > Electronic Security > Catalogue Downloads.**

Type	Order No.	Designation	Weight*
Without DVD			
SISTORE MX 3208 250/200	S24245-F5085-A2	Hybrid recorder, 8 analog cameras, 32 LAN cameras, 250 GB, 100 ips analog, 100 ips digital	approx. 11.0 kg
SISTORE MX 3216 500/200	S24245-F5085-A4	Hybrid recorder, 16 analog cameras, 32 LAN cameras, 500 GB, 100 ips analog, 100 ips digital	approx. 11.0 kg
SISTORE MX 3232 1000/200	S24245-F5085-A6	Hybrid recorder, 32 analog cameras, 32 LAN cameras, 1000 GB, 100 ips analog, 100 ips digital	approx. 11.0 kg
With DVD			
SISTORE MX 3204 250/150 DVD	S24245-F5085-A1	Hybrid recorder, 4 analog cameras, 32 LAN cameras, 250 GB, 50 ips analog, 100 ips digital, with DVD	approx. 11.0 kg
SISTORE MX 3208 250/200 DVD	S24245-F5085-A3	Hybrid recorder, 8 analog cameras, 32 LAN cameras, 250 GB, 100 ips analog, 100 ips digital, with DVD	approx. 11.0 kg
SISTORE MX 3216 500/200 DVD	S24245-F5085-A5	Hybrid recorder, 16 analog cameras, 32 LAN cameras, 500 GB, 100 ips analog, 100 ips digital, with DVD	approx. 11.0 kg
SISTORE MX 3232 1000/200 DVD	S24245-F5085-A7	Hybrid recorder, 32 analog cameras, 32 LAN cameras, 1000 GB, 100 ips analog, 100 ips digital, with DVD	approx. 11.0 kg

* Unit incl. packing material, accessories that are included in the delivery, and documentation

All SISTORE MX models have enabled video output and SCSI functions and are delivered without keyboard.



The part number (PN) of your SISTORE unit will be found on the rating plate on the bottom of the unit.

Accessories (not included in the delivery)

Type	Order No.	Designation	Weight
Activation of 4 SISTORE MX video inputs	S24245-P5097-A4	Enables an additional 4 analog video inputs	./.
Activation of 8 SISTORE MX video inputs	S24245-P5097-A1	Enables an additional 8 analog video inputs	./.
19" installation kit for SISTORE MX/CX	C24245-A12-D2	Mounting equipment for installation in a 19" rack	4.0 kg
MX multichannel box (GAA/ATM)	S24245-F5092-A1	For connection of cash dispensers, cash box or access control systems	1.2 kg
SISTORE MX hard drive expansion kit 250 GByte	2GF4811-8CD	For the expansion of SISTORE MX as of V2.50	0.8 kg
SISTORE MX hard drive expansion kit 500 GByte	S24245-B5093-A1	For the expansion of SISTORE MX as of V2.50	0.8 kg
SISTORE RAID8 2000	S24245-B5108-A1	2 TB RAID system	34.8 kg
SISTORE RAID8 3000	S24245-B5108-A2	3 TB RAID system	38.4 kg
USBOBT08	2GF4811-8CH	USB input module - 8 channels with optocoupler function	./.
USBREL8	2GF4811-8CG	USB output module - 8 channels with relay function	./.
USBOPTOREL16	2GF4811-8CJ	USB input and output modules with 16 optocoupler inputs and 16 relay outputs	./.
USB ISDN module	2GF4811-8FC	For use on the SISTORE MX	0.8 kg
SISTORE MX USB mouse	A5Q00009353	As a replacement device	
SISTORE MX USB keyboard	A5Q00009346	For SISTORE MX without keyboard	
External USB DVD burner	GBQ:S80817	For SISTORE MX without internal DVD burner	
CMTC1525 TFT monitor	2GF3124-8AA	15-inch TFT colour monitor for CCTV	6.0 kg
CMTC1725 TFT monitor	2GF3125-8AA	17-inch TFT colour monitor for CCTV	6.5 kg
CMTC1925 TFT monitor	2GF3126-8AA	19-inch TFT colour monitor for CCTV	7.0 kg
Interface converter RS232C/RS485	2GF5505-8AH	Interface converter RS232C/RS485	0.1 kg
Converter model 4855DSR	./.	From roline (please order directly from the manufacturer)	./.
Converter model USB/RS232	./.	From roline (please order directly from the manufacturer)	./.
KeBin access reader	./.	From KEBA (please order directly from the manufacturer)	./.
Miniter access reader	./.	From STM GmbH (please order directly from the manufacturer)	./.
Multimedia Control Panel (ShuttlePRO2)	./.	From Contour Design Ltd. (please order directly from the manufacturer)	./.

3.2 SISTORE MX 3G / MX 3G DVD

Further products and accessories can be found in the Internet:

www.buildingtechnologies.siemens.com > **Products & Systems > Electronic Security > Catalogue Downloads.**

Type	Order No.	Designation	Weight*
Without DVD			
SISTORE MX1608	S54569-C201-A3	SISTORE MX1608 HVR, 1000 GB, 300 ips	approx. 11.7 kg
SISTORE MX1616	S54569-C202-A3	SISTORE MX1616 HVR, 1000 GB, 500 ips	approx. 11.7 kg
With DVD			
SISTORE MX1608 DVD	S54569-C201-B3	SISTORE MX1608 HVR, DVD, 1000 GB, 300 ips	approx. 11.7 kg
SISTORE MX1616 DVD	S54569-C202-B3	SISTORE MX1616 HVR, DVD, 1000 GB, 400 ips	approx. 11.7 kg

* Unit incl. packing material, accessories that are included in the delivery, and documentation

All SISTORE MX models have enabled video output functions and are delivered without keyboard.



The part number (PN) of your SISTORE unit will be found on the rating plate on the bottom of the unit.

Accessories (not included in the delivery)

Type	Order No.	Designation	Weight
19" installation kit for SISTORE MX/CX	C24245-A12-D2	Mounting equipment for installation in a 19" rack	4.0 kg
MX multichannel box (GAA/ATM)	S24245-F5092-A1	For connection of cash dispensers, cash box or access control systems	1.2 kg
USBOBTO8	2GF4811-8CH	USB input module - 8 channels with optocoupler function	./.
USBREL8	2GF4811-8CG	USB output module - 8 channels with relay function	./.
USBOPTOREL16	2GF4811-8CJ	USB input and output modules with 16 optocoupler inputs and 16 relay outputs	./.
USB ISDN module	2GF4811-8FC	For use on the SISTORE MX	0.8 kg
SISTORE MX USB mouse	A5Q00009353	As a replacement device	
SISTORE MX USB keyboard	A5Q00009346	For SISTORE MX without keyboard	
External USB DVD burner	GBQ:S80817	For SISTORE MX without internal DVD burner	
CMTC1525 TFT monitor	2GF3124-8AA	15-inch TFT colour monitor for CCTV	6.0 kg
CMTC1725 TFT monitor	2GF3125-8AA	17-inch TFT colour monitor for CCTV	6.5 kg

Details for ordering

Type	Order No.	Designation	Weight
CMTC1925 TFT monitor	2GF3126-8AA	19-inch TFT colour monitor for CCTV	7.0 kg
Interface converter RS232C/RS485	2GF5505-8AH	Interface converter RS232C/RS485	0.1 kg
Converter model 4855DSR	./.	From roline (please order directly from the manufacturer)	./.
Converter model USB/RS232	./.	From roline (please order directly from the manufacturer)	./.
KeBin access reader	./.	From KEBA (please order directly from the manufacturer)	./.
Miniter access reader	./.	From STM GmbH (please order directly from the manufacturer)	./.
Multimedia Control Panel (ShuttlePRO2)	./.	From Contour Design Ltd. (please order directly from the manufacturer)	./.

4 Software description

4.1 SISTORE MX application software

4.1.1 Display mode

In display mode, the live images of the connected cameras are displayed and all events that occur, such as camera failure, alarm inputs and malfunctions, are logged.

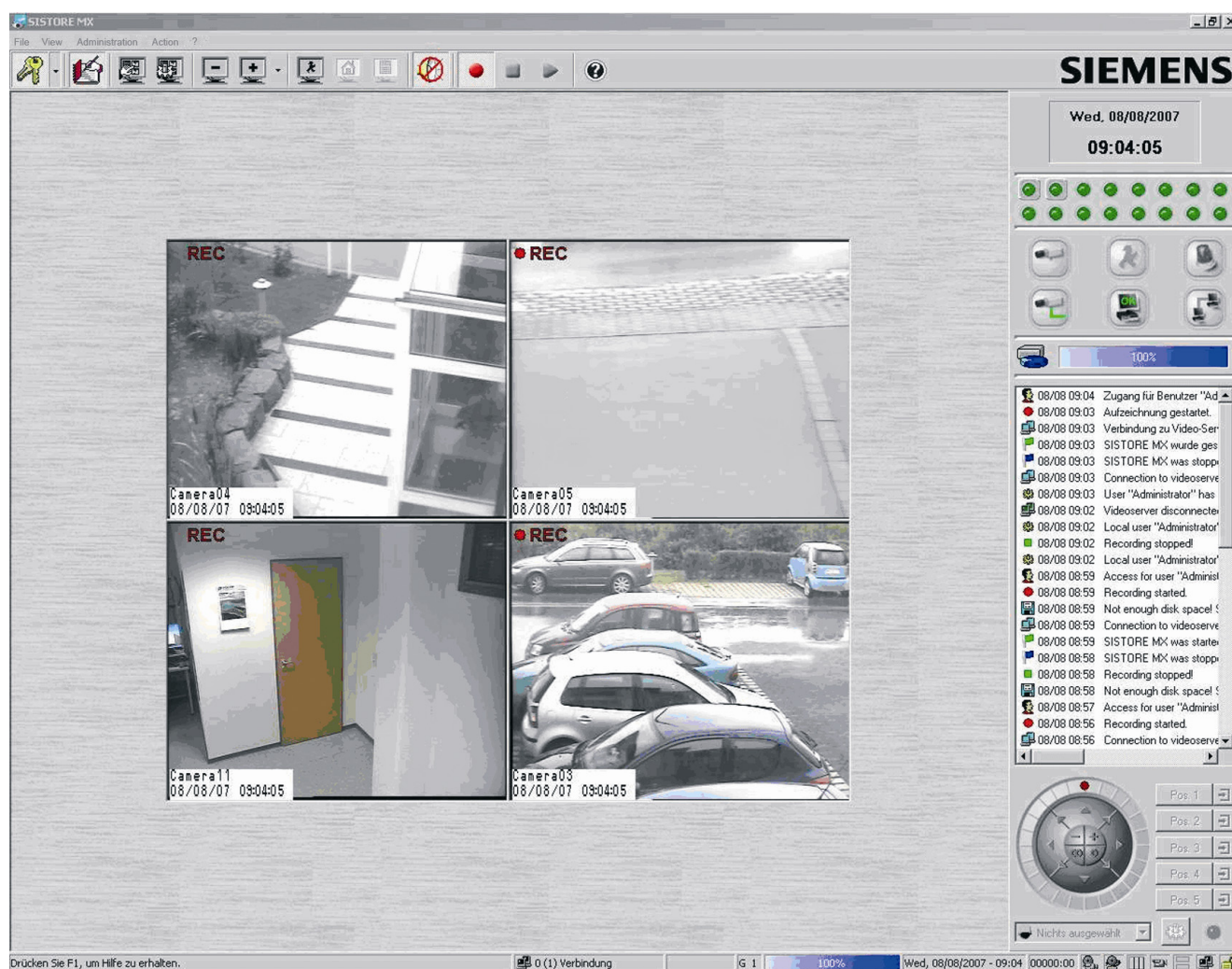


Fig. 1 SISTORE MX application software – Display mode

4.1.2 Playback mode

The recordings can be evaluated in playback mode. The database enables a flexible, precise search for particular events and the related camera images. Access to this mode is regulated based on administrative permission levels and can be additionally controlled using the 4-eyes principle. Camera recording and live image display continue to run in playback mode.

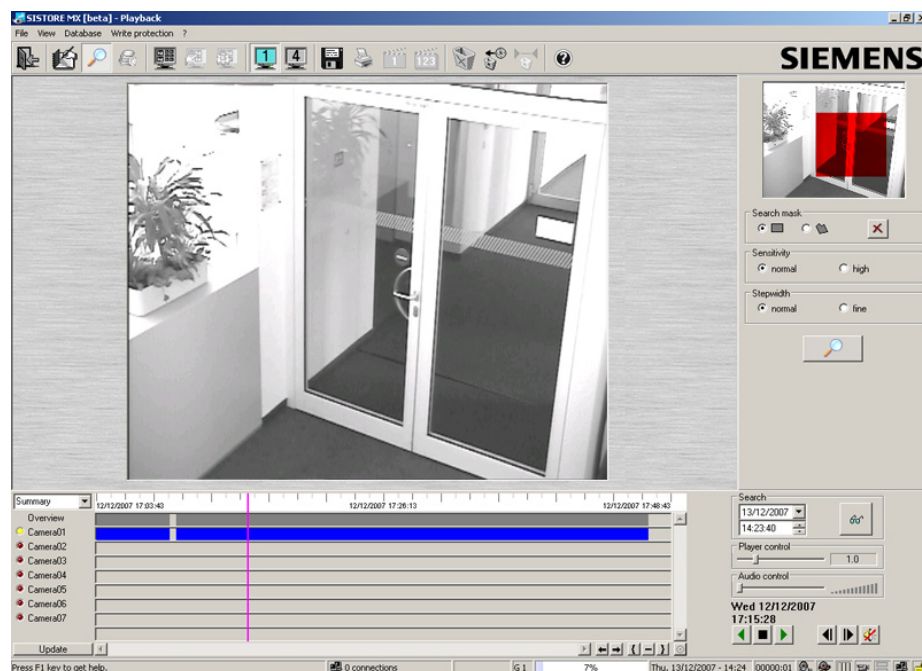


Fig. 2 SISTORE MX application software – Playback mode

4.1.3 Configuration mode

Configuration mode offers the following functions:

- Assignment of user rights
- Configuration of the analog and digital (LAN) cameras incl. brightness, contrast and colour saturation
- Configuration of the alarm inputs and all other inputs and outputs
- Camera settings for motion detection, alarm contact, output contact, time control, alarm forwarding, transmission, e-mail and SMS
- Configuration of network parameters such as ISDN or LAN with bandwidth limitation

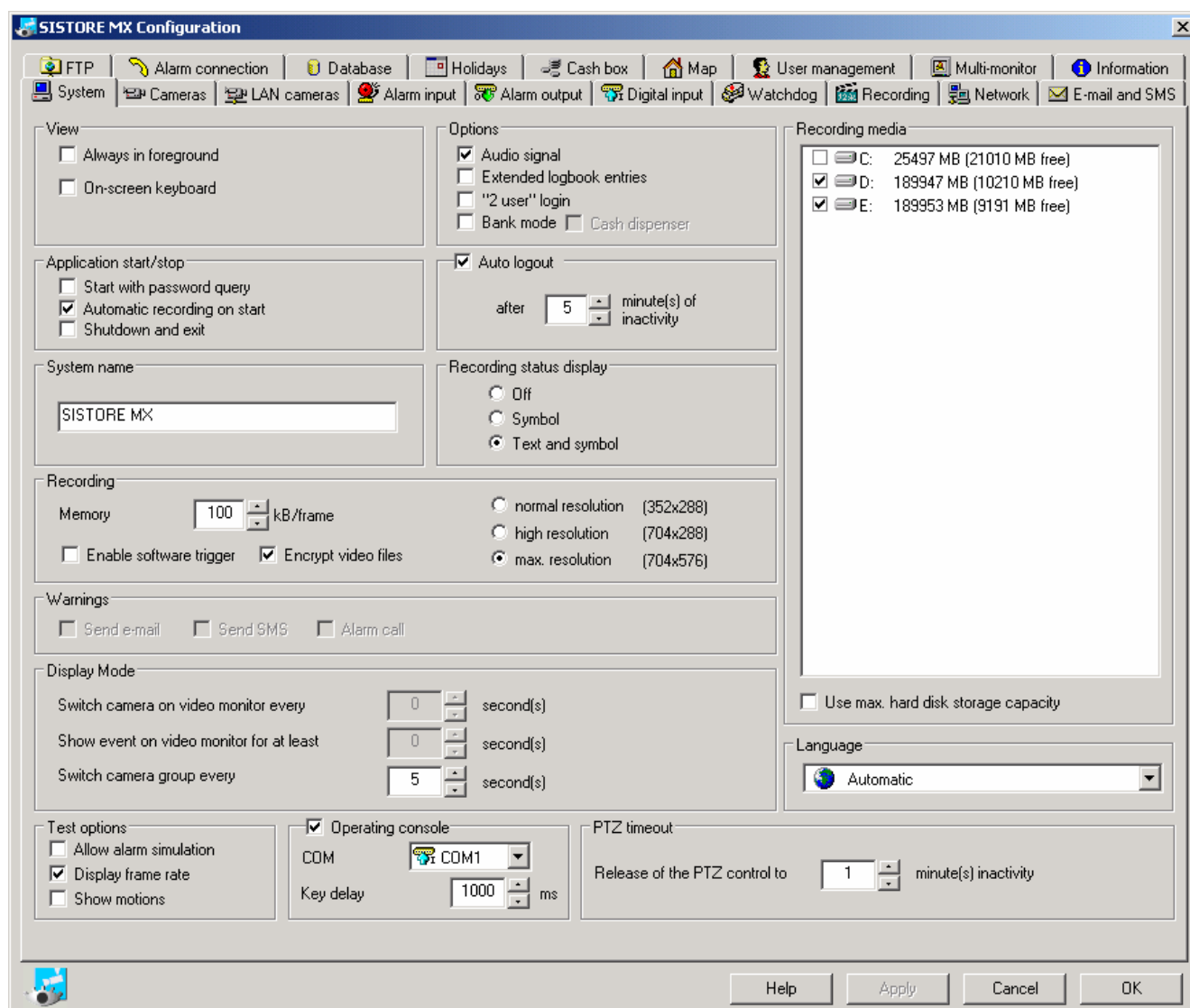


Fig. 3 SISTORE MX application software – Configuration mode

4.2 SISTORE RemoteView

SISTORE RemoteView provides you with the option of convenient remote access evaluation of existing video sequences. SISTORE MX functions as the server with SISTORE RemoteView as the client. This enables you to carry out the revision independently of place, as long as the SISTORE MX system is running and also the PCs intended for the revision are networked. A connection to the SISTORE MX system must be established via LAN, DSL or ISDN.



The time zones of the SISTORE RemoteView and the SISTORE MX server must be set the same, otherwise display errors will occur (such as incorrect time display).



You must have administrative rights to install and run the SISTORE RemoteView application software on the PC.

4.3 SISTORE WebView

The SISTORE MX server can be operated not only with SISTORE RemoteView but also using a browser.

Use the following browsers for this:

- Microsoft Internet Explorer 6.x or later

SISTORE WebView allows the use of all viewing functions of the video system over the network on a client PC.

SISTORE WebView provides the following functions:

- Retrieval and playback of video recordings
- Display of live images
- Bandwidth limitation of the video server
- Password protection, users and passwords are set up on each SISTORE MX server via the user administration
- Live image display, up to 16 live images in parallel, with random access to cameras connected to various SISTORE MX servers (multi-server access) for logged in users with the user right "Display"
- Playback of saved images, only 1-channel playback
- Search by date and time
- Playback control: forward, reverse, single image step

As a web solution, SISTORE WebView and the MX Video Server are installed on a dedicated server and can be loaded and operated by any number of Windows clients. The prerequisite is that the client be connected to the web server via TCP-IP with Microsoft Internet Explorer and the Java Runtime Environment installed in the versions required.

SISTORE WebView can be run in German or English.

From the operating stations, any camera – regardless of the associated station – can be selected. The images are output on the monitors of the client PCs.



As of version 2.60, the SISTORE WebView software is an independent product and has to be ordered separately.

5 Setup

The following figure shows a possible system configuration with one SISTORE unit. For further specific examples please refer to the following chapters.

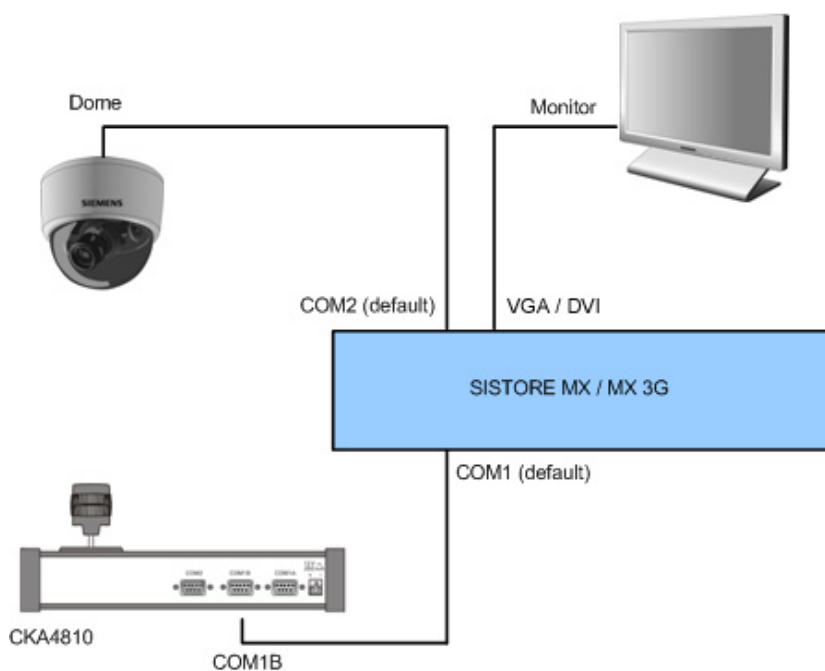


Fig. 4 System overview with SISTORE unit

5.1 Connecting control panel CKA4810

5.1.1 SISTORE unit

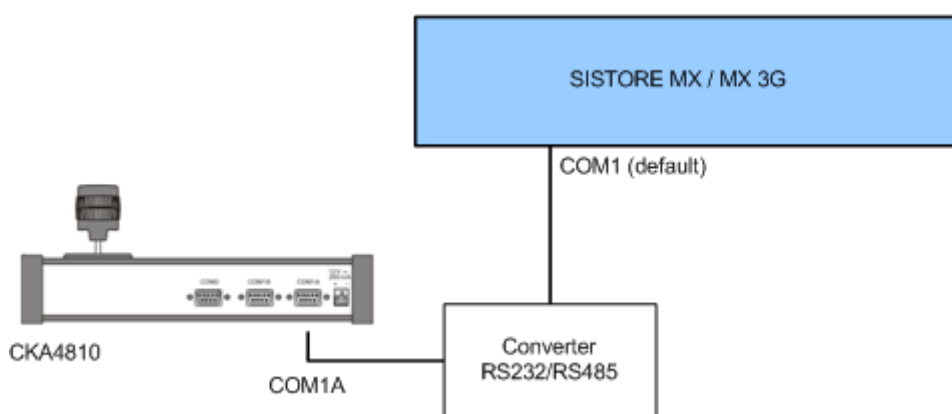


Fig. 5 SISTORE unit – CKA4810 system overview



A more detailed description of the connections can be found in the Installation Manual.

Prerequisite:

- The CKA driver is installed and the icon  is displayed in the task bar. For information on the subsequent installation of hardware drivers please refer to the Installation Manual.
1. Connect the converter between the control panel CKA4810 and the SISTORE unit (see Fig. 5). See Section 3 Details for ordering.
 2. Configure the COM1A connection on the control panel for use as an RS232 interface.



Further information on this can be found in the instruction manuals for the control panel CKA4810 and the converter.

3. Start the SISTORE MX application software. See Section 5.16 Starting the SISTORE MX application software and logging in.
4. Switch to configuration mode. See Section [Refceeb718f0232abc3b13f73b5d2e98fb9](#) 5.17 Opening configuration mode
5. Select the **System** tab.
6. Mark the checkbox **Operating console**. See Section 14.6 Enabling control panel control [Ref4132e5aec849bcec153e55e502874cb1](#).
7. Click **Apply**.
 - The interface for the control panel is enabled.

Connections

Signal	SISTORE MX 9-pin Sub-D socket	Converter	Converter 25-pin Sub-D	CKA4810 9-pin Sub-D plug
A (Rx/Tx +)	2	T +		
B (Rx/Tx -)	3	T -		
GND	5		7	5
RXD			3	2
TXD			2	3

CKA4810 interface configuration

- Protocol: SIMATRIX RS232 or SIEMENS IVM
- Baud rate: 9600
- Parity: None

5.1.2 SISTORE RemoteView

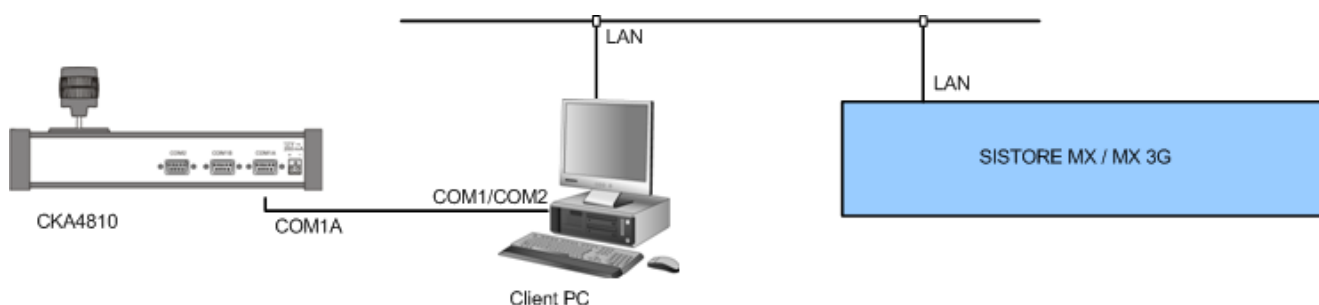


Fig. 6 SISTORE RemoteView – CKA4810 system overview



A more detailed description of the connections can be found in the Installation Manual.

Prerequisite:

- The CKA driver is installed and the icon  is displayed in the task bar. For information on the subsequent installation of hardware drivers please refer to the Installation Manual.

1. Connect the CKA4810 control panel to the client PC (see Fig. 6).
2. Configure the COM1A connection on the control panel for use as an RS232 interface.



Further information on this can be found in the instruction manuals for the control panel CKA4810 and the converter.

3. Start the SISTORE RemoteView application software. See Section 26.2 Starting SISTORE RemoteView.
4. Switch to configuration mode. See Section 26.3 Opening configuration mode.
5. Select the **System**.
6. Mark the checkbox **CCTV keyboard**. See Section 26.14.7 Enabling control panel control.
7. Click **Apply**.
 - The interface for the control panel is enabled.

Connections

Signal	Client PC SISTORE RemoteView	CKA4810 9-pin Sub-D plug
GND	5	5
RXD	3	2
TXD	2	3

CKA4810 interface configuration

- Protocol: SIMATRIX RS232 or SIEMENS IVM
- Baud rate: 9600
- Parity: None

5.2 Connecting control panel CKA4820

5.2.1 SISTORE unit

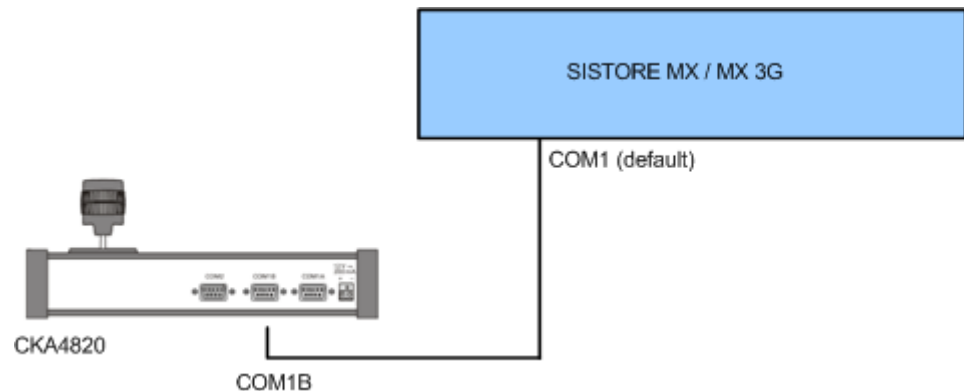


Fig. 7 SISTORE unit – CKA4820 system overview



A more detailed description of the connections can be found in the Installation Manual.

Prerequisite:

- The CKA driver is installed and the icon  is displayed in the task bar. For information on the subsequent installation of hardware drivers please refer to the Installation Manual.

1. Connect the CKA4820 control panel to the SISTORE (see Fig. 7).
2. Configure COM1B on the control panel as an RS485 interface.



Further information on this can be found in the instruction manual for the control panel.

3. Start the SISTORE MX application software. See Section 5.16 Starting the SISTORE MX application software and logging in.
4. Switch to configuration mode. See Section 5.17 Opening configuration mode
5. Select the **System**.
6. Mark the checkbox **Operating console**. See Section [Ref4132e5aec849bcec153e55e502874cb1](#) 14.6 Enabling control panel control.
7. Click **Apply**.
 - The interface for the control panel is enabled.

Connections

Signal	SISTORE MX 9-pin Sub-D socket	CKA4820 9-pin Sub-D plug
A (Rx/Tx +)	2	5
B (Rx/Tx -)	3	9
GND	5	6

CKA4820 interface configuration

- Protocol: SIMATRIX RS232 or SIEMENS IVM
- Baud rate: 9600
- Parity: None



If you want to connect the CKA4820 operating console to a SISTORE MX via the internal COM1A interface, install the RS-232C/RS-485 interface converter into the connection line.

5.2.2 SISTORE RemoteView

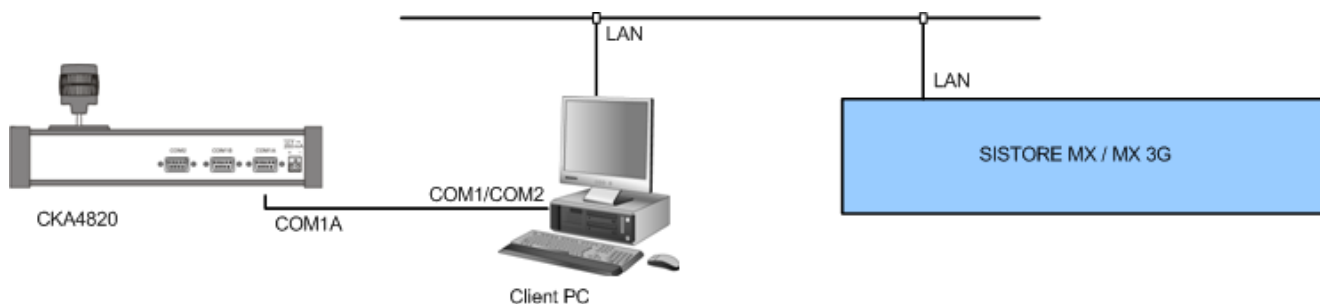


Fig. 8 SISTORE RemoteView – CKA4820 system overview



A more detailed description of the connections can be found in the Installation Manual.

Prerequisite:

- The CKA driver is installed and the icon  is displayed in the task bar. For information on the subsequent installation of hardware drivers please refer to the Installation Manual.

1. Connect the CKA4820 control panel to the client PC (see Fig. 8).
2. Configure the COM1A connection on the control panel for use as an RS232 interface.



Further information on this can be found in the instruction manual for the control panel.

3. Start the SISTORE RemoteView application software. See Section 26.2 Starting SISTORE RemoteView.

4. Switch to configuration mode. See Section 26.3 Opening configuration mode.
5. Select the **System** tab.
6. Mark the checkbox **Operating console**. See Section 26.14.7 Enabling control panel control.
7. Click **Apply**.
 - The interface for the control panel is enabled.

Connections

Signal	Client PC SISTORE RemoteView	CKA4820 9-pin Sub-D plug
GND	5	5
RXD	3	2
TXD	2	3

CKA4820 interface configuration

- Protocol: SIMATRIX RS232 or SIEMENS IVM
- Baud rate: 9600
- Parity: None

5.3 Connecting the Multimedia Control Panel (SISTORE MX / RemoteView)



The Multimedia Control Panel (ShuttlePRO2, see Section 3 Details for ordering) is not a product of Siemens Building Technologies Fire & Security Products GmbH & Co. oHG. It can be ordered from Contour Design Ltd. (www.contourdesign.com) (product name: ShuttlePRO2).

The Multimedia Control Panel has been integrated and tested with SISTORE MX. Siemens Building Technologies Fire & Security Products GmbH & Co. oHG can however not guarantee fault-free operation of the Multimedia Control Panels and does not provide any support. In case of problems with the product, please contact the manufacturer (www.contourdesign.com).

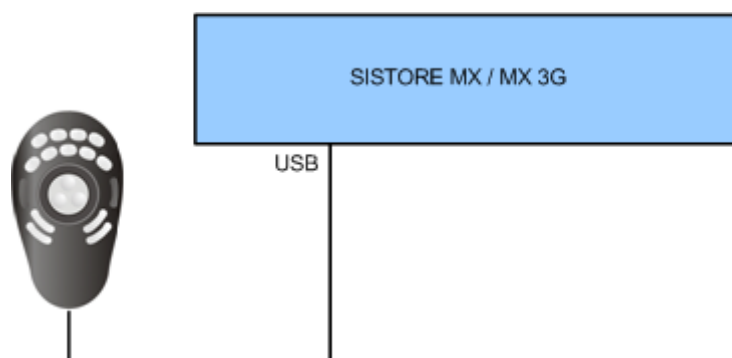


Fig. 9 SISTORE – Multimedia Control Panel system overview



To install the Multimedia Control Panel on a SISTORE MX without DVD drive, you must carry out the following steps:

1. Copy the files on the accompanying CD onto an external USB storage medium.
2. Plug the storage medium into a USB port on the SISTORE MX.
3. Launch the file **Autorun.exe** from the USB storage medium.
4. Proceed with step 4 in subsection **Installing the Multimedia Control Panel**.

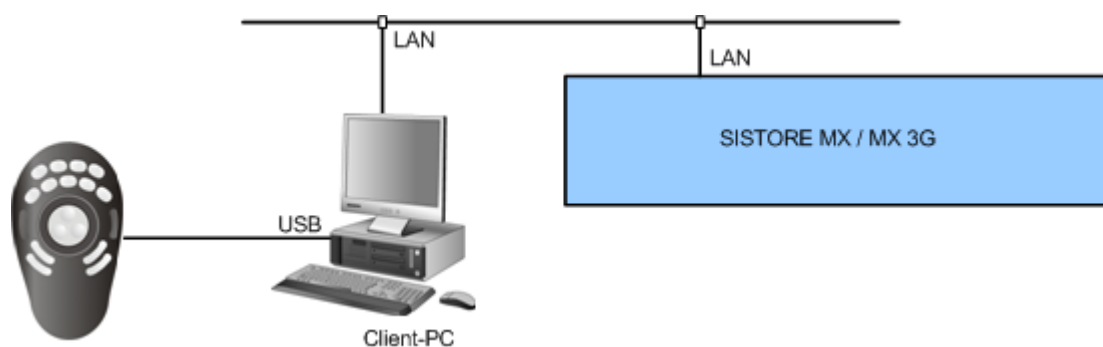


Fig. 10 SISTORE RemoteView – Multimedia Control Panel system overview



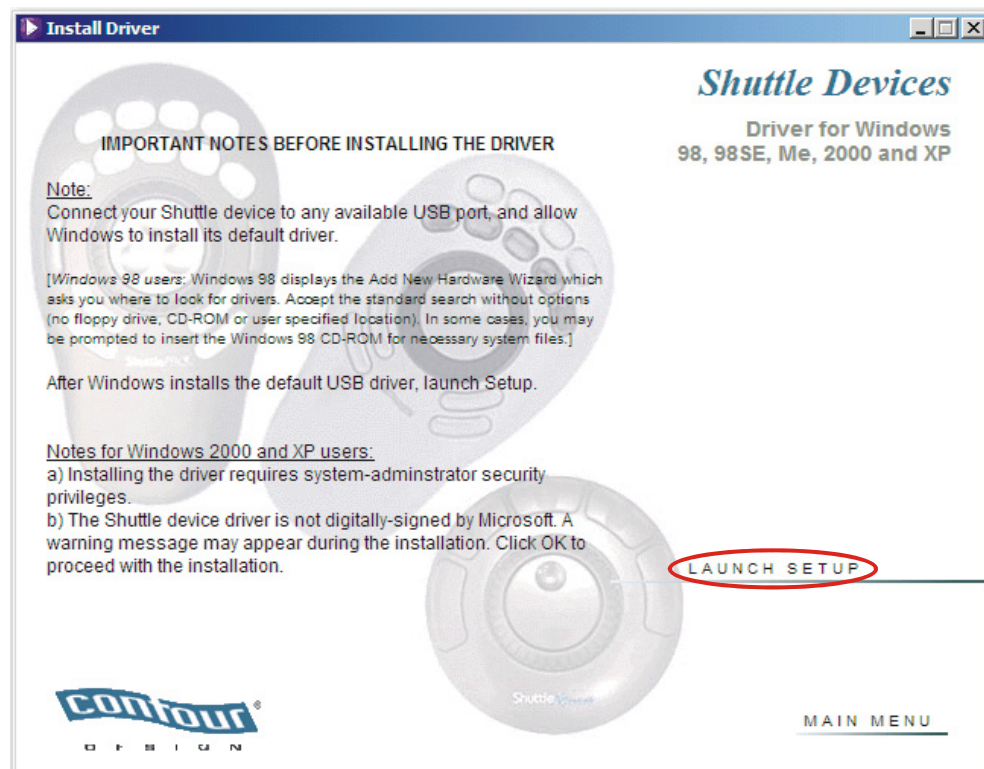
A more detailed description of the connections can be found in the Installation Manual.

Installing the software for the Multimedia Control Panel

1. Connect the Multimedia Control Panel to a USB port on the SISTORE MX or on the client PC.
2. Place the CD in the CD/DVD drive.
 - The CD will start automatically.
3. If the CD does not automatically start, double click the file **Autorun.exe**.
 - The following dialog box opens.

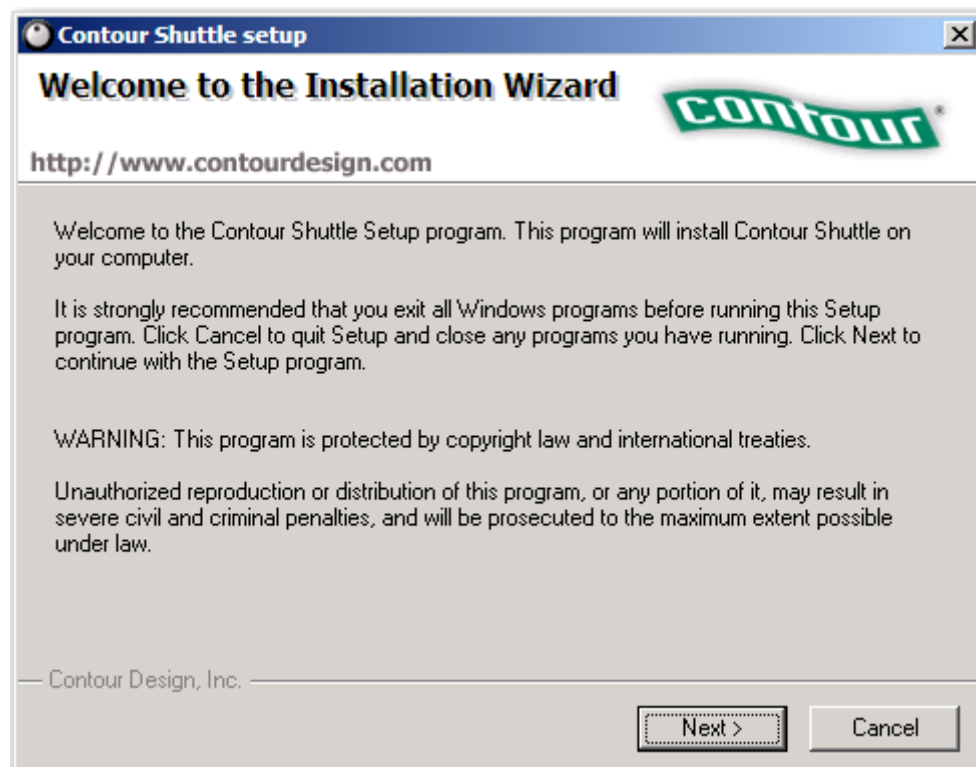


4. Click on **INSTALL DRIVER**.
 - The following dialog box opens.

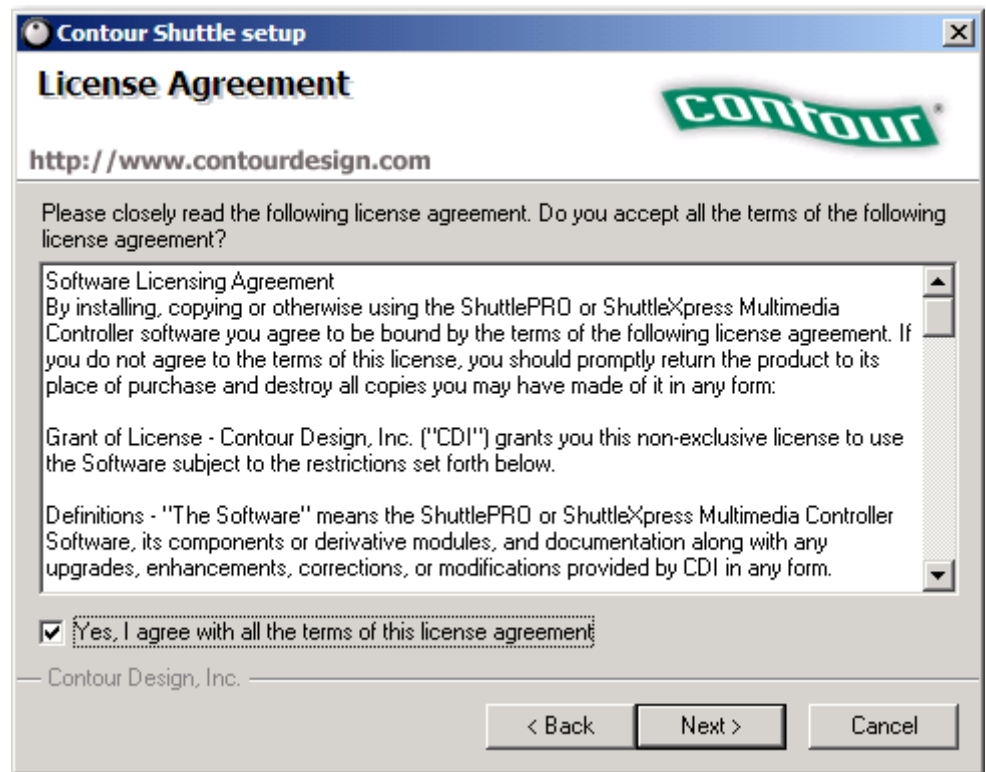


5. Click **LAUNCH SETUP**.

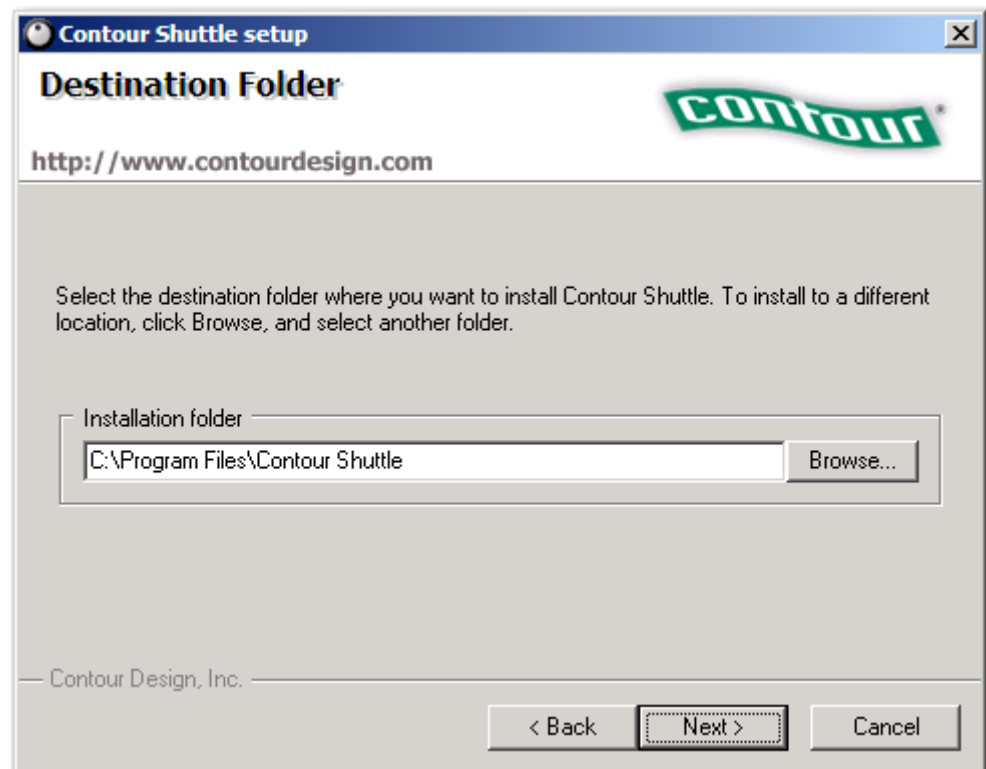
→ The following dialog box opens.



6. Click **Next**.
→ The following dialog box opens.

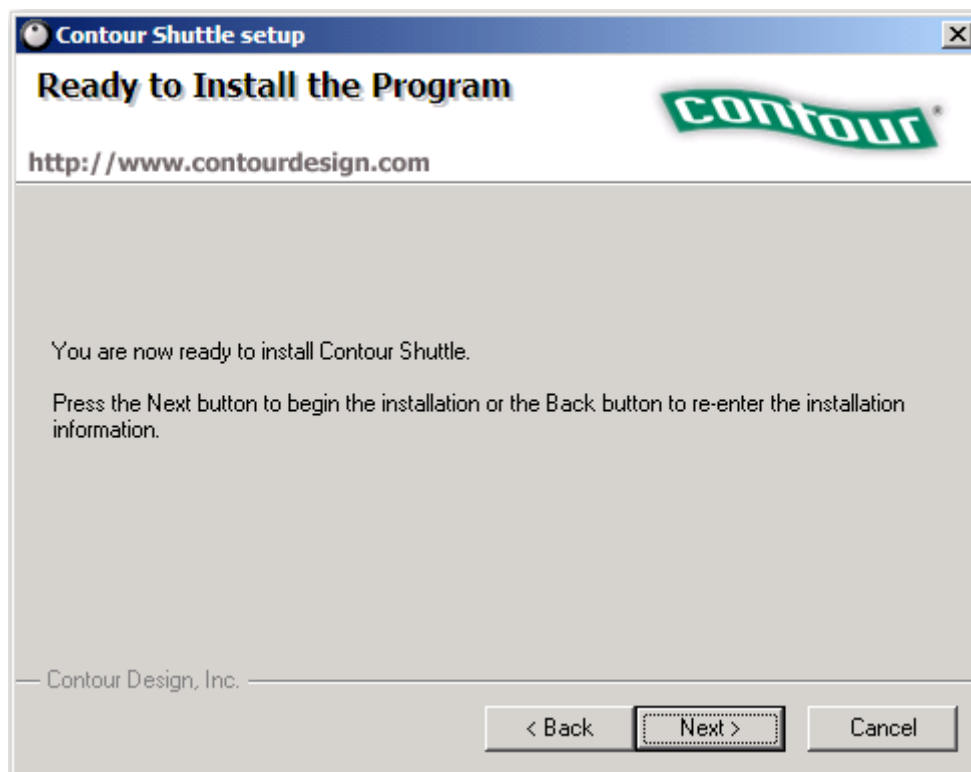


7. Mark the checkbox **Yes, I agree with all the terms of this license agreement**.
8. Click **Next**.
→ The following dialog box opens.



9. Click **Next** to install the software in the default directory.

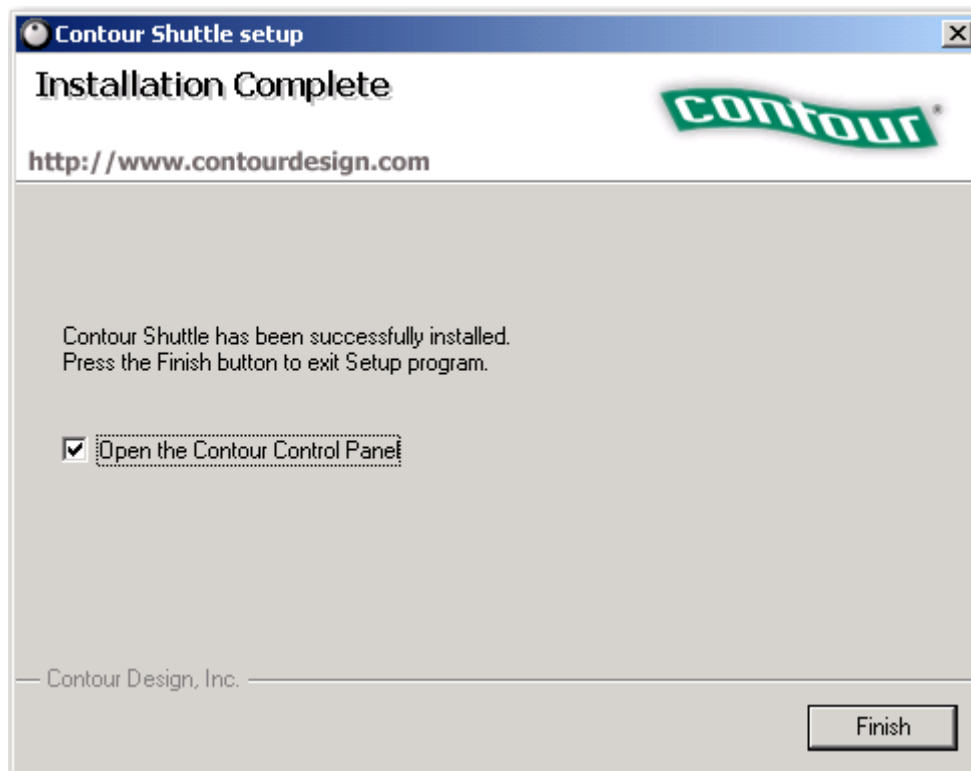
→ The following dialog box opens.



10. Click **Next**.

→ The software will be installed.

→ The following dialog box opens.



11. Mark the checkbox **Open the Contour Control Panel**.

12. Click **Finish**.

- The software has been installed.
- The **Contour Shuttle Device Configuration** dialog box opens.

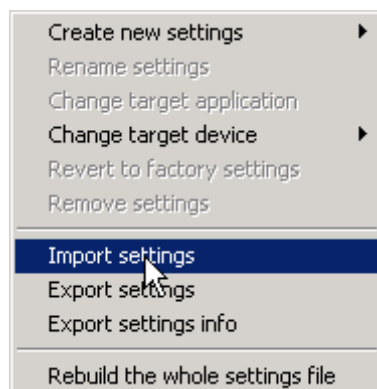
Configuring the Multimedia Control Panel



Fig. 11 Contour Shuttle Device Configuration

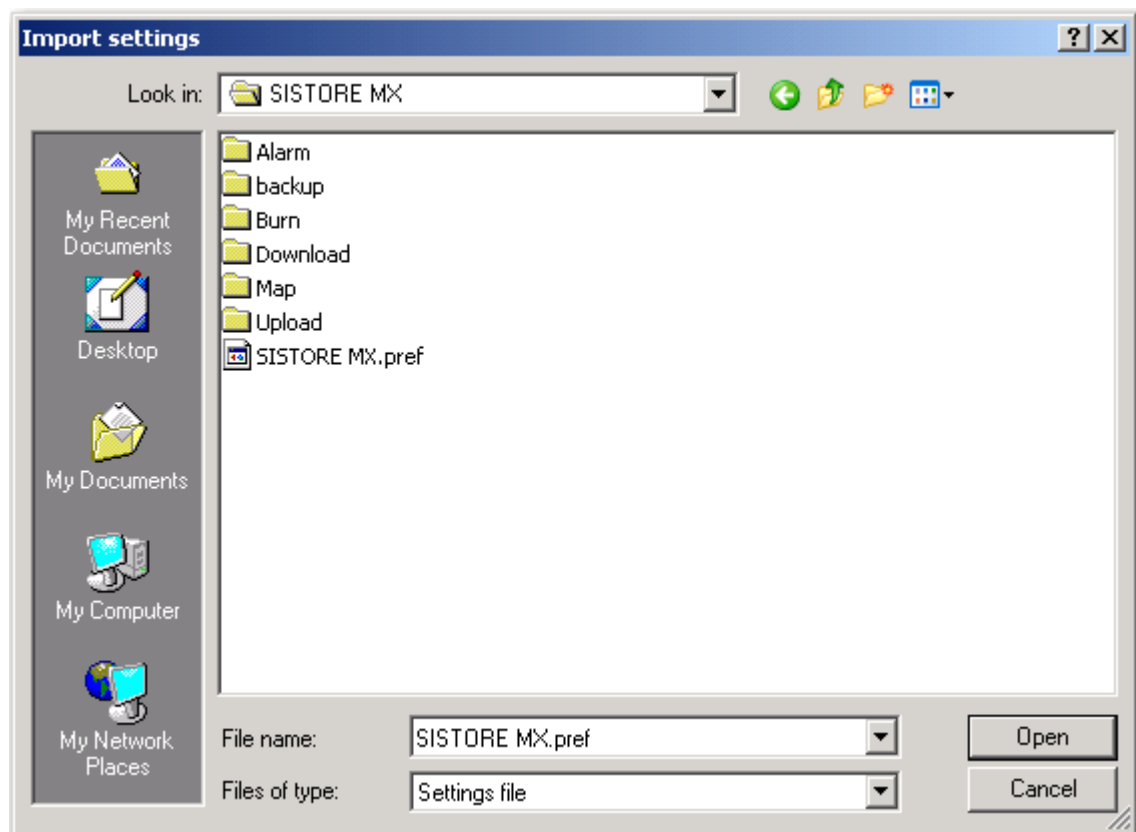
13. Click **Options**.

- The following context menu opens:



14. Select **Import settings** in the context menu.

→ The following dialog box opens.



15. Navigate to the directory where SISTORE MX or SISTORE RemoteView is installed.
16. Open the file **SISTORE MX.pref** or **SISTORE MX RemoteView.pref**
17. Click **Apply**.
18. If you also want to use the Multimedia Control Panel with the SISTORE Player, repeat steps 13 to 17 and import the file **SISTOREPlayer.pref**.
19. Click **OK**.

→ The Multimedia Control Panel is ready for operation.



Information on the operation of SISTORE MX / SISTORE RemoteView and SISTORE Player using the Multimedia Control Panel can be found in the SISTORE MX User Manual.

5.4 Configuring alarm connection from Siemens LAN cameras CCIX1345

Prerequisites:

- The Siemens LAN camera is installed. Further information on this can be found in the installation manual for the camera.
- The recording mode for the appropriate LAN trigger input has been configured in SISTORE MX. See Section 17.3 Configuring recording modes.
- A VLC media player is installed (only for live video display).

5.4.1 Matching IP ports

SISTORE MX supports up to 32 LAN trigger inputs (alarm inputs 101 to 132 in the **Alarm input** tab). These inputs can be addressed via the IP HTTP port 13801 and the IP SMTP port 13802.



The IP port of the LAN camera and the IP port of the SISTORE MX application software must be identical.

1. Start the SISTORE MX application software. See Section 5.16 Starting the SISTORE MX application software and logging in.
2. Switch to configuration mode. See Section 5.17 Opening configuration mode.
3. Select the **Network** tab.

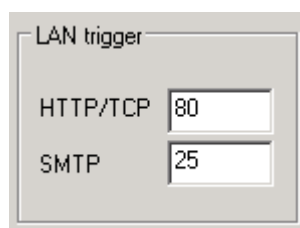


Fig. 12 Network trigger data for Siemens CCIX1345 LAN camera

4. Enter the IP-HTTP/TCP port and the IP-SMTP port of the LAN camera in the **LAN trigger** group field.

5.4.2 Configuring a LAN camera

- 1. Open the **Internet Explorer**.
- 2. Enter the IP address of the Siemens LAN camera in the **Address** field of the Internet Explorer.



The default IP address of the Siemens LAN camera can be found on a label on the top of the device. The IP address of the device can be changed subsequently. Please refer to the user manual for the camera.

- 3. Press the **Enter** key.
- 4. Answer **Yes** in the **Security alert** which opens.
→ The following dialog box opens.

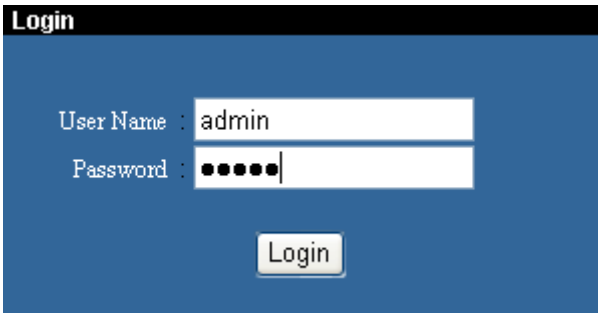


Fig. 13 Camera login dialog

- 5. Enter **admin** in the **User Name** field.
- 6. Enter **admin** in the **Password** field.
- 7. Click **Login**.
→ The device homepage will be opened.

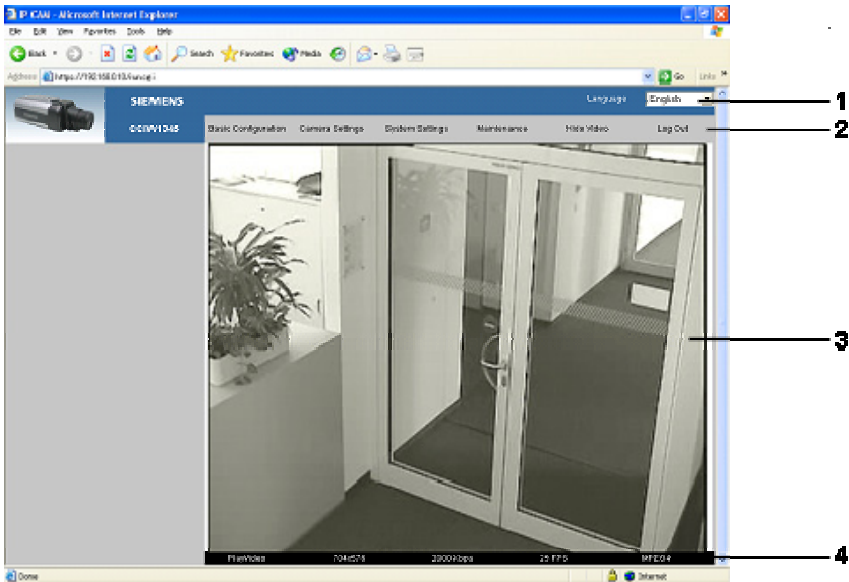


Fig. 14 Device homepage

1	Language selection box
2	Menu line
3	Live image display area
4	Streaming information

8. Select the menu sequence **Basic configuration > Configure alarm**.

→ The alarm configuration dialog opens:

	Mail	SMS	Output Alarm	Trigger Level
Power Up	☐	☐	☐	
Login Failure	☐	☐	☐	
Activity Detection	☒	☐	☐	
Input Alarm Trigger	☒	☐	☐	☐ Active High ☒ Active Low
Colour/B&W switching	☐	☐	☐	☐ Active High ☒ Active Low

Temperature Settings

Above normal limit	☐	☐	☐
Above high limit	☐	☐	☐
Above critical limit	☐	☐	☐

Set

Fig. 15 Alarm configuration

9. Mark the checkbox **Activity Detection** under **Mail** if you want to be notified when a motion is detected by a LAN camera.
10. Mark the checkbox **Input Alarm Trigger** under **Mail** if you want to be notified when an alarm is triggered by a LAN camera.
11. Click **Save**.
→ The settings have been saved.
12. Select the menu sequence **Basic configuration > E-mail settings**.

→ The E-mail configuration dialog opens:

Send Email at

Power Up

Login Failure

Activity Detection

Input Alarm Trigger

Colour/B&W switching

Normal Temperature

High Temperature

Critical Temperature

Mail Settings

Mail From

SMTP IP Address

SMTP Username

SMTP Password

Custom Text

SMS Settings

Email address of Mobile device

Fig. 16 Email configuration

13. Enter an e-mail address for each of the events (e.g. alarm triggered) the SISTORE unit is to be notified of by e-mail in the text fields under **Send Email at** (see Fig. 15 and Fig. 16).



The e-mail addresses must contain the text assigned to the alarm input as defined in the SISTORE MX application software, e.g. TRIGGER[XY]PULSE@c.com. See Section 12.2 Configuring internal alarm inputs and USB alarm inputs. [XY] represents the desired LAN trigger input. Enter a figure between 01 and 32 instead of [XY].

14. Enter an e-mail address in the **Mail From** text field.
15. Enter the IP address of the SISTORE MX in the **SMTP IP Address** field.
16. Click **Save**.
 - The settings have been saved.
17. Click **Log Out** on the device homepage.
 - The alarm connection is now activated.

5.5 Connecting the CCDA1425 dome camera

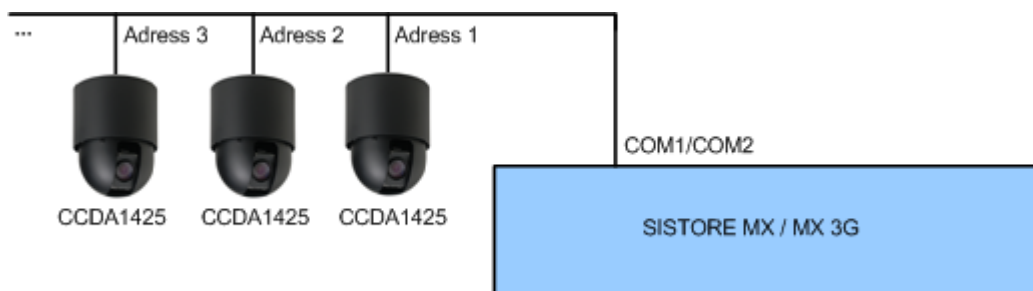


Fig. 17 CCDA1425 dome camera – system overview



A more detailed description of the connections can be found in the Installation Manual.

1. Connect the dome cameras to the SISTORE (see Fig. 17). Further information on this can be found in the instruction manual for the dome camera.
2. Start the SISTORE MX application software. See Section **Fehler!** **Verweisquelle konnte nicht gefunden werden**. Starting the SISTORE MX application software and logging in.
3. Switch to configuration mode. See Section 5.17 Opening configuration mode.
4. Mark the checkbox **PTZ** in the **Cameras** tab See Section 7.7 Configuring pan/tilt control.
5. Choose the camera type from the first list box.
6. Choose the interface from the second list box.
7. Click **Apply**.
 - The interface for the dome camera is enabled.

Connections

Signal	SISTORE MX 9-pin Sub-D socket	CCDA1425
A (Rx/Tx +)	2	Data +
B (Rx/Tx -)	3	Data -

CCDA1425 interface configuration

- Baud rate: 9600
- Parity: None
- Dome CCDA1425

5.6 Connecting the CCDA1435 dome camera

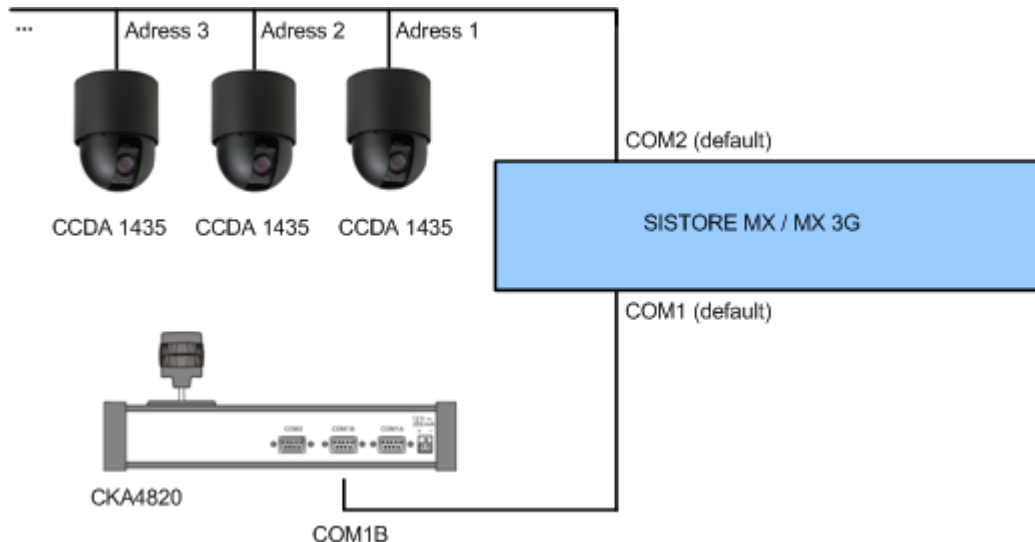


Fig. 18 Dome CCDA1435 – CKA4820 system overview



A more detailed description of the connections can be found in the Installation Manual.

Prerequisite:

- The CKA driver is installed and the icon  is displayed in the task bar. For information on the subsequent installation of hardware drivers please refer to the Installation Manual.
1. Connect the dome cameras and the control panel to the SISTORE (see Fig. 18). Further information on this can be found in the instruction manuals for the dome camera and the control panel.
 2. Start the SISTORE MX application software. See Section **Fehler! Verweisquelle konnte nicht gefunden werden.** Starting the SISTORE MX application software and logging in.
 3. Switch to configuration mode. See Section 5.17 Opening configuration mode.
 4. Select the **System** tab.
 5. Mark the checkbox **Operating console**.
 - The interface for the control panel is enabled.
 6. Select the **Cameras** tab.
 7. Mark the checkbox **PTZ**.
 8. Choose the camera type from the first list box.
 9. Choose the interface from the second list box.
 10. Click **Apply**.
 - The interface for the dome camera is enabled.

Connections

Signal	SISTORE MX 9-pin Sub-D socket	CCDA1435
A (Rx/Tx +)	2	Data +
B (Rx/Tx -)	3	Data -

CCDA1435 interface configuration

- Baud rate: 9600
- Parity: None

5.7 Connecting pan-and-tilt unit PT40

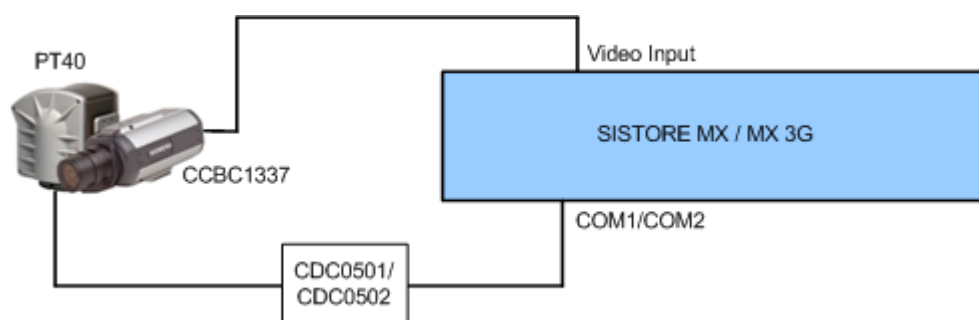


Fig. 19 Pan-and-tilt unit PT40 – system overview



A more detailed description of the connections can be found in the Installation Manual.

1. Connect the pan-and-tilt unit to the SISTORE (see Fig. 19).
2. Connect the camera to the SISTORE (see Fig. 19).
Further information on this can be found in the instruction manuals for the pan-and-tilt unit, the control unit and the camera.
3. Start the SISTORE MX application software. See Section **Fehler! Verweisquelle konnte nicht gefunden werden.** Starting the SISTORE MX application software and logging in.
4. Switch to configuration mode. See Section 5.17 Opening configuration mode.
5. Select the **Cameras** tab.
6. Mark the checkbox **PTZ**. See Section 7.7 Configuring pan/tilt control.
7. Choose the camera type from the first list box.
8. Choose the interface from the second list box.
9. Click **Apply**.
→ The interface for the camera is enabled.

Connections

Signal	SISTORE MX 9-pin Sub-D socket	CDC0501/0502 (J6)
A (Rx/Tx +)	2	Rx/Tx +
B (Rx/Tx -)	3	Rx/Tx -

5.8 Connecting pan-and-tilt unit CDD2410

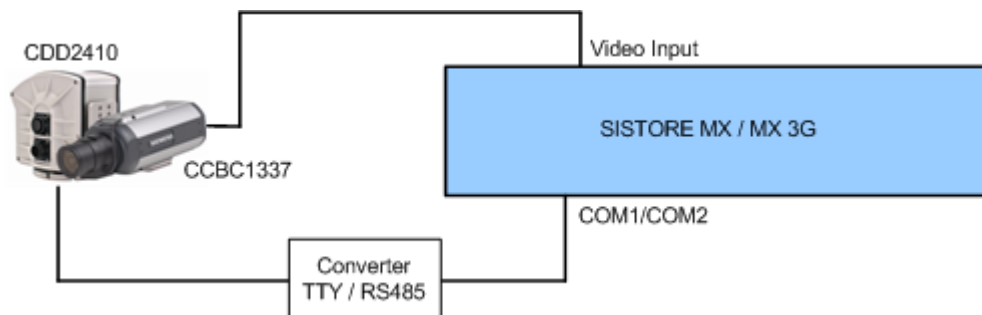


Fig. 20 Pan/tilt drive CDD2410 system overview



A more detailed description of the connections can be found in the Installation Manual.

1. Connect the pan-and-tilt unit to the SISTORE (see Fig. 20).
2. Connect the camera to the SISTORE (see Fig. 20).
Further information on this can be found in the instruction manuals for the pan-and-tilt unit, the converter and the camera.
3. Start the SISTORE MX application software. See Section **Fehler! Verweisquelle konnte nicht gefunden werden.** Starting the SISTORE MX application software and logging in.
4. Switch to configuration mode. See Section 5.17 Opening configuration mode.
5. Select the **Cameras** tab.
6. Mark the checkbox **PTZ**. See Section 7.7 Configuring pan/tilt control.
7. Choose the camera type from the first list box.
8. Choose the interface from the second list box.
9. Click **Apply**.
→ The interface for the camera is enabled.

5.9 Connecting SCU pan-and-tilt unit PT40P via controller CDC050x

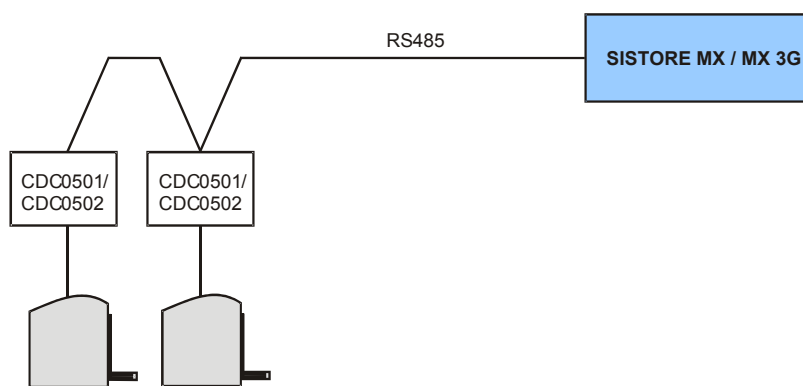


Fig. 21 Controller CDC050x – system overview



A more detailed description of the connections can be found in the Installation Manual.

1. Connect the pan-and-tilt units via controller CDC0501 or CDC0502 to the RS485 port (COM2) of the SISTORE (see Fig. 21).
2. Further information on this can be found in the product documentation for the pan-and-tilt unit.

Connections

Signal	SISTORE unit 9-pin Sub-D socket	CDC0502	CDC0501	PT40P
A (Rx/Tx +)	2	Rx/Tx +	Rx/Tx -	Data +
B (Rx/Tx -)	3	Rx/Tx -	Rx/Tx -	Data -

5.10 Connecting SCU pan-and-tilt unit via controller CDCCD2417

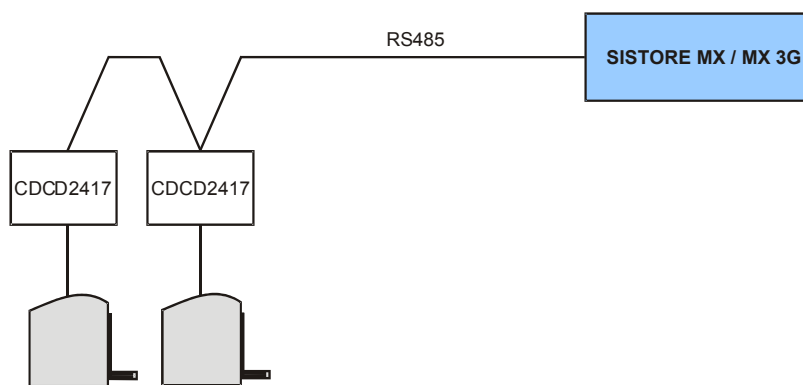


Fig. 22 Controller CDCCD2417 – system overview



A more detailed description of the connections can be found in the Installation Manual.

1. Connect the pan-and-tilt units via controller CDCD2417 to the RS485 port (COM2) of the SISTORE (see Fig. 22).
2. Further information on this can be found in the product documentation for the pan-and-tilt unit.

Connections

Signal	SISTORE unit 9-pin Sub-D socket	CDCD2417
A (Rx/Tx +)	2	Terminal 1 (Data +)
B (Rx/Tx -)	3	Terminal 2 (Data -)

CDCD2417 interface configuration

- Baud rate: 9600
- Parity: Odd
- Data bits: 8
- STOP bit: 1

5.11 Connecting the MX Multi-Channel Box RCI 0601 and cash dispensers

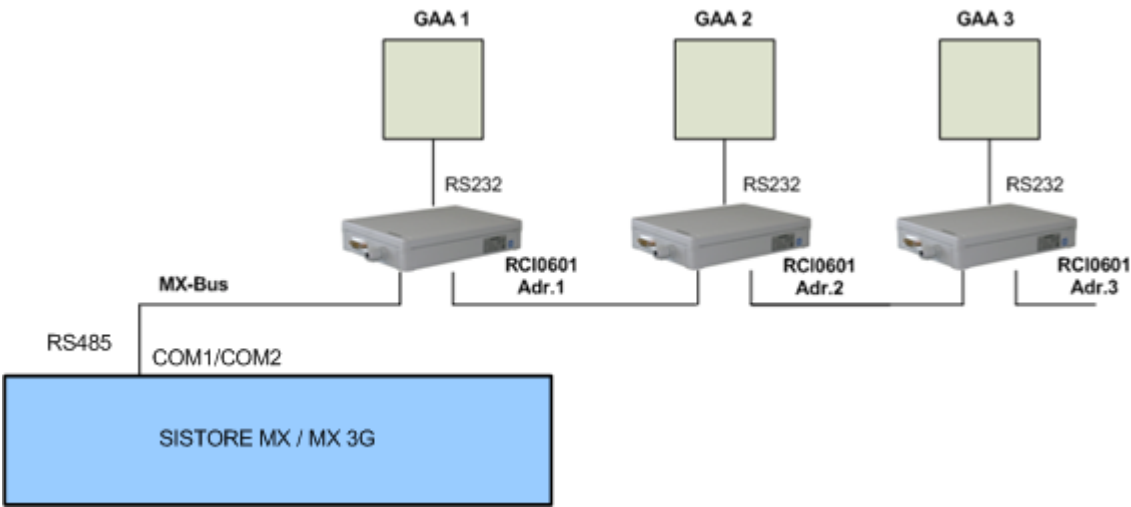


Fig. 23 MX Multi-Channel Box RCI 0601 and ATM system overview



A more detailed description of the connections can be found in the Installation Manual.

1. Connect the MX Multi-Channel Box to the SISTORE unit (see Fig. 23).
2. Connect the cash dispensers to the MX Multi-Channel Box RCI 0601. Further information on this can be found in the user manual for the MX Multi-Channel Box RCI 0601.

3. Start the SISTORE MX application software. See Section **Fehler! Verweisquelle konnte nicht gefunden werden.** Starting the SISTORE MX application software and logging in.
4. Switch to configuration mode. See Section 5.17 Opening configuration mode.
5. Select the **System** tab.
6. Mark the checkboxes **Bank mode** and **Cash dispenser**.
7. Click **Apply**.
 - The settings will be saved.
8. Restart the software.
9. Make the appropriate settings in the **Banking** tab. See Section 20 Configuration of bank mode and Section 21 Configuration of cash dispenser mode.

5.12 Connecting the MX Multi-Channel Box RCI 0601 and an access reader (Kebin)



Fig. 24 MX Multi-Channel Box RCI 0601 and access reader – system overview



A more detailed description of the connections can be found in the Installation Manual.

1. Connect the MX Multi-Channel Box to the SISTORE (see Fig. 24).
2. Connect the access reader to the MX Multi-Channel Box RCI 0601.
Further information on this can be found in the user manual for the MX Multi-Channel Box RCI 0601.
3. Start the SISTORE MX application software. See Section **Fehler! Verweisquelle konnte nicht gefunden werden.** Starting the SISTORE MX application software and logging in.
4. Switch to configuration mode. See Section 5.17 Opening configuration mode.
5. Select the **System** tab.
6. Mark the checkboxes **Bank mode** and **Cash dispenser**.
7. Click **Apply**.
 - The settings will be saved.
8. Restart the software.

- 9. Make the appropriate settings in the Banking tab. See Section 20 Configuration of bank mode and Section 21 Configuration of cash dispenser mode.

5.13 Connecting (Miniter) interface and access reader

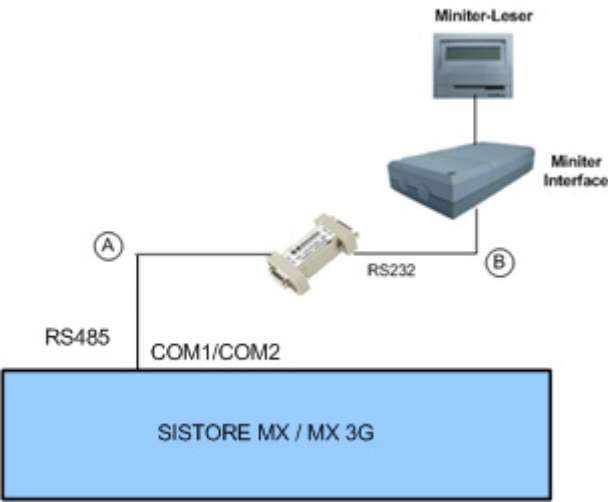


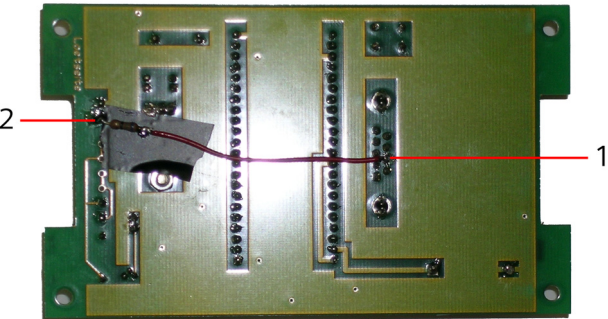
Fig. 25 System overview: SISTORE MX – interface und access reader (Miniter)

A	Cable (9-pin), plug-plug 2-3, 3-2
B	Null-modem cable (9-pin), plug-plug 2-3, 3-2, 4-6, 5-5, 6-4, 7-8, 8-7



A more detailed description of the connections can be found in the Installation Manual.

- 1. Connect the interface to the SISTORE (see Fig. 25).
For this you require the converter 485SD9R (B&B), a 9-pin cable, Sub-D, plug-plug, connections 2–3, 3–2, and a null-modem cable, Sub-D, plug-plug, connections 2–3, 3–2, 4–6, 5–5, 6–4, 7–8, 8–7.
- 2. Connect pin 7 of the Sub-D connector through an 81-Ohm resistor to 12 V. See the figure below:



1	Pin 7
2	+12 V

- 3. Connect the access reader (Miniter) to the interface.

4. Start the SISTORE MX application software. See Section **Fehler! Verweisquelle konnte nicht gefunden werden.** Starting the SISTORE MX application software and logging in.
5. Switch to configuration mode. See Section 5.17 Opening configuration mode.
6. Select the **System** tab.
7. Mark the checkboxes **Bank mode** and **Cash dispenser**.
8. Click **Apply**.
 - The settings will be saved.
9. Restart the software.
10. Make the appropriate settings in the Banking tab. See Section 20 Configuration of bank mode and Section 21 Configuration of cash dispenser mode.

5.14 Connecting cash box systems

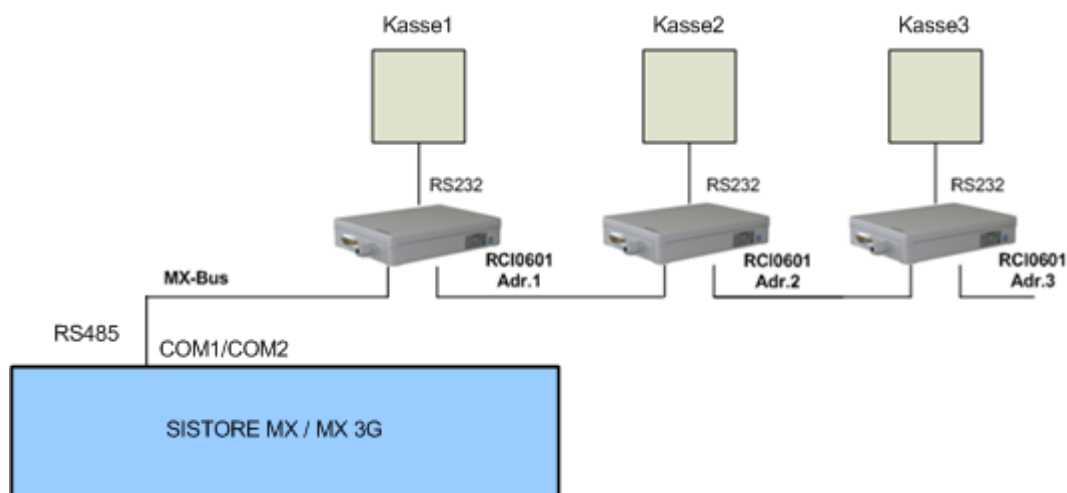


Fig. 26 MX Multi-Channel Box RCI 0601 and cash box system – system overview



A more detailed description of the connections can be found in the Installation Manual.

1. Connect the MX Multi-Channel Box(es) to the SISTORE unit (see Fig. 26).
2. Connect the cash boxes to the RCI 0601.
Further information on this can be found in the user manual for the MX Multi-Channel Box RCI 0601.
3. Start the SISTORE MX application software. See Section **Fehler! Verweisquelle konnte nicht gefunden werden.** Starting the SISTORE MX application software and logging in.
4. Switch to configuration mode. See Section 5.17 Opening configuration mode.
5. Select the **System** tab.
6. Untick the checkboxes **Bank mode** and **Cash dispenser**.



Please note that banking mode and cash register mode are mutually exclusive.

7. Click **Apply**.
→ The settings will be saved.
8. Make the appropriate settings in the **Cash box** tab. See Section 22 Configuration of cash box mode.

5.15 SISTORE unit – CKA4820 – SISTORE RemoteView – LAN cameras

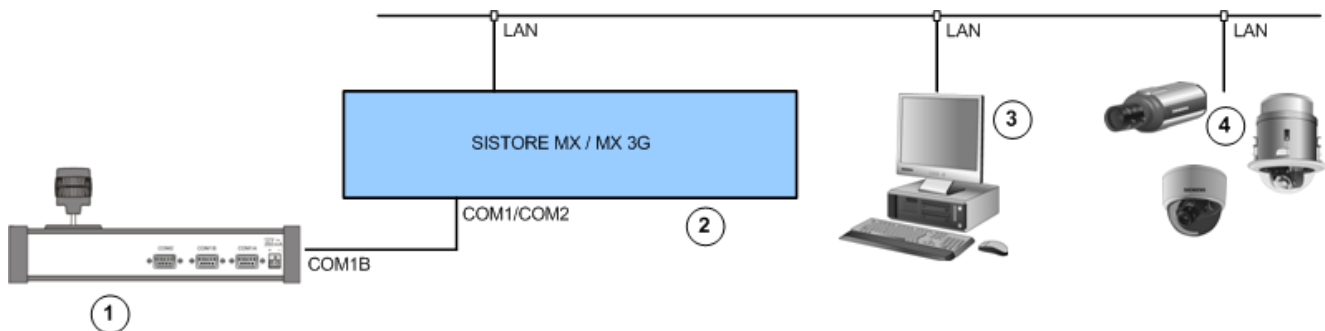


Fig. 27 SISTORE unit – CKA4820 – SISTORE RemoteView – LAN cameras system overview

1	CKA4820	optional
2	MX server	
3	Client PC with RemoteView	
4	SISTORE MX: max. 64 LAN cameras SISTORE MX 3G: max. 16 LAN cameras	various manufacturers



A more detailed description of the connections can be found in the Installation Manual.

Prerequisite:

- The CKA driver is installed and the icon  is displayed in the task bar. For information on the subsequent installation of hardware drivers please refer to the Installation Manual.

1. Connect the CKA4820 control panel to the SISTORE (see Fig. 27).
2. Configure COM1B on the control panel as an RS485 interface.



Further information on this can be found in the instruction manual for the control panel.

3. Start the SISTORE MX application software. See Section **Fehler!**
Verweisquelle konnte nicht gefunden werden. Starting the SISTORE MX application software and logging in.
4. Switch to configuration mode. See Section 5.17 Opening configuration mode.
5. Select the **System** tab.
6. Mark the checkbox **Operating console**.
→ The interface for the control panel is enabled.

Connections

Signal	SISTORE MX 9-pin Sub-D socket	CKA4820 9-pin Sub-D plug
A (Rx/Tx +)	2	5
B (Rx/Tx -)	3	9
GND	5	6

CKA4820 interface configuration

- Protocol: SIMATRIX RS232 or SIEMENS IVM
- Baud rate: 9600
- Parity: None



If you want to connect the CKA4820 operating console to a SISTORE MX via the internal COM1A interface, install the RS-232C/RS-485 interface converter into the connection line. For more information, see 5.2 Connecting control panel CKA4820.

5.16 Starting the SISTORE MX application software and logging in

1. Select the Windows menu sequence **Start > Programs > SISTORE MX > SISTORE MX**.

– OR –

Double click the desktop shortcut **SISTORE MX**



→ The application software will be started.



- Once the SISTORE MX application software is started you can view alarm pictures without being logged in.
- To perform any functions or to exit the program you have to log in.

2. Click the **Login**  button.

→ The following dialog box opens.

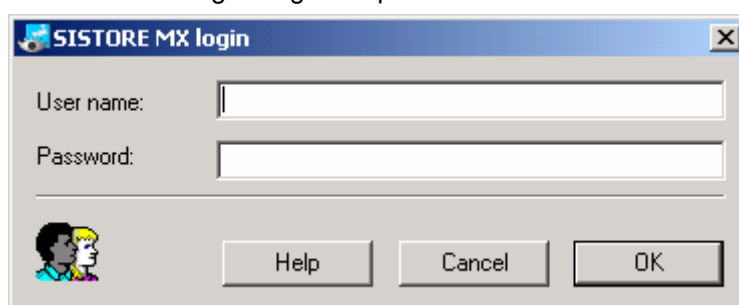


Fig. 28 SISTORE MX Login dialog



The user name and password are predefined. The entry is case-sensitive.

3. Enter "Administrator" in the **User name** field.
4. Enter "Administrator" in the **Password** field.
5. Click **OK**.



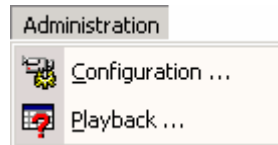
We advice to change the password after initial start-up. See Section 14.2.1 Creating and changing user accounts.

5.17 Opening configuration mode



Changes can be made in the configuration mode only if no recording is taking place. While recording is in progress you can only view the settings but you cannot make any changes.

1. Click on .
- Recordings in progress will be stopped.
2. Select the menu sequence **Administration > Configuration...**



→ The configuration mode will open.



If you switch to configuration mode while recording is in progress, an information message is displayed. (See Fig. 29). If you confirm this message with Yes, you will not be able to make any changes in the configuration mode. If you click No, the system will not switch to configuration mode.

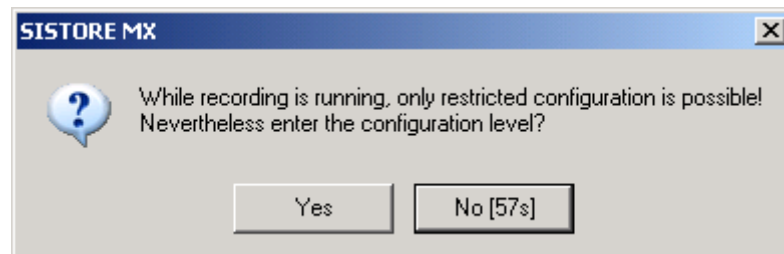


Fig. 29 Information message

5.18 Selecting other manuals

1. Click the icon  in the toolbar (only possible in display mode and in playback mode).
– OR –
Press **F1**.

6 Network configuration

6.1 Entering the system name

The system name is used primarily for identification of the system during remote access. Enter the location of the system, for example.



Fig. 30 The "System Name" text field in the "System" tab

Prerequisite:

- The SISTORE unit is connected to the network.
See Section 8.4 Configuring image parameters.

1. Select the **System** tab.
2. Enter the desired designation in the **System name** text field.
3. Click **Apply**.
→ The setting will be saved.

6.2 Configuring the network connection



If you operate the SISTORE MX application software or SISTORE RemoteView behind a firewall and want to access via a network, open all ports in the firewall that are used by the software.

All users logged in to the SISTORE MX application software (locally or via SISTORE RemoteView) can simultaneously view live images or recordings and control switch outputs.

All connections between the SISTORE MX application software and users logged in via SISTORE RemoteView will be terminated automatically when the following events occur:

- The configuration of the SISTORE MX application software is overwritten.
- Configuration mode is started in the SISTORE MX application software.

Fig. 31 "TCP/IP parameters" group field on the "Network" tab

Prerequisite:

- The SISTORE unit is connected to the network.

1. Select the **Network** tab.
2. Mark the checkbox **Allow network access** (see Fig. 36).
→ The **TCP/IP parameters** group field will be activated.
3. In the **TCP/IP Port** field, enter the number of the port to be used by the SISTORE RemoteView clients for connecting to the SISTORE MX application software.
4. In the **max. clients** field, select the maximum number of SISTORE RemoteView clients that are permitted to connect simultaneously to the SISTORE MX application software (max. 16 clients).



It is recommended to limit the number of clients (e.g. < 5), since a large number of clients creates a rather heavy load on the MX server.

5. Enter the initial value of the TCP/IP port range in the field for **TCP/IP port range**.
→ The end value of the TCP/IP port range is determined automatically. It depends on the **max. clients** value: two ports are needed for each client.
6. Click **OK**.
7. Answer **Yes** in the confirmation dialog.
→ Your settings are saved. The SISTORE MX application software will close.

6.3 Limiting bandwidth



The limitation of bandwidth can have the consequence that the SISTORE MX client reacts very slowly to commands of a SISTORE RemoteView client.

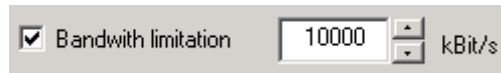


Fig. 32 "Bandwidth limitation" checkbox on the "Network"

Prerequisite:

- The SISTORE unit is connected to the network.

See Section 8.4 Configuring image parameters.

1. Select the **Network** tab.
2. Mark the checkbox **Bandwidth limitation**.
3. In the **kBit/s** text field, enter the maximum bandwidth that the SISTORE MX application software is to use for a connection to a SISTORE RemoteView client.
4. Click **Apply**.
→ The setting will be saved.

6.4 Configuring ISDN dial-in



Use the ISDN modem AVM FRITZ! USB v2.0.

We cannot guarantee proper function with other ISDN modems that have not been tested by us.

The SISTORE MX application software reacts only to ISDN calls with the service indicator for **data**. Thus SISTORE RemoteView or the SISTORE MX application software can be operated on an ISDN connection in parallel to ISDN devices with other service indicators.

6.4.1 Accept all incoming calls

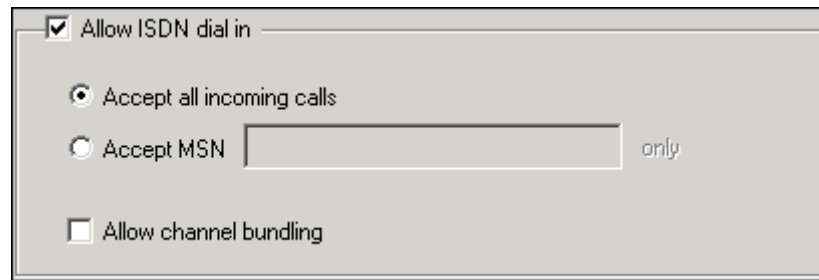


Fig. 33 "Accept all incoming calls" option on the "Network" tab

Prerequisites:

- The SISTORE unit is connected to the ISDN line. See Section 8.4 Configuring image parameters.
- An ISDN modem is connected to the SISTORE unit.

1. Select the **Network** tab.
2. Mark the checkbox **Allow ISDN dial-in**.
3. Click the option field **Accept all incoming calls**.
4. Click **Apply**.

→ Your settings will be saved.

6.4.2 React to certain multiple subscriber numbers

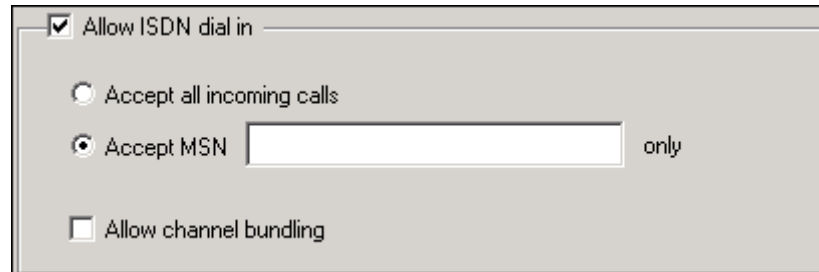


Fig. 34 "Accept MSN only" option on the "Network" tab

Prerequisites:

- The SISTORE unit is connected to the ISDN line.
See Section 8.4 Configuring image parameters.
- An ISDN modem is connected to the SISTORE unit.

1. Select the **Network** tab.
2. Mark the checkbox **Allow ISDN dial-in**.
3. Click the option **Accept MSN ... only**.
4. Enter the desired multiple subscriber number in the **Accept MSN ... only** text field.
5. Click **Apply**.

→ Your settings will be saved.

6.4.3 Activating channel bundling

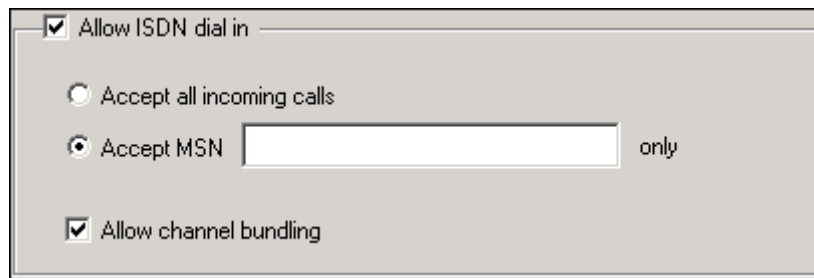


Fig. 35 "Allow channel bundling" checkbox on the "Network" tab

Prerequisites:

- An ISDN modem is connected to the SISTORE unit.
- Allow ISDN dial-in is configured.

See Section 6.4.1 Accept all incoming calls and Section 6.4.2 React to certain multiple subscriber numbers.

1. Select the **Network** tab.
2. Mark the checkbox **Allow channel bundling**.
3. Click **Apply**.
 - The setting will be saved.

6.5 Configuring the live image server

With SISTORE WebView you can access the live images and recordings of one or more SISTORE units. To do so, enter an IP address and port number in the SISTORE MX application software.

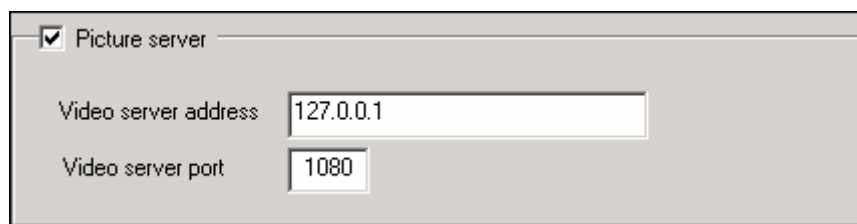


Fig. 36 "Picture server" checkbox on the "Network" tab

Prerequisite:

- The SISTORE unit is connected to the network.
- See Section 8.4 Configuring image parameters.

1. Select the **Network** tab.
2. Mark the checkbox **Picture server**.
3. Enter the IP address of the image server in the **Video server address** text field.
4. Enter the port number of the image server in the **Video server port** text field.
5. Click **Apply**.
 - Your settings will be saved.

6.6 Controlling network access

6.6.1 Adding a connection filter



Please note when setting up filters for multiple subscriber numbers (MSNs) that these are communicated differently depending on the telephone system. The formulation of a filter must match the transmission method of your telephone system.

You can refuse certain telephone numbers and IP addresses network access to the SISTORE MX application software. To do this set up an appropriate connection filter in the Reject incoming calls list field. Wildcards (*) can be used to group IP addresses or telephone numbers.

In order to make an exception for a telephone number or IP address in a group of banned telephone numbers or IP addresses, add a connection filter for it to Allow incoming calls.

Example:

In the list field Reject incoming calls set up the connection filter 127.* and in the list field Allow incoming calls set up the connection filter 127.0.0.99.



IP addresses or telephone numbers for which a connection is refused receive **no notification** or **no error message**.

- ➔ None of the IP addresses beginning with 127. are allowed to access the SISTORE MX application software except the IP address 127.0.0.99.

Allow connection

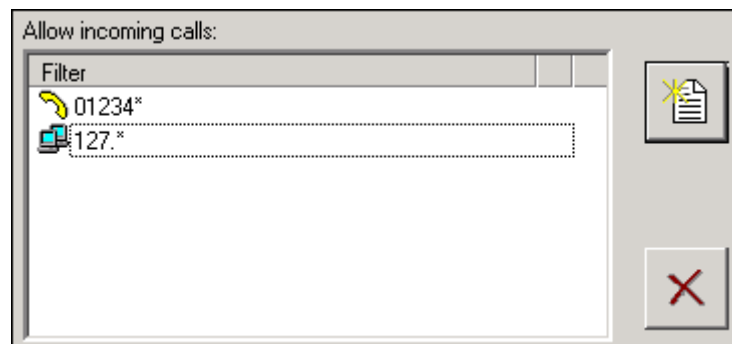


Fig. 37 "Allow incoming calls" filter list on the "Network" tab

Prerequisite:

- The SISTORE unit is connected to the network. See Section 8.4 Configuring image parameters.

1. Select the **Network** tab.
2. Mark the checkbox **Filter incoming calls**.
3. Click the **Add**  next to the filter list **Allow incoming calls**.
 - ➔ A new text field will be created in the **Allow incoming calls** filter list.
4. Enter the telephone number or IP address that you want to allow in the new text field.
 - ➔ Repeat steps 3 and 4 as often as required if you want to create multiple connection filters.

5. Click **Apply**.
→ The setting will be saved.

Reject connection

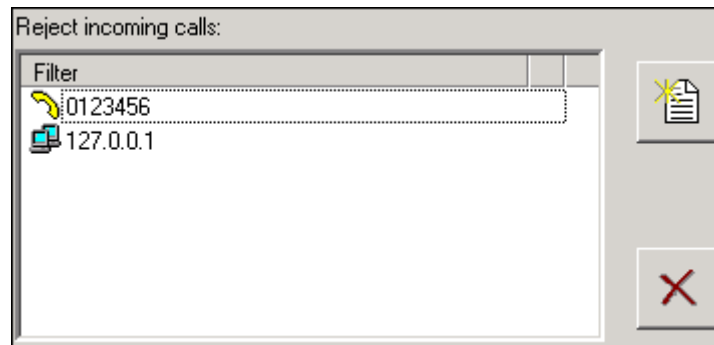


Fig. 38 "Reject incoming calls" filter list on the "Network" tab

Prerequisite:

- The SISTORE unit is connected to the network.
See Section 8.4 Configuring image parameters.

1. Select the **Network** tab.
2. Click the **Add**  next to the filter list **Reject incoming calls**.
→ A new text field will be created in the **Reject incoming calls** filter list.
3. Enter the telephone number or IP address that you want to block in the new text field.
→ Repeat steps 3 and 4 as often as required if you want to create multiple connection filters.
4. Click **Apply**.
→ The setting will be saved.

6.6.2 Editing connection filters



Fig. 39 "Filter" text field on the "Network" tab

Prerequisite

- The SISTORE unit is connected to the network.
See Section 8.4 Configuring image parameters.

1. Select the **Network** tab.
2. Click on the connection filter you want to edit.
→ The text field will be framed.
3. Edit the connection filter.
4. Click **Apply**.
→ The setting will be saved.

6.6.3 Deleting connection filters

Deleting an individual connection filter



Fig. 40 Connection filter text field on the "Network" tab

Prerequisite:

- The SISTORE unit is connected to the network.
See Section 8.4 Configuring image parameters.

1. Select the **Network** tab.
2. Click on the connection filter you want to delete.
→ A **Delete** button  will be displayed to the right of the connection filter.
3. Click on **Delete**.
→ The selected connection filter will be removed from the filter list.
4. Click **Apply**.
→ The setting will be saved.

Deleting all connection filters

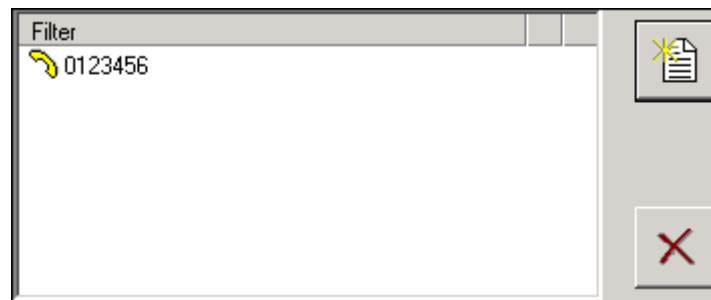


Fig. 41 Filter list on the "Network" tab

Prerequisite:

- The SISTORE unit is connected to the network.
See Section 8.4 Configuring image parameters.

1. Select the **Network** tab.
2. Click the **Delete**  next to the filter list for which you want to delete the filters.
3. Confirm the message that follows with **OK**.
4. If you no longer want to use connection filters: Unmark the checkbox **Filter incoming calls**.
5. Click **Apply**.
→ The setting will be saved.

6.7 Setting the LAN connection speed

Prerequisite:

- The SISTORE unit is connected to the network. Further information on this can be found in the SISTORE MX / MX 3G Installation Manual.

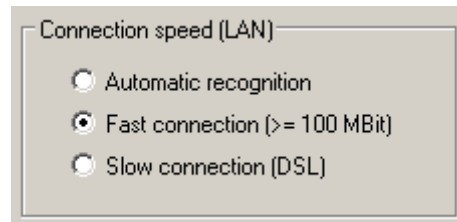


Fig. 42 "Connection speed (LAN)" group field



We recommend not to select **Automatic recognition**.

1. Select the **Network** tab.
2. Select whether you want to use a fast (≥ 100 MBit) or a slow (< 100 MBit) connection in the **Connection speed (LAN)** group field.
3. If you do not know the connection speed, select **Automatic recognition**.
 - The speed will be recognized automatically.
4. Click **Apply**.
 - The settings will be saved.

6.8 Setting the maximum live image resolution

In order to reduce the CPU load of the server and the network load when transmitting pictures from a SISTORE unit to a RemoteView client, the max. resolution of the pictures to be transmitted can be defined.

Prerequisite:

- The SISTORE unit is connected to the network. Further information on this can be found in the SISTORE MX / MX 3G Installation Manual.

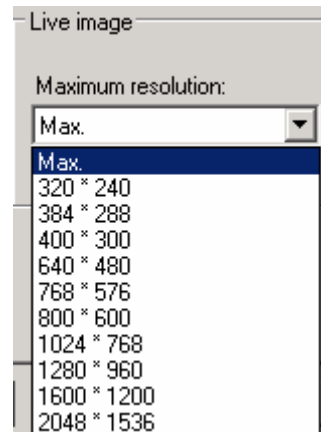


Fig. 43 "Live image" group field

1. Select the **Network** tab.
2. Select the desired max. resolution in the **Live image** group field (see Fig. 43).



If the option **Max.** is selected, the images will always be transmitted with the highest resolution.

3. Click **Apply**.
→ The settings will be saved.

7 Analog camera configuration

7.1 Adding an analog camera

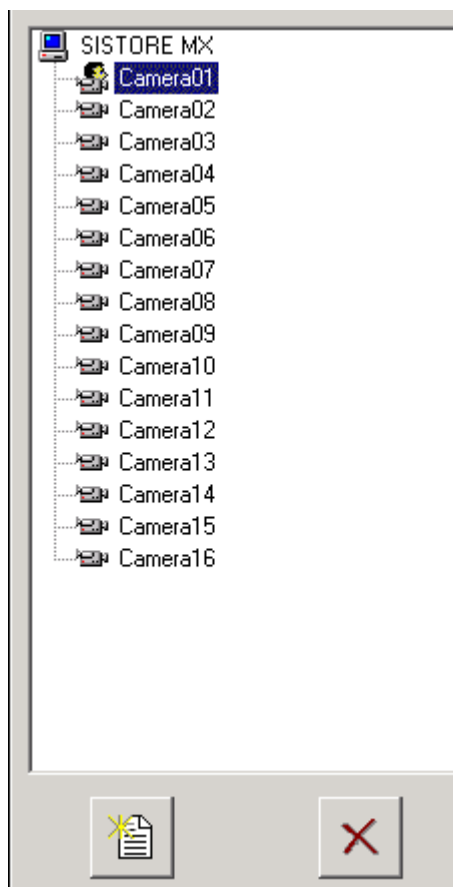


Fig. 44 Camera list on the "Cameras" tab

Prerequisite:

- At least one analog camera is connected to the SISTORE unit. Further information on this can be found in the SISTORE MX / MX 3G Installation Manual.

1. Select the **Cameras** tab.

2. Click the **Add** button .

→ A camera will be added in the camera list.

3. Enter a name for the camera in the **Name** text field.

4. Enter a short description, such as information on the camera position, in the **Description** text field.

5. In the **Input** field, select the number of the camera connection used by the relevant camera.

6. Click **Apply**.

→ Your settings will be saved.

7.2 Deleting an analog camera

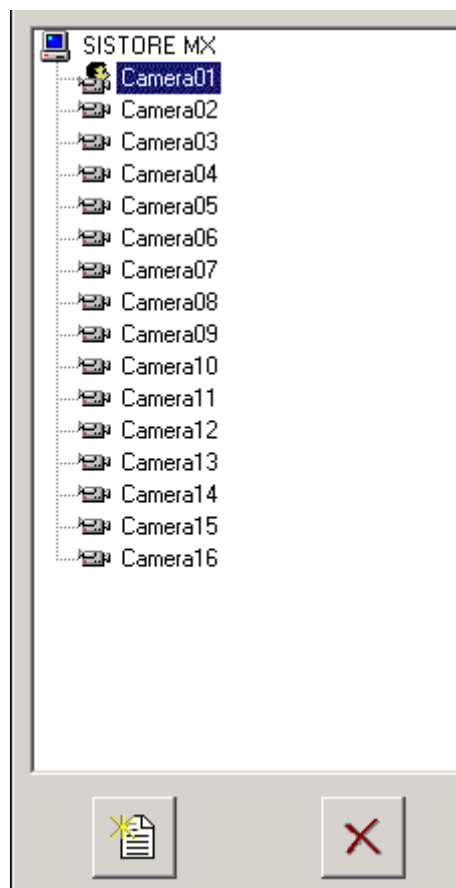


Fig. 45 Camera list on the "Cameras" tab

1. Select the **Cameras** tab.
2. Select the camera you want to delete from the cash box list.
3. Click the **Delete** button .
4. Confirm the message that follows with **OK**.
5. Click **Apply**.
 - The setting will be saved.

7.3 Configuring image parameters

Setting brightness, contrast and colour saturation

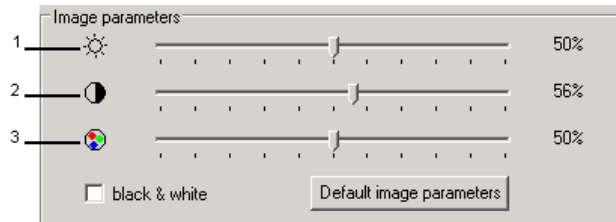


IMPORTANT

Malfunction due to too dark live image

With an image brightness of 0, the SISTORE MX receives only black images. Motion detection no longer functions.

- Select the standard setting 50 %.



1	Brightness
2	Contrast
3	Colour saturation

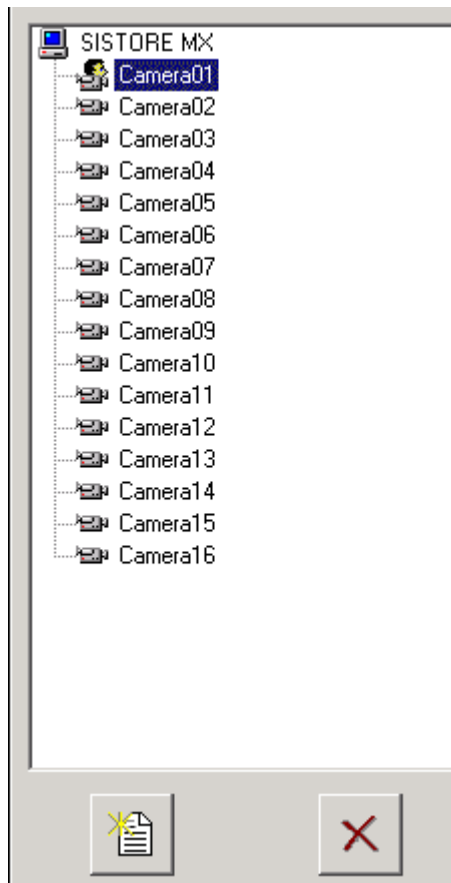


Fig. 46 Camera list on the "Cameras" tab

Prerequisite:

- At least one analog camera is in the camera list. See Section 7.1 Adding an analog camera.

1. Select the **Cameras** tab.
2. Select the camera for which you want to configure the image parameters from the camera list.
3. Move the slide control to the right or left as desired.



If the selected analog camera is a black-and-white camera, mark the checkbox **black & white**. Then it is not necessary to set the colour saturation.

4. Click **Apply**.
→ The setting will be saved.

7.4 Selecting the video standard



The video standard is defined for all analog cameras in the camera list; mixed operation of PAL and NTSC cameras is not possible.

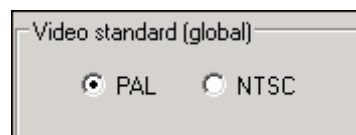


Fig. 47 "Video standard (global)" group field on the "Cameras" tab

1. Select one of the two video standards (PAL or NTSC) (see Fig. 47).
2. Confirm both messages that follow with **OK**.
→ The setting will be saved.

7.5 Configuring the live image display

Prerequisite:

- At least one analog camera is in the camera list. See Section 7.1 Adding an analog camera.

Always display live images

1. Select the **Cameras** tab.
2. Select the desired camera in the camera list.
3. Mark the checkbox **Always visible**  **always visible**.
4. Click **Apply**.
→ The setting will be saved.



If this checkbox is not marked, no live images will be shown in display mode if no local user is logged in.

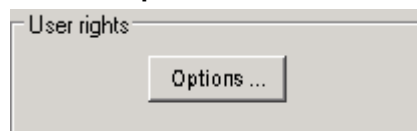
Show live images on external video monitor

1. Select the **Cameras** tab.
2. Select the desired camera in the camera list.
3. Mark the checkbox **External video monitor** .
4. Click **Apply**.
 - The setting will be saved.
 - In the **Video output** tab, the live images of the selected camera can be activated on an external monitor. In display mode, you can select a video output on which the live image of this camera is to be activated by right-clicking on the live image.

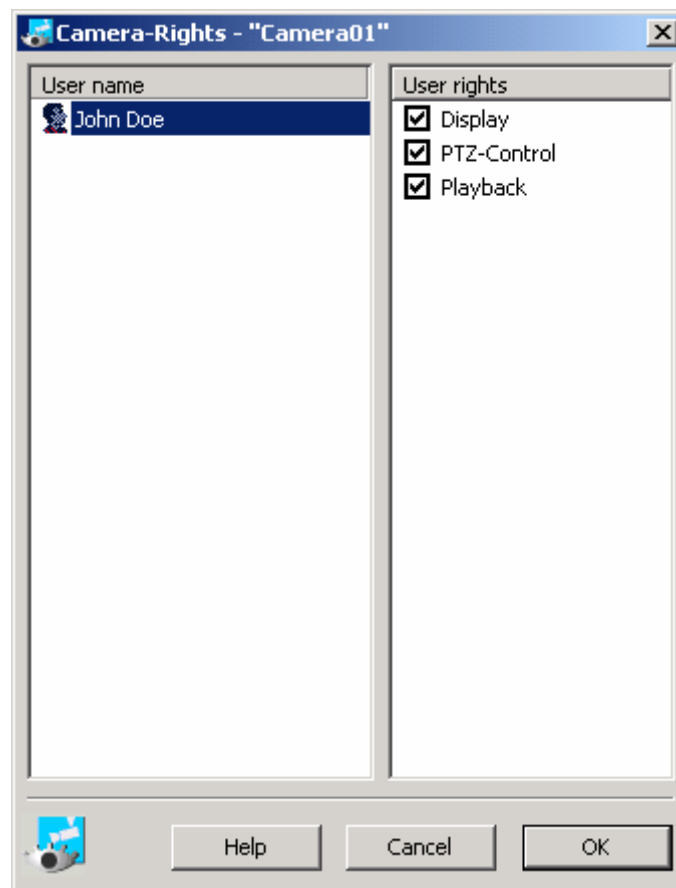
Display user-dependent live images

Here you can define which users are permitted to view the live image of a particular analog camera. Users whose camera rights were not defined have no access to the live image and recordings of this analog camera, also not via SISTORE RemoteView and not via monitors connected to a video output.

1. Select the **Cameras** tab.
2. Select the desired camera in the camera list.
3. Click the **Options ...** button in the group field **Rights**.



→ The following dialog box opens.



4. Select the user in the **user name** field.
5. In the **user rights** field, select or deselect the checkboxes as desired.
6. Repeat steps 8 and 9 as often as required.



If a new user is created, this user automatically receives the same rights for each camera as the user who created the new user.

If a new camera is created, all users automatically receive all rights for this camera at first. If individual users are not to have all rights for the camera, these rights must be manually revoked after setting up the camera.

7. Click **OK**.
8. Click **Apply**.
 - The setting will be saved.

7.6 Configuring sound recording for an analog camera

The audio input (MIC or LINE) can be assigned to a camera (analog camera or LAN camera). See Section 8.6 Configuring sound recording for a LAN camera.



The audio mixer of the operating system must be set correctly so that a recording can be made (recording level, selection of the correct audio input).

If you are performing a search while recording is in progress, you have to wait about 10 min. until the recorded sound can be reproduced. After this time the first recording file will be completed and sound can be reproduced.

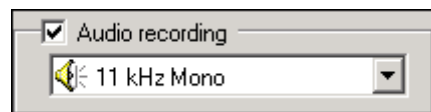


Fig. 48 "Audio recording" group field on the "Cameras" tab

Prerequisite:

- At least one analog camera is in the camera list. See Section 7.1 Adding an analog camera.

1. Select the **Cameras** tab.
2. Mark the checkbox **Audio recording**.
3. Select the sound quality from the dropdown list.
4. Click **Apply**.
 - The setting will be saved.

7.7 Configuring pan/tilt control



An analog camera may possibly first need to be released via DIP switches or in the proprietary camera configuration in order to control it via a serial protocol. Please note the relevant information in the camera manual or information from the camera manufacturer.

SISTORE MX supports the protocols of the following analog cameras:

DM Dennard 2060
Fastrax 2
Fastrax 2E
Ganz ZC-S123P
Molynx
Panasonic WV-CS850
Panasonic WV-CS570
Panasonic WV-950
Pelco Spectra III Se
Samsung SCC-643(P)
Sanyo VCC9300
Sensormatic SpeedDome Ultra I
Sensormatic SpeedDome
Sensormatic
Siemens CCAS1415 Molynx
Siemens CCAS1415 Siemens-S
Siemens CCAD1410
Siemens CCDA1415
Siemens CCDA1425/1435
Siemens CCDS1415
Siemens CCD2410
Siemens Mini Dome
Siemens SCU22
Sony Evi-D30/D70
TP-D7720

Tab. 1 Analog cameras or protocols supported by SISTORE MX

Since different cameras from a manufacturer often use the same protocol, the list of cameras or protocols above may cover more cameras than shown in the list.

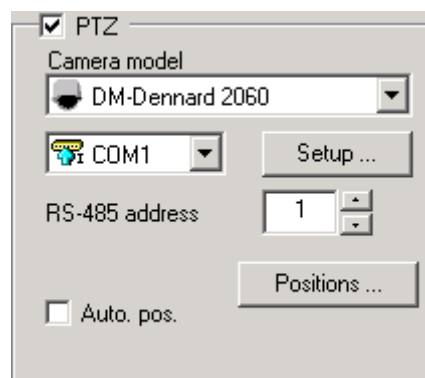


Fig. 49 "PTZ" group field on the "Cameras" tab

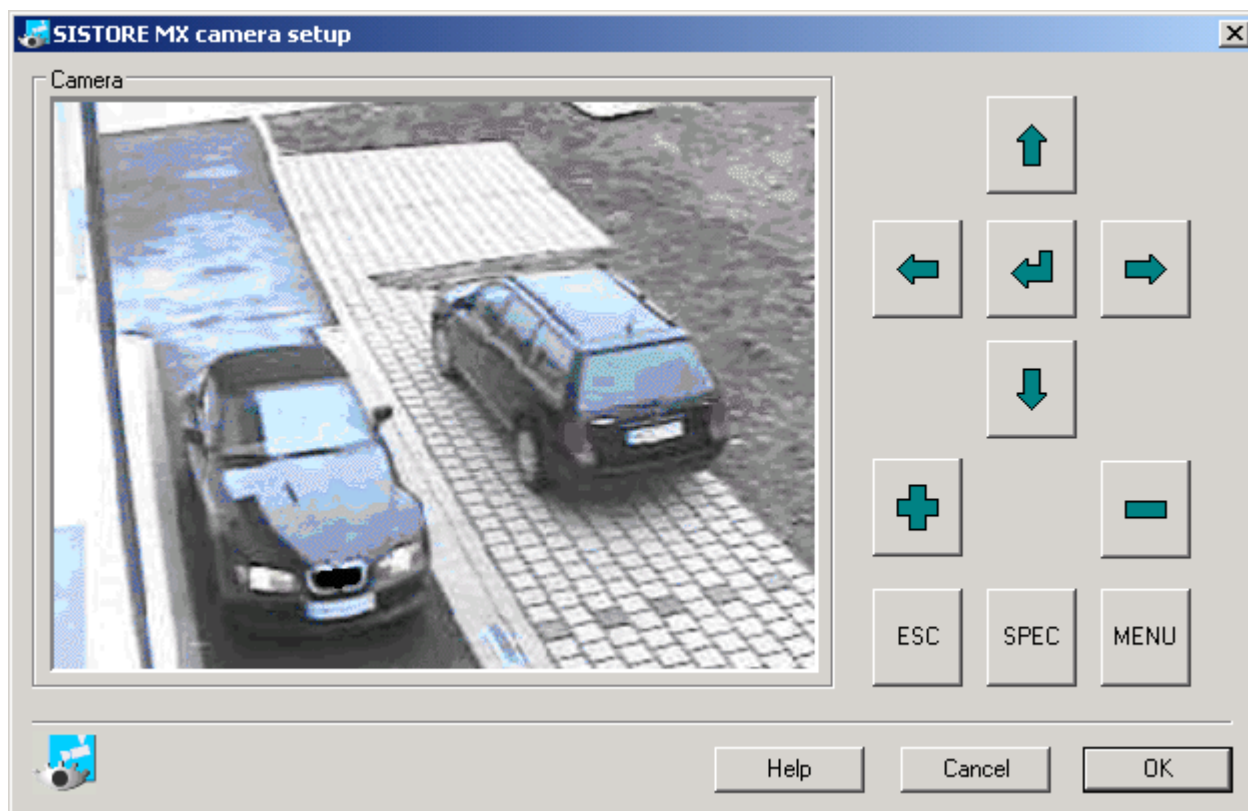


Fig. 50 "SISTORE MX camera setup" dialog box opened with the "Setup .." button on the "Cameras" tab

Prerequisite:

- At least one controllable analog camera is in the camera list. See Section 7.1 Adding an analog camera.

1. Select the **Cameras** tab.
2. Select the camera for which you want to configure the pan/tilt control from the camera list.
3. Mark the checkbox **PTZ**.
4. Select an appropriate camera type for your camera from the **Camera model** drop-down list.
5. Select the COM interface of the camera from the COM drop-down list.
6. Select the RS-485 address of the camera in the **RS-485 address** field.

7. Click **Setup...**
 - The **SISTORE MX camera setup** window will be opened (see above).
 - If there is one, the proprietary configuration interface for the camera will be opened and display over the live image. Information on using the configuration interface will be found in the camera manual.
8. Set up the camera using its proprietary configuration interface and/or via the **SISTORE MX camera setup** functions.
 - The arrow buttons as well as the **+**, **-**, **ESC**, **SPEC** and **MENU** buttons are used to control the menus for the cameras. Depending on the camera type, the designations of the buttons do not correspond to those of the respective camera. The operating interface was designed as an all-purpose interface to be able to control all cameras with it as much as possible.
9. Close the camera's proprietary configuration interface if applicable.
10. Click **OK** in the **SISTORE MX camera setup** dialog.
11. Click **Apply** on the Cameras tab.
 - Your settings will be saved.

7.8 Configuring automatic camera positioning

SISTORE MX supports the protocols of various PTZ analog cameras.

See Section 7.7 Configuring pan/tilt control.

Defining camera positions



Depending on the camera up to 32 positions can be defined. The positions are saved in the camera. To ensure that several SISTORE MX servers can use the PTZ function simultaneously, version 2.60 or higher must be installed on all servers.

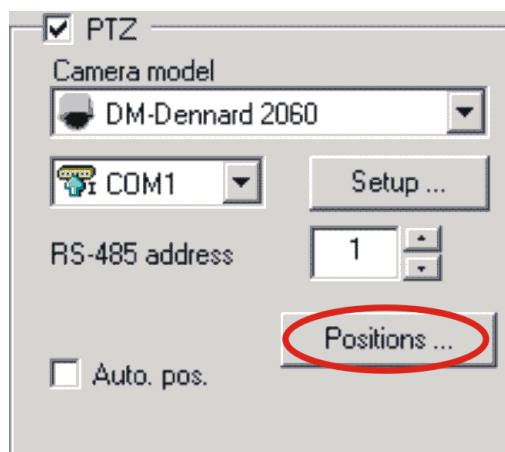


Fig. 51 "Positions..." button on the "Cameras" tab

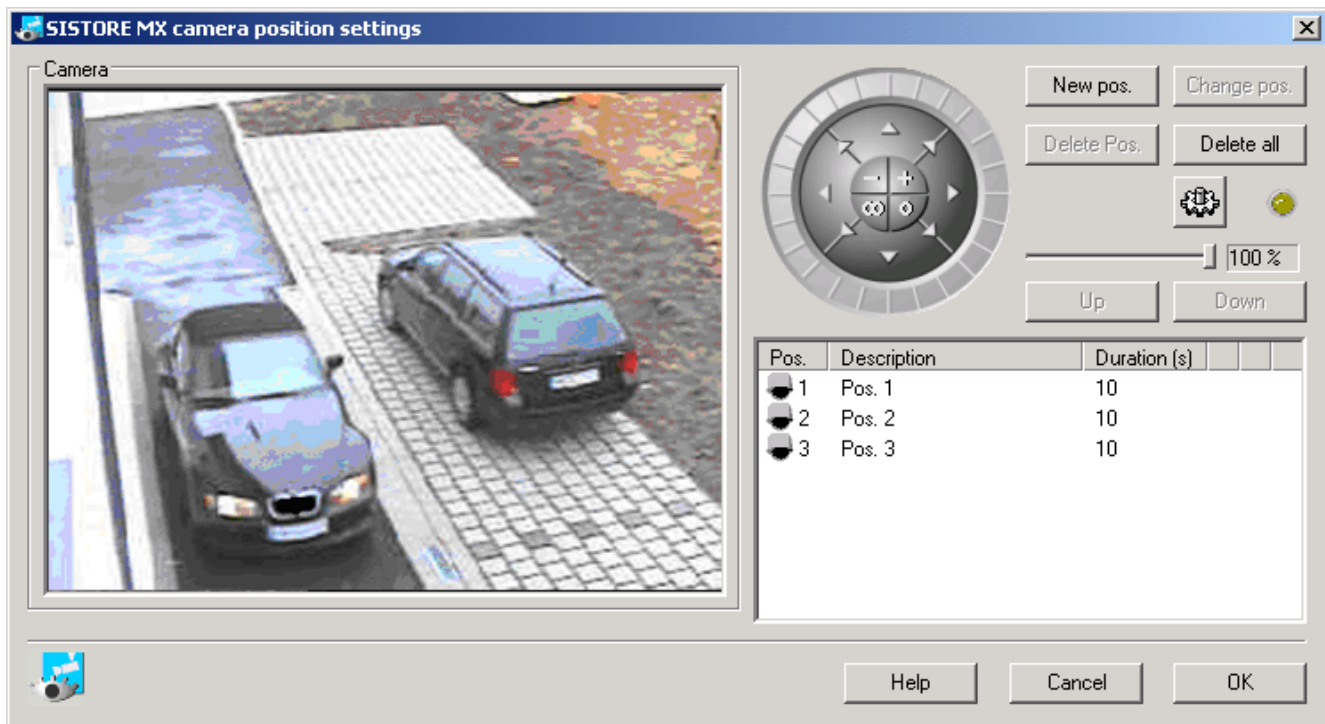
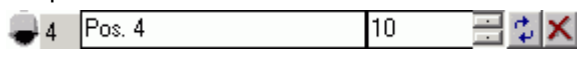


Fig. 52 The "SISTORE MX camera position settings" dialog opened with the "Positions..." button on the "Cameras" tab

Prerequisite:

- At least one controllable analog camera is in the camera list. See Section 7.1 Adding an analog camera.

1. Select the **Cameras** tab.
2. Select the camera for which you want to configure the camera positioning from the camera list.
3. Mark the checkbox **PTZ**.
4. Click the **Positions ...** button (see above).
 - The **SISTORE MX camera positions settings** dialog will be opened (see above).
5. Move the camera to the desired position with the mouse via the control element , with the keyboard or with a joystick.
6. Click **New pos.** to save a position or on **Change pos** to replace a position.
7. Click on the new position in the position list.
 - The position will be framed. 
8. Enter a position name in the **Description** text field.
9. Select the duration of the position display in the **Duration (s)** text field.
10. Click **OK**.
11. Click **Apply** on the **Cameras** tab.
 - Your settings will be saved.

→ The following functions are available in this dialog.

Additional functions	
Control element 	Camera control (pan, tilt, zoom). The speed is set by moving the red dot with the mouse.
Delete pos. button	Deletes the selected position
Delete all button	Delete all positions in the position list Please note: The positions will be deleted without confirmation!
Button 	Start/stop automatic PTZ position cycle
LED icon 	If the LED icon is bright yellow, the camera is being controlled
Up button	Moves the selected position up in the position list
Down button	Moves the selected position down in the position list

Activating automatic positioning (patrol)

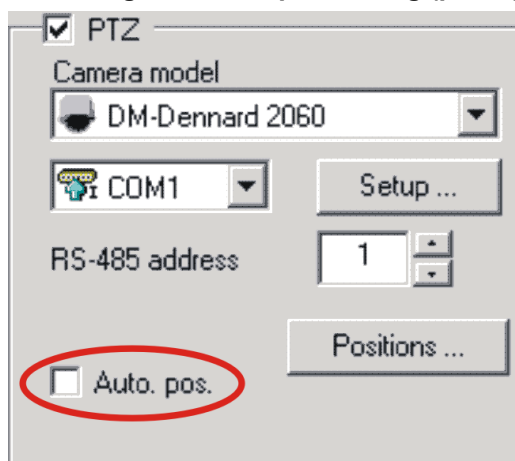


Fig. 53 "Auto. pos." checkbox on the "Cameras" tab

Prerequisites:

- At least one controllable analog camera is in the camera list. See Section 7.1 Adding an analog camera.
- At least two camera positions have been defined for the selected camera. See Section 7.8 Configuring automatic camera positioning

1. Select the **Cameras** tab.
2. Mark the checkbox **PTZ**.
3. Configure the pan/tilt control. See Section 7.7 Configuring pan/tilt control.
4. Define the positions (see above).
5. Mark the checkbox **Auto. pos.**
6. Click **Apply**.
→ The setting will be saved.

7.9 Transferring recording settings

In the **Cameras** context menu you can specify that a particular recording setting or all recording settings be transferred to all other cameras.

Prerequisites:

- The SISTORE MX application software has been started.
See Section 5.16 Starting the SISTORE MX application software and logging in.
The SISTORE MX application software is in configuration mode. See Section 5.17 Opening configuration mode.

1. Select the **Cameras** tab.
2. Right click on a configured camera in the camera list.
→ The **Camera** context menu will open.
3. Select **Copy settings**.
→ The context submenu will open.
4. Select the desired submenu item.
5. Click **Apply**.
→ The setting will be saved.

7.10 Selecting camera types



This function is only available if bank mode is activated. See Section 20.1 Enabling bank mode.

The following camera types are available for selection:

- Room camera (standard setting)
- Cash box camera:
The frame rate must be at least 1 image/second for ring recording, at least 2 images/second for holdup recording.
Cash box cameras may not have a PTZ control.
- Automated teller camera:
No pan/tilt control and no motion detection can be used in conjunction with this camera type.

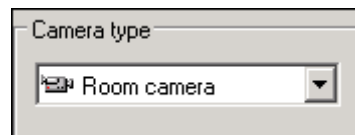


Fig. 54 List box "Camera type" on the "Cameras" tab

Prerequisite:

- At least one analog camera is in the camera list. See Section 7.1 Adding an analog camera
1. Select the **Cameras** tab.
 2. Select the desired camera type in the **Camera type** list box.
 3. Click **Apply**.
→ The setting will be saved. The camera icon of the particular camera in the camera list will change according to the selected camera type.

7.11 Generate reference image

A reference frame documents the setting of a camera (frame cut-out) at the time when a reference frame was generated. Following installation and alignment of the camera, the displayed reference frame section can be held and compared at any time with the camera's current display locally on the server or by remote access with RemoteView.

Prerequisite:

- At least one analog camera is in the camera list. See Section 7.1 Adding an analog camera.

1. Select the **Cameras** tab.
2. Select the desired camera in the camera list.
3. Click **Save reference image**.
 - The reference image is saved.



The reference images are stored in the SISTORE MX main directory (e.g. C:\Programs\SIEMENS\SISTORE MX) under the name camrefx.jpg, where x stands for the camera number.

When saving a reference image for an analog camera you may be asked whether you want to overwrite an existing reference image, even if there is none yet. In that case confirm with Yes to generate the reference image.

8 Configuring LAN cameras

8.1 General information on LAN cameras

Be aware of the following when using LAN cameras:

- Multiple users can access LAN cameras simultaneously. Simultaneous access by multiple users lowers the frame rate.
- Settings made by a user on a LAN camera, such as modifying the image parameters via a browser, have system-wide effects.

SISTORE MX supports the following LAN cameras:

Arecont	Vision 1300, Vision 2100, Vision 3130 Day, Vision 3130 Night
Axis	205, 206/W, 206M, 207MW, 209FD, 210, 211, 211M, 212 PTZ, 213 PTZ, 216FD, 216MFD, 221, 223M, 225FD 231D+, 232D+, 233D, 240Q, 241Q, 241S, Generic HTTP Interface V1.0, VAPIX Interface
CBC	MP2A, MP3DN Day, MP3DN Night
Convision	VISTABOX 6XX
Dallmeier	DF3000 IP
Digilan	TV7214
Eneo	ENC-1003L
IQ invasion	IQ501, IQ510, IQ511, IQ603, IQ 752, IQ753, IQ755
JVC	VN-C10U; VN-C30U, VN-C625U, VN-C655U
Lumenera	LE175C, LE275C, LE375C
Mobotix	D12 one or two cameras, M1 Models, M10 Models, M10D-Night, M12 Models, M12D-Night, M22M
Panasonic	KX-HCM-280, WV-NF284, WV-NM100/G, WV-NP1000, WV-NP244E, WV-NP472, WV-NS202, WV-NS320, WV-NW470, WV-NW960
Pixord	205
Samsung	SNC-L200
Siemens	CCIC1410, CCIS1337-LP, CCIX1345, CFVA-IP, CVVA-IP, CFMC1315 LP, CCID1410, CCMC1315 LP, TELSCAN WEB Server
Sony	Generic HTTP interface, SNC-CS11, SNC-CS3P, SNC-DF40P, SNC-M1/W, SNC-M3/W, SNC-P1, SNC-P5, SNC-RZ25P, SNC-Z30P/2, SNC-RZ50P, SNC-Z20P, SNT-V704
Toshiba	IK-WB21A
VINWP1	2051
Vivotek	MJPEG Models, PZ6122, VS2402, IP7138

Depending on the functional scope of the LAN camera, many operating elements of the **LAN cameras** tab may be disabled.

The SISTORE MX can handle mixed operation (various LAN cameras) and hybrid operation (analog cameras and LAN cameras). Altogether a maximum of 32 LAN cameras can be connected.

SISTORE MX handles LAN cameras like local analog cameras. **Limitation:** LAN cameras cannot be connected to analog video outputs.

Access to LAN cameras takes place with significantly greater **latency** than access to analog cameras. The reason for this is the greater communication load between the SISTORE MX and a LAN camera.

LAN cameras cause a significantly higher processor load of the SISTORE MX than analog cameras. The frame rates required are the determining factor.

The operation of the system can be slow if all connections for analog cameras (32) and LAN cameras (32) are used.



To keep the processor load below 90 %, we recommend setting the resolution of LAN cameras low (CIF format). The image quality should be set to approximately 70 %. See Section 8.4 Configuring image parameters.

Exact specifications for the image quality and the required hard drive capacity are not possible with LAN cameras, since each LAN camera has different quality levels and interprets specifications differently.

8.2 Adding a LAN camera

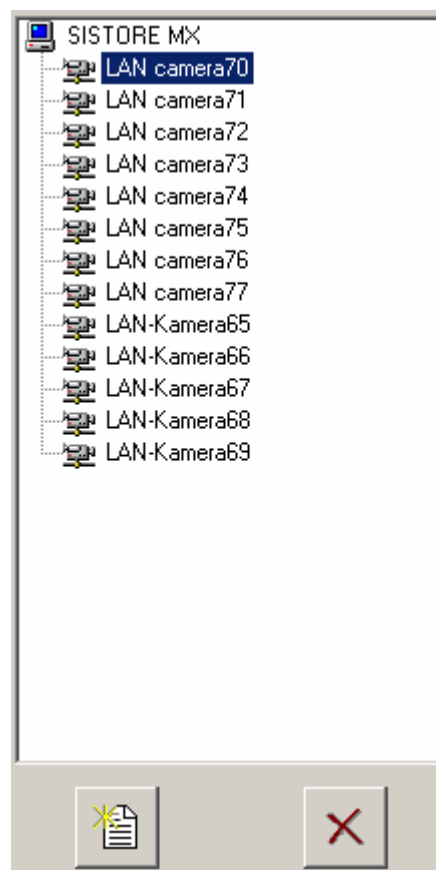


Fig. 55 Camera list on the "LAN cameras" tab

Prerequisite:

- At least one LAN camera is connected to the SISTORE MX.

1. Select the **LAN cameras** tab.



2. Click the **Add** button

→ A LAN camera will be added in the camera list.

3. Enter a name for the camera in the **Name** text field.

4. Enter a short description in the **Description** text field , e.g. information on the camera position and the internal camera ID.
(For example: Door_1-Cam66).

5. Make the appropriate settings in the following fields:

- Camera model / protocol
- TCP/IP
- Image quality and size

6. Repeat steps 2-5 for each camera.

7. Click **Apply**.

→ Your settings will be saved.



The "Service" functions are only available to users with administrator rights.

Adding LAN cameras via the video server

In conjunction with the video servers AXIS 241Q, AXIS 241S and Telscan Web, 4 analog signals can be converted into 4 digital signals. This allows you to configure 4 LAN cameras with the same IP address.

Prerequisite:

- The analog cameras are connected to the video server.

1. Add the LAN cameras as described above.

2. Select the desired video inputs of the analog cameras in the **Video input** group field.

3. Click **Apply**.

→ Your settings will be saved.

8.3 Deleting LAN cameras

Prerequisite:

- At least one analog camera is in the camera list. See Section 8.2 Adding a LAN camera.

1. Select the **LAN cameras** tab.
2. Select the camera you want to delete from the camera list (see Fig. 55).



3. Click the **Delete** button.
4. Confirm the message that follows with **OK**.
5. Click **Apply**.
 - The setting will be saved.

8.4 Configuring image parameters

Setting brightness, contrast and colour saturation

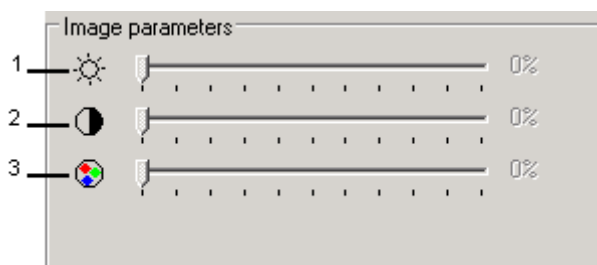


IMPORTANT

Malfunction due to too dark live image

With an image brightness of 0, the SISTORE MX receives only black images. Motion detection no longer functions.

- Select the standard setting 50 %.



1	Brightness
2	Contrast
3	Colour saturation



The slide controls for the image parameters are not activated for every LAN camera. For some LAN cameras the image parameters are instead set on the camera.

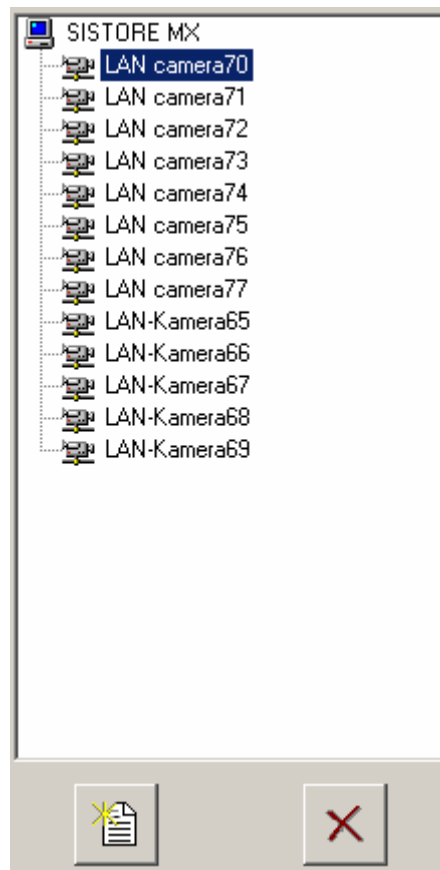


Fig. 56 Camera list on the "LAN cameras" tab

Prerequisite:

- At least one analog camera is in the camera list. See Section 8.2 Adding a LAN camera.

1. Select the **LAN cameras** tab.
2. Select the camera for which you want to configure the image parameters from the camera list.
3. Move the slide control to the right or to the left.
4. Click **Apply**.
→ The setting will be saved.

Setting image quality and resolution



- The higher the image quality, the less the image is compressed and the more network bandwidth is required for its transmission.
- Which image sizes are available depends on the LAN camera used.
- The transmission of live images from SISTORE MX to SISTORE RemoteView takes place independent of the image size set in CIF format (352 x 288 pixels).

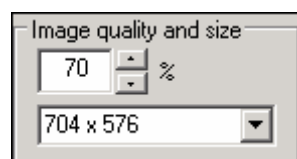


Fig. 57 "Image quality and size" group field on the "LAN cameras" tab

Prerequisite:

- At least one analog camera is in the camera list. See Section 8.2 Adding a LAN camera.
1. Select the **LAN cameras** tab.
 2. Select the camera for which you want to configure the image quality and size from the camera list.
 3. Enter the image quality in the text field %.
 4. Select the image size from the dropdown list.
 5. Click **Apply**.
 - The setting will be saved.

8.5 Configuring the live image display



It is not possible to connect LAN cameras to a video output of the SISTORE MX.

Prerequisite:

- At least one analog camera is in the camera list. See Section 8.2 Adding a LAN camera.

Always display live images

1. Select the **LAN cameras** tab.
2. Select the desired camera in the camera list.
3. Mark the checkbox **always visible** ☒ always visible
4. Click **Apply**.
 - The setting will be saved.

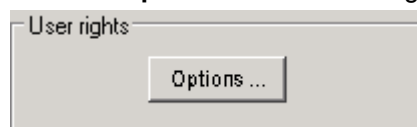


If this checkbox is not marked, no live images will be shown in display mode if no local user is logged in.

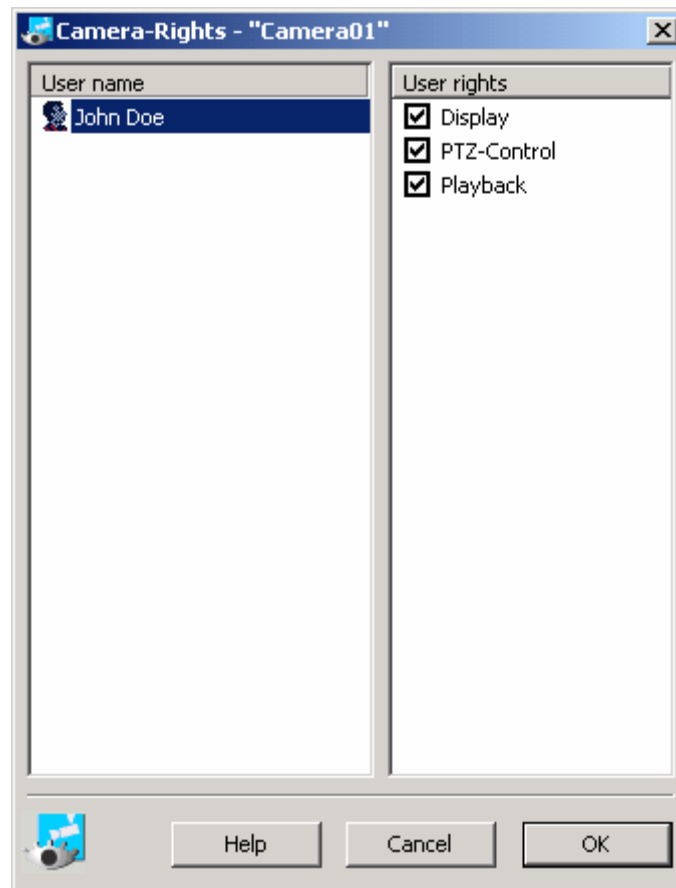
Display user-dependent live images

Here you can define which users are permitted to view the live image of a particular LAN camera. Users whose camera rights were not defined have no access to the live image and recordings of this LAN camera, also not via SISTORE RemoteView.

1. Select the **LAN cameras** tab.
2. Select the desired camera in the camera list.
3. Click the **Options...** button in the group field **User rights**



→ The following dialog box opens.



4. Select the user in the **user name** field.
5. In the **user rights** field, select or deselect the checkboxes as desired.
6. Repeat steps 3 and 4 as often as required.



- If a new user is created, this user automatically receives the same rights for each camera as the user who created the new user.
- If a new camera is created, all users automatically receive all rights for this camera at first. If individual users are not to have all rights for the camera, these rights must be manually revoked after setting up the camera.

7. Click **OK**.
8. Click **Apply**.
 - The setting will be saved.

8.6 Configuring sound recording for a LAN camera

8.6.1 Configuring sound recording via audio input



The audio inputs of the SISTORE unit MX 3G / MX 3G DVD are not yet supported.

The audio input (MIC or LINE) can be assigned to a camera (analog camera or LAN camera). See Section 7.6 Configuring sound recording for an analog camera.



The audio mixer of the operating system must be set correctly so that a recording can be made (recording level, selection of the correct audio input). Sound (audio in) can be recorded using either an external microphone or a microphone that is integrated in the camera.

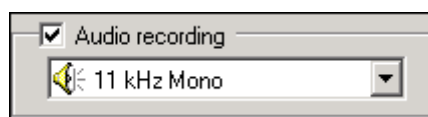


Fig. 58 "Audio recording" group field on the "Cameras" tab

Prerequisite:

- At least one analog camera is in the camera list. See Section 8.2 Adding a LAN camera.

1. Select the **LAN cameras** tab.
2. Mark the checkbox **Audio recording**.
3. Select the sound quality from the dropdown list.
4. Click **Apply**.
→ The setting will be saved.

8.6.2 Configuring sound recording via network connection

It is possible to record several audio streams of various LAN cameras simultaneously via a network connection.



Audio recording is supported by the Siemens camera types CCID1410, CFMC1315 and CCMC1315 as well as by those Axis cameras which are addressed via the VAPIX API.

Prerequisites:

- At least one analog camera is in the camera list. See Section 8.2 Adding a LAN camera.
- The camera model supports audio transmission via a network connection.

1. Select the **Cameras** tab.
2. Mark the checkbox **Audio recording**.
3. Select **Camera** in the list box.
4. Click **Apply**.
→ The setting will be saved.

8.7 Selecting the frame rate

The maximum frame rate is 100 images per second, distributed between 32 LAN cameras max.

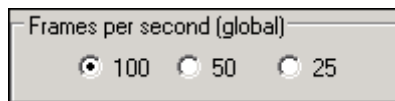


Fig. 59 "Frames per second" group field on the "LAN cameras" tab

Prerequisite:

- At least one analog camera is in the camera list. See Section 8.2 Adding a LAN camera

1. Select the **LAN cameras** tab.
2. Select the desired LAN camera in the camera list.



IMPORTANT

Poor recording quality due to too low frame rate

If the frame rate is too low, movements will no longer be recorded smoothly.

- The following reference value applies: maximum frame rate per camera = the maximum frame rate of the SISTORE MX (100 frames/s) divided by the number of LAN cameras connected to the SISTORE MX.

3. Select the option with the desired frame rate (see Fig. 59).
4. Click **Apply**.
→ The setting will be saved.



If the frame rate is changed subsequently, the available disk capacity may not be indicated correctly in the status bar as the calculation of the disk capacity is always based on the maximum frame rate.

8.8 Configuring automatic camera positioning

SISTORE MX supports the protocols of the following PTZ LAN cameras:

AXIS 212 PTZ/213 PTZ
AXIS 231/232 D+, 233D
AXIS Generic HTTP Interface V1.0 and V2.0
JVC VN-C30U
JVC VN-C625U
JVC VN-C655U
Panasonic KX-HCM280
Panasonic WV-NM100/G
Panasonic WV-NS202
Panasonic WV-NS320
Samsung SNC-L200
Sony SNC-M3/W
Sony SNC-P5
Sony SNC-RZ25P
Sony SNC-RZ30P
SONY Generic HTTP Interface
VIVOTEK PZ6122

Tab. 2 PTZ LAN cameras or protocols supported by SISTORE MX



Since different cameras from a manufacturer often use the same protocol, the list of cameras or protocols above may cover more LAN cameras than shown in the list.

Defining positions



Depending on the camera up to 32 positions can be defined. The positions are saved in the camera.

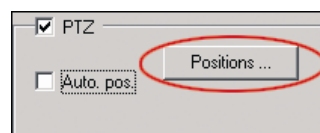


Fig. 60 "Positions ..." button on the "LAN cameras" tab

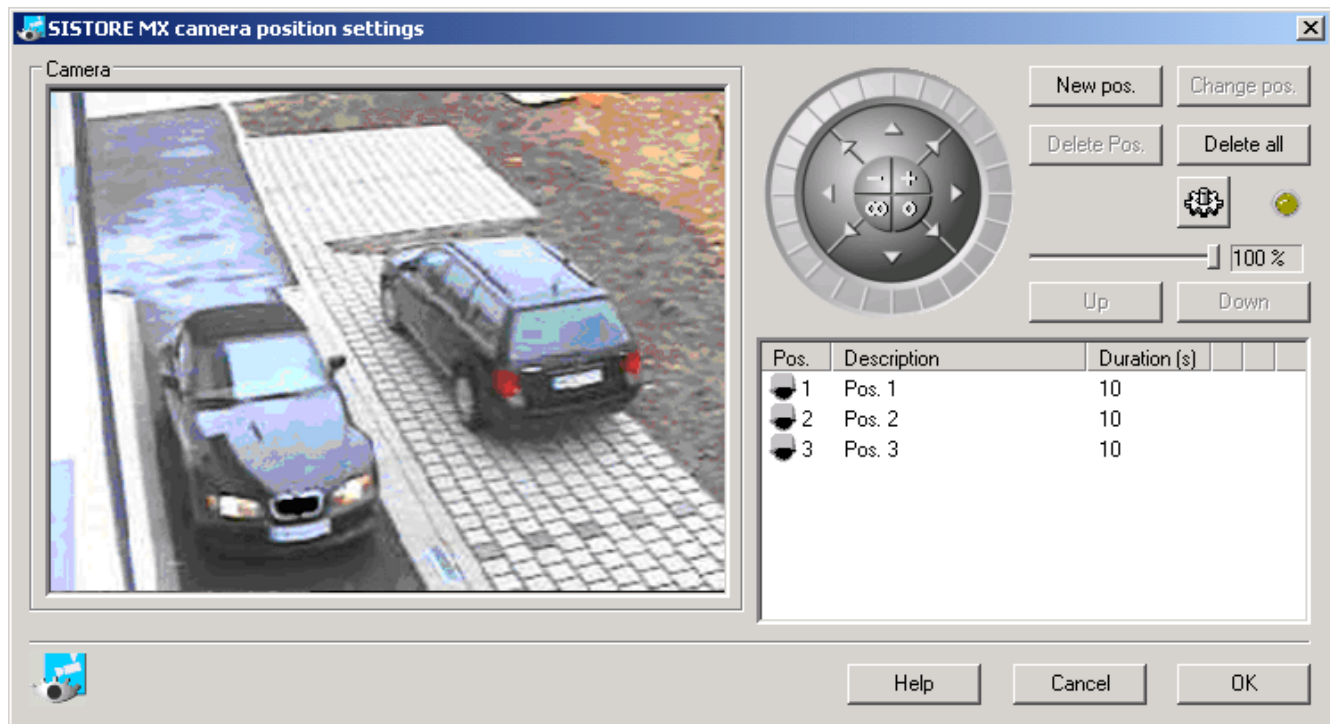


Fig. 61 SISTORE MX camera position settings via the "Positions..." button on the "LAN cameras" tab

Prerequisite:

- There is at least one PTZ LAN camera in camera list.

1. Select the **LAN cameras** tab.
2. Select the camera for which you want to configure the positioning from the camera list.
3. Click **Positions...** .
→ The **SISTORE MX camera position settings** window will open.
4. Move the camera to the desired position.

You can control the camera with the mouse via the control element , with the keyboard or with a joystick.

5. To save a position click **New pos.**
6. To replace a position click **Change pos.**
7. Click on the new position in the position list.
→ The position will be framed.  4 Pos. 4 10  
8. Enter an appropriate position name in the **Description** text field.
9. Select the position dwell time in the **Duration (s)** field.
10. Click **OK**.
11. Click **Apply** on the **LAN cameras** tab.
→ Your settings will be saved.

Additional functions	
Control element	Camera control (pan, tilt, zoom)
Delete pos. button	Deletes the selected position
Delete all button	Delete all positions in the position list Please note: The positions will be deleted without confirmation!
Button 	Start of automatic position cycle
LED icon 	If bright yellow: the camera is currently being moved
Up button	Moves the selected position up in the position list
Down button	Moves the selected position down in the position list

Activating automatic positioning (patrol)

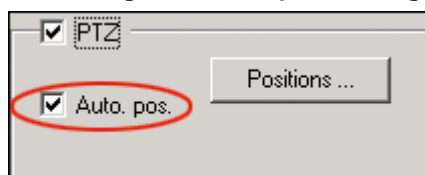


Fig. 62 "Auto. pos." checkbox on the "LAN cameras" tab

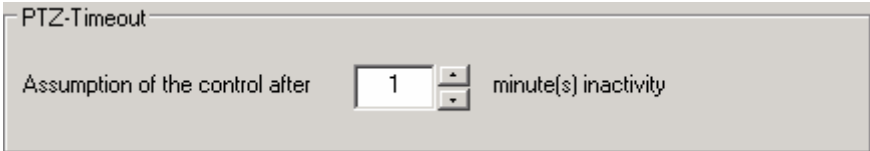
Prerequisites:

- There is at least one PTZ LAN camera in camera list.
- At least two camera positions have been defined for the selected LAN camera.
See the Section "Defining camera positions" (above) for more information on this.

1. Select the **LAN cameras** tab.
2. Mark the checkbox **PTZ**.
3. Define the positions (see above).
4. Mark the checkbox **Auto. pos.**
5. Click **Apply**.
→ The setting will be saved.

8.9 Releasing camera control

As long as a user is controlling a LAN camera, this camera is blocked for other users. In the **PTZ timeout** group field you can define the period without input after which the camera is released for all other users.



1. Select the **System** tab.
2. Enter the period after which the network camera is to be released in the field **Assumption of the control after**.
3. Click **Apply**.
→ The setting will be saved.

8.10 Configuring access to LAN camera configuration



The group field "Access to configuration" is not available for all LAN cameras.

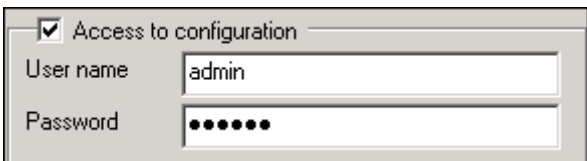


Fig. 63 "Access to configuration" group field on the "LAN cameras" tab

Prerequisite:

- At least one LAN camera is connected to the SISTORE unit. See Section 8.2 Adding a LAN camera.

1. Select the **LAN cameras** tab.
2. Mark the checkbox **Access to configuration**.
3. Enter a user name in the **User name** text field.
4. Enter a password in the **Password** text field.
5. Click **Apply**.
→ Your settings will be saved.

8.11 Configuring live image access

Fig. 64 "Access to images" group field on the "LAN cameras" tab

Prerequisite:

- At least one LAN camera is connected to the SISTORE unit. See Section 8.2 Adding a LAN camera

1. Select the **LAN cameras** tab.
2. Mark the checkbox **Access to images**.
3. Enter a user name in the **User name** text field.
4. Enter a password in the **Password** text field.
5. Click **Apply**.
→ Your settings will be saved.

8.12 Opening the camera configuration dialog

Some LAN cameras (such as those from Mobotix) have a wide range of functions that cannot be completely covered by the SISTORE MX application software. Therefore you can access the configuration dialog of the LAN camera directly using a browser.

Fig. 65 "CP/IP" group field on the "LAN cameras" tab

Prerequisite:

- At least one analog camera is in the camera list. See Section 8.2 Adding a LAN camera.

1. Select the **LAN cameras** tab.
2. Enter the IP address of the relevant LAN camera in the **URL** text field.
3. Enter the port number of the LAN camera in the **Port** text field.
4. Click **Browser ...**
→ A browser window with the proprietary configuration dialog for the camera will open.

9 Configuring motion detection

9.1 Activating motion detection via SISTORE MX

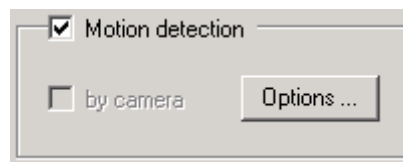


Fig. 66 "Motion detection" checkbox on the "LAN cameras" tab

Prerequisite:

- At least one analog camera or LAN camera is in the respective camera list. See Section 7.1 Adding an analog camera and Section 8.2 Adding a LAN camera.

1. Select the **Cameras** or **LAN cameras** tab.
2. Mark the checkbox **Motion detection**.
 - The **Options ...** button is enabled.
 - Motion detection via the SISTORE MX application software has been activated.
3. Click **Options ...**
 - The **SISTORE MX motion detection** window will open. See Section 9.3 Configuring motion detection via SISTORE MX.

9.2 Activating motion detection by LAN camera

There are LAN cameras that can detect motion. When such a camera is connected, the checkbox **by camera** on the **LAN cameras** tab is enabled.

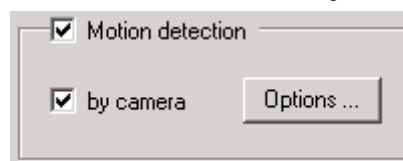


Fig. 67 "Motion detection" checkbox on the "LAN cameras" tab

Prerequisite:

- At least one LAN camera that features "motion detection" is listed in the camera list. See Section 8.2 Adding a LAN camera.

1. Select the **LAN cameras** tab.
2. Mark the checkbox **Motion detection**.
 - The **Options ...** button is enabled.
3. Mark the checkbox **by camera**.
4. Click **Options ...**
 - The following dialog box opens.

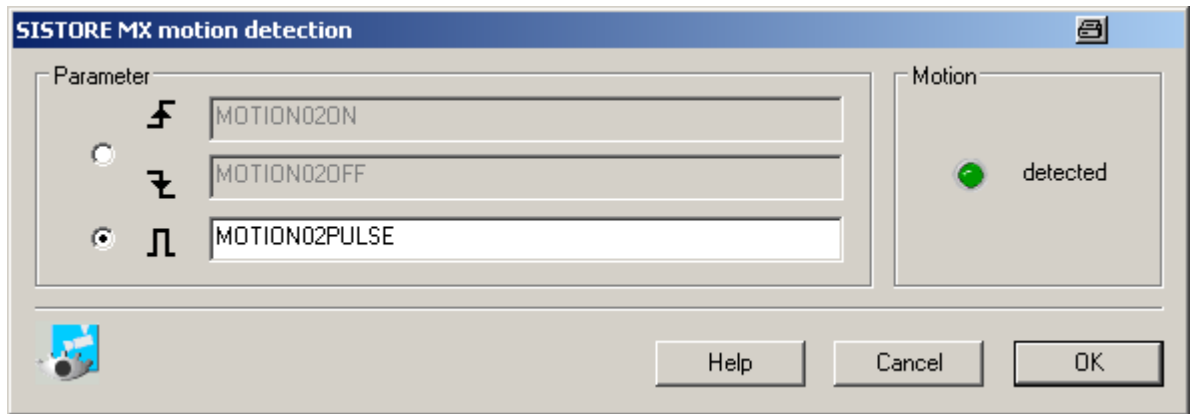


Fig. 68 "SISTORE MX motion detection" dialog (by LAN camera)

- The following commands in the **Parameters** group field are configured by default:

	Command that activates motion detection (level to High) The following commands are defined by default: MOTION01ON for the first LAN camera, MOTION02ON for the second LAN camera, etc. up to MOTION32ON.
	Command that deactivates motion detection (level to Low) The following commands are defined by default: MOTION01OFF for the first LAN camera, MOTION02OFF for the second LAN camera, etc. up to MOTION32OFF.
	Command that switches motion detection in pulsed mode (Low -> High -> Low) The level is set to "High" for 1 second and then to "Low" again. The following commands are defined by default: MOTION01PULSE for the first LAN camera, MOTION02PULSE for the second LAN camera, etc. up to MOTION32PULSE.

5. If you want to define other commands, please note the following:
 - It is recommended to always include the ID of the LAN camera in the command.
 - The command configured in the software of the LAN camera must be consistent with the command defined here.
 - Enter the commands in capital letters and without spaces.
 - Information on how to configure TCP/HTTP and SMTP commands can be found in the manuals for the respective LAN cameras.
6. Click **OK**.
 - The settings will be applied.

9.3 Configuring motion detection via SISTORE MX

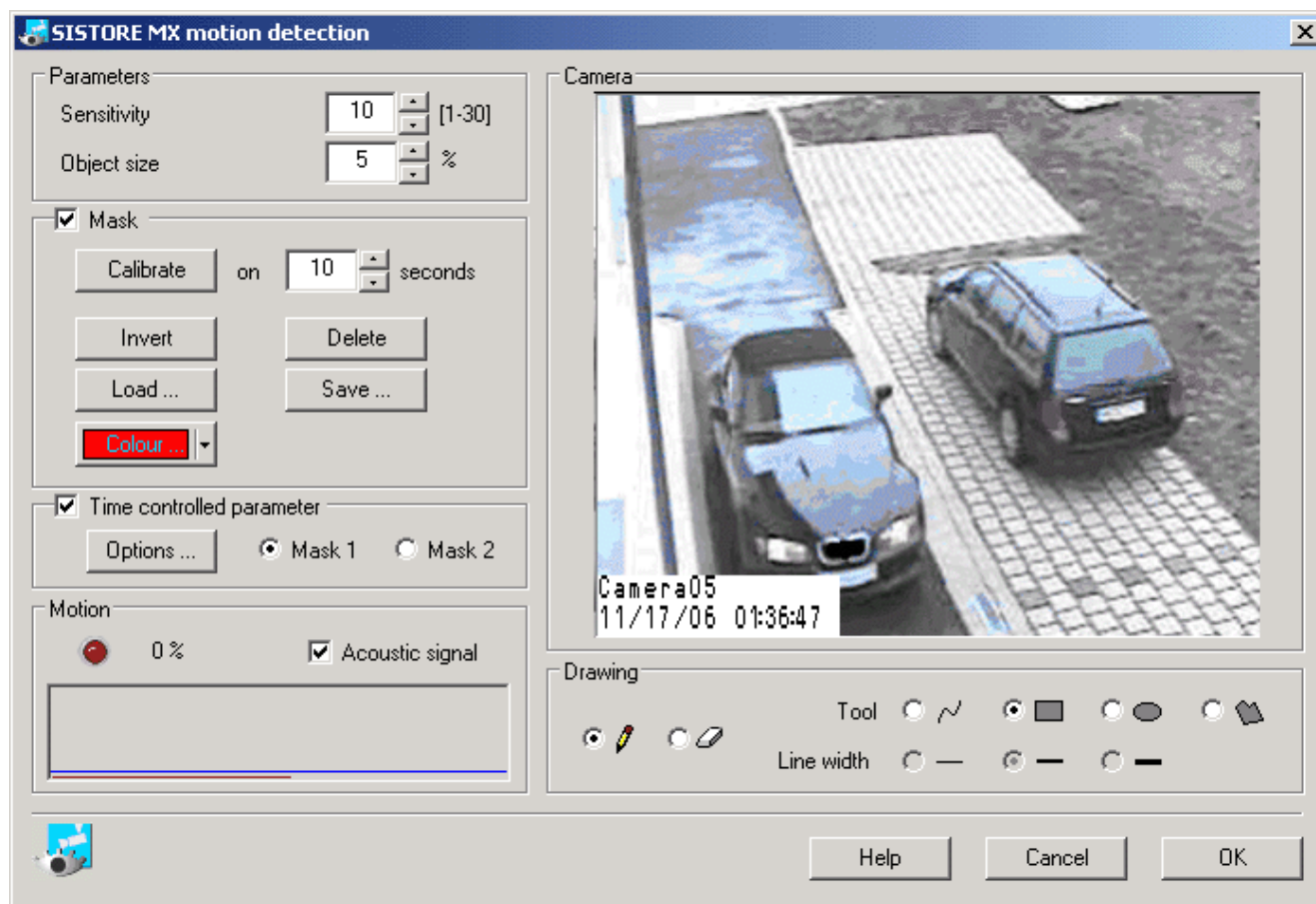


Fig. 69 "SISTORE MX motion detection" dialog (via SISTORE MX application software)

9.3.1 Setting the sensitivity of motion detection

Use **Sensitivity** to determine how sensitively the SISTORE MX reacts to motions, i.e. to the position change of an object.

With **Object size** you can govern the minimum size an object must have for it to be registered by the SISTORE MX. The percentage refers to the object size in relation to the size of the detection area. If no detection area is defined, the entire recording area of the camera is taken as the detection area.

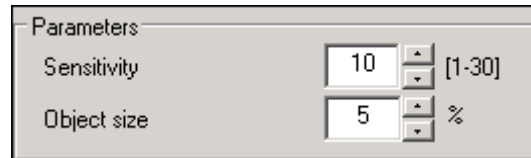


Fig. 70 Motion detection parameters in the "SISTORE MX motion detection" dialog

Prerequisite:

- The **SISTORE MX motion detection** window is opened.
See Section 9.3 Configuring motion detection via SISTORE MX.

1. Enter the sensitivity level in the **Sensitivity** text field.
2. In the **Object size** text field, enter the minimum size as of which objects are to be registered.
3. Click **OK**.

9.3.2 Defining the detection area (mask)

You can define a detection area for analog and LAN cameras. Open the relevant tab in the SISTORE MX application software.

You have three options to define a detection area for motion detection:

- Draw detection area
- Determine the detection area automatically
- Copy detection area (save and load)

Draw detection area

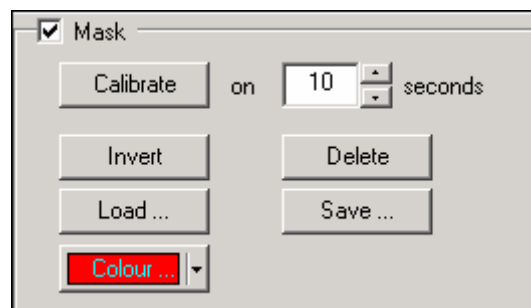


Fig. 71 "Mask (= detection area)" group field in the "SISTORE MX motion detection" dialog

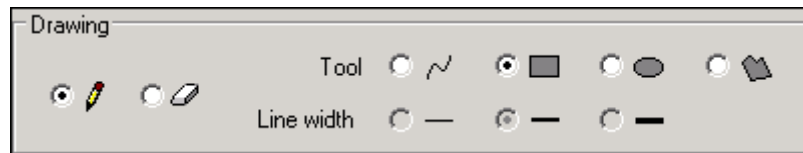


Fig. 72 "Drawing" group field in the "SISTORE MX motion detection" dialog

Prerequisite:

- The **SISTORE MX motion detection** window is opened.
See Section 9.3 Configuring motion detection via SISTORE MX.

1. Mark the checkbox **Mask**.
→ The **Mask** group field will be activated.
2. Select a drawing colour from the **Colour...** list box.
3. Activate the **Pencil tool** option .
4. Select a shape tool in the **Tool** line.
5. If you have chosen the **Line** shape tool :
Select the **line width**.
6. Draw the detection area in the live image of the camera.
7. Click **OK**.
→ The setting will be saved.

TIP: The eraser tool  allows you to correct the detection area. All the shape tools can be used together with the eraser tool.

TIP: It may be simpler for complex shapes to draw the negative of the detection area and then click **Invert**.

Determining the detection area automatically

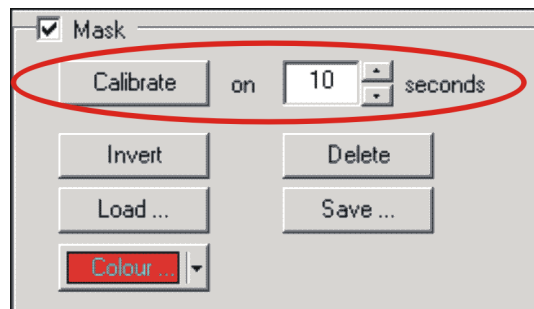


Fig. 73 "Determining the detection area" in the "SISTORE MX motion detection" dialog

Prerequisite:

- The **SISTORE MX motion detection** window is opened. See Section 9.3 Configuring motion detection via SISTORE MX.

1. Mark the checkbox **Mask**.
→ The **Mask** group field will be activated.
2. Enter in the **seconds** text field the period during which the detection area should be determined.
3. Click **Calibrate**.

4. Confirm the message that follows with **OK**.
→ The detection area will be determined.

Copy detection area (save and load)

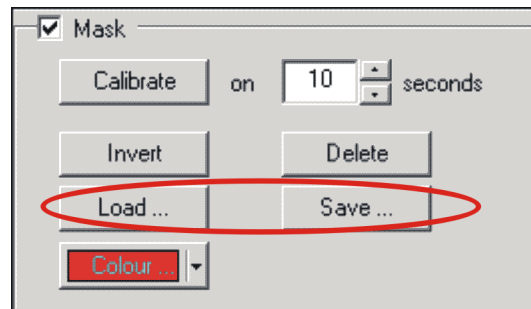


Fig. 74 "Copying the detection area" in the "SISTORE MX motion detection" dialog

Prerequisite:

- The **SISTORE MX motion detection** window is opened. See 9.3 Configuring motion detection via SISTORE MX.

Saving the detection area

1. Click **Save ...**.
→ The **Save As...** dialog will open.
2. Select the directory in which to save the detection area file.
3. Enter a file name in the **File name** text field.
4. Click **Save**.
→ The detection area file will be saved.

Loading the detection area

1. Mark the checkbox **Mask**.
2. Click **Load ...**.
→ The **Open** dialog will open.
3. Select the detection area file you want to load.
4. Click **Open**.
→ The detection area will be displayed on the live image in the **SISTORE MX motion detection** dialog.

9.3.3 Configuring the time control of the detection area

The SISTORE MX application software can switch between two detection areas based on the time. This permits, for example, a different detection area to be used during the day than the one at night. This function is only available to the administrator.

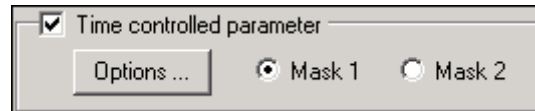


Fig. 75 "Time-controlled parameters" group field in the "SISTORE MX motion detection" dialog

Prerequisite:

- The **SISTORE MX motion detection** window is opened.
See Section 9.3 Configuring motion detection via SISTORE MX.
 - You are logged on as an administrator. See Section 14.2.5 Predefined user accounts: Administrator and Installer.
1. Mark the checkbox **Time controlled parameter**.
→ The **Time controlled parameter** group field will be activated.
 2. Select the option **Mask 1** (= detection area 1).
 3. Set the sensitivity of the motion detection.
See Section 9.3.1 Setting the sensitivity of motion detection.
 4. Define a detection area in the live image of the camera.
See Section 9.3.2 Defining the detection area (mask).
 5. Select the option **Mask 2** (= detection area 2).
 6. Repeat the steps 3 and 4.
 7. Click **Options ...**.
→ The **SISTORE MX time control** window will open.
 8. Configure the time table. See Section 12.2.3 Configuring time control.
→ Mask 1 (detection area 1) will be used in the selected (blue) time segments; mask 2 (detection area 2) will be used in the unselected (white) time segments.
 9. Click **OK**.
→ Your settings will be saved.

10 Configuring tamper detection

10.1 Opening the sabotage detection dialog



Tamper detection is **not** possible with PTZ cameras.

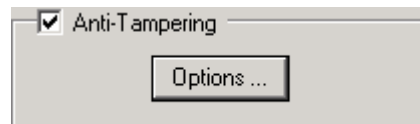


Fig. 76 "Anti-Tampering" (= tamper detection) checkbox on the "Cameras" or "LAN cameras" tab

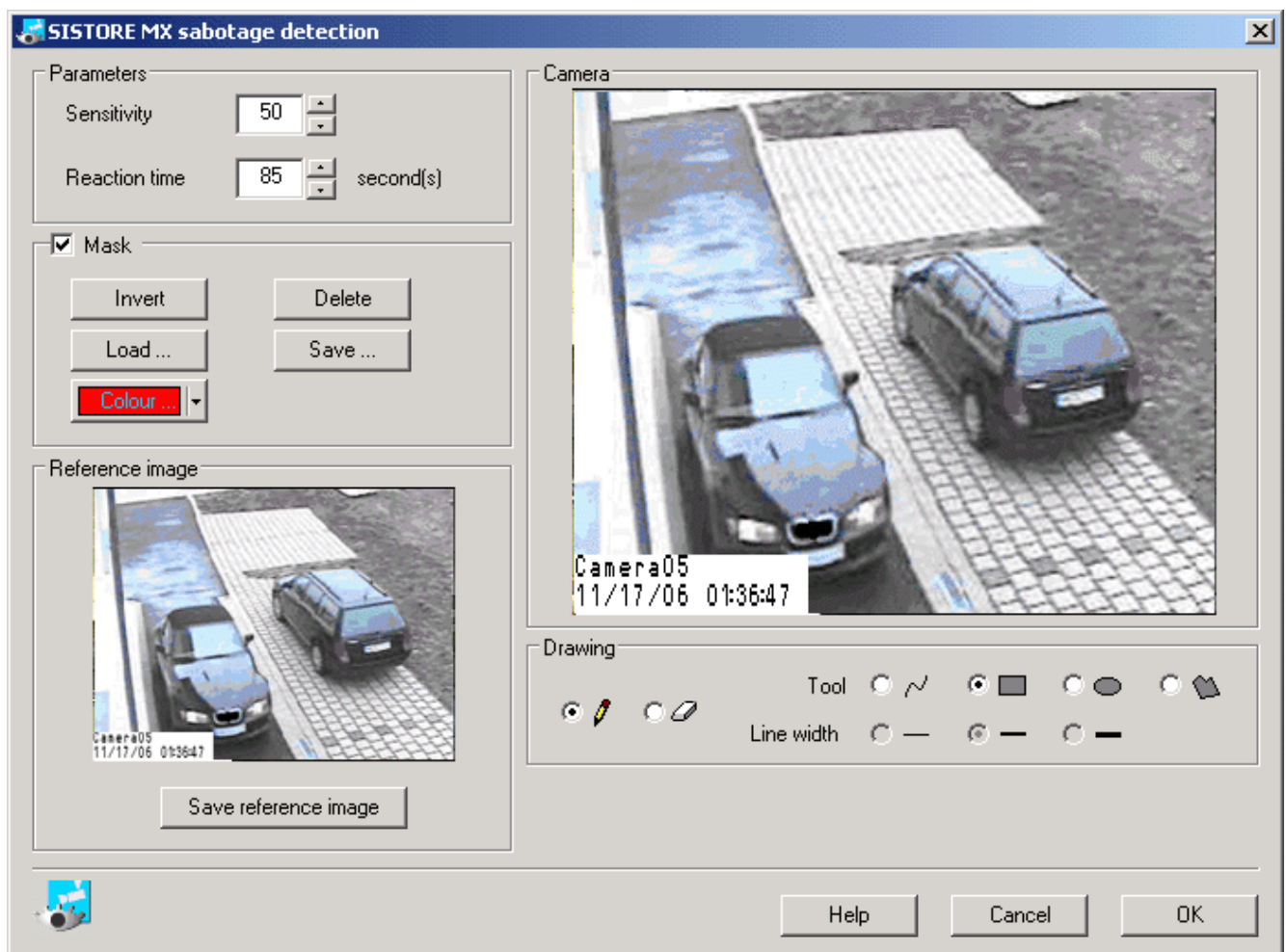


Fig. 77 The "SISTORE MX sabotage detection" dialog opened with the "Options ..." button on the "Cameras" or "LAN cameras" tab

Prerequisite:

- At least one analog camera or LAN camera is in the camera list. See Section 7.1 Adding an analog camera or Section 8.2 Adding a LAN camera.

1. Select the **Cameras** or **LAN cameras** tab.
2. Mark the checkbox **Anti-Tampering** (see Fig. 76).
3. Click **Options ...**
 - The **SISTORE MX sabotage detection** window will open.

10.2 Setting the sensitivity of sabotage detection

Use **Sensitivity** to determine how sensitively the SISTORE MX application software should react to motions, i.e. to the position change of an object.

With **reaction time** you can determine how much time should elapse before the SISTORE MX application software registers changes in the detection area and reports them as tampering.

Prerequisite:

- The **SISTORE MX sabotage detection** window is opened. See Section 10.1 Opening the sabotage detection dialog

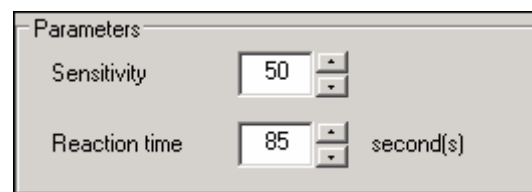


Fig. 78 "Parameters" group field in the "SISTORE MX sabotage detection" dialog

1. Enter a value in the **Sensitivity** text field (see Fig. 78).
 - The higher the value, the more sensitive the tampering detection function.
2. Enter a value in seconds in the **Reaction time** text field.
3. Click **OK**.

10.3 Defining the detection area (mask)

You can define a detection area for analog and LAN cameras. Open the relevant tab in the SISTORE MX application software.

You have two options to define a detection area for sabotage detection:

- Draw detection area
- Copy detection area (save and load)

Draw detection area

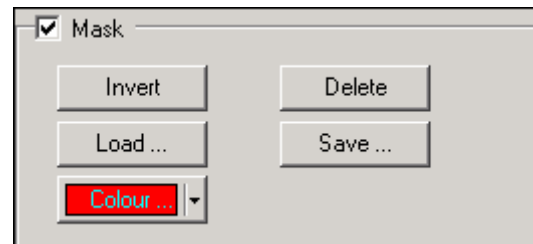


Fig. 79 "Mask" (= detection area) group field in the "SISTORE MX sabotage detection" dialog

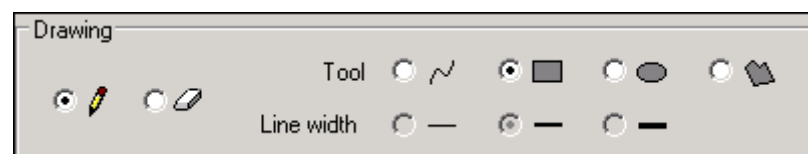


Fig. 80 "Drawing" group field in the "SISTORE MX sabotage detection" dialog

Prerequisite:

- The **SISTORE MX sabotage detection** window is opened. See Section 10.1 Opening the sabotage detection dialog

1. Mark the checkbox **Mask**.
→ The **Mask** (= detection area) group field will be activated.
2. Select a drawing colour from the **Colour...** list box.
3. Click the **Pencil tool**  radio button .
4. Select a shape tool in the **Tool** line.
5. If you have chosen the shape tool **Line** :
Select the **line width**.
6. Draw the detection area in the live image of the camera.
7. Click **OK**.
→ The setting will be saved.

TIP: The eraser tool  allows you to correct the detection area. All the shape tools can be used together with the eraser tool.

Copy detection area (save and load)

Prerequisite:

- The **SISTORE MX sabotage detection** window is opened. See Section 10.1
Opening the sabotage detection dialog

Saving the detection area

1. Click **Save ...**
→ The **Save As...** dialog will open.
2. Select the directory in which to save the detection area file.
3. Enter a file name in the **File name** text field.
4. Click **Save**.
→ The detection area file will be saved.

Loading the detection area

1. Mark the checkbox **Mask**.
2. Click **Load ...**
→ The **Open** dialog will open.
3. Select the detection area file you want to load.
4. Click **Open**.
→ The detection area will be displayed on the live image in the **SISTORE MX sabotage detection** dialog.

10.4 Saving a reference image



The sabotage detection function does not evaluate the reference image. It is only for purposes of visual checking by the user.

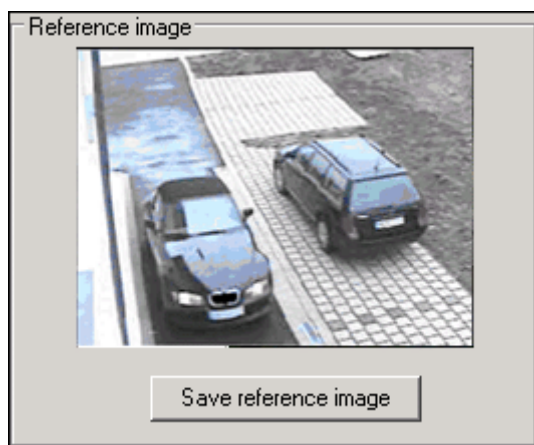


Fig. 81 "Save reference image" button in the "SISTORE MX sabotage detection" dialog

Prerequisite:

- The **SISTORE MX sabotage detection** window is opened. See Section 10.1
Opening the sabotage detection dialog
1. Click **Save reference image**.
 2. Answer **Yes** in the confirmation dialog.
→ The reference image of the camera will be saved.

11 Configuring unit inputs and outputs

11.1 Configuring digital input

You can assign one of the following functions to each digital input:

- **Start/stop of recording**

Starting or stopping of recordings via external signal generator (edge or level).

- **UPS power failure**

Controlled shutdown of the SISTORE MX unit by the signal of a UPS device in the case of power failure.

Recording will be stopped after 60 seconds, the SISTORE MX application software closed and the operating system shut down (level).

- **Shutdown**

The SISTORE MX application software will be closed and the operating system shut down (edge).

- **Enable alarm**

"Arming" by an external alarm input or switch. (SISTORE MX only triggers an alarm if there is a signal on the corresponding digital input. This function is not available in banking mode.)



The function **enable alarm** can be assigned to a maximum of four digital inputs.

- **Alarm connection**

Alarm messages can be sent and the alarm images be activated on a SISTORE RemoteView Client via an external signal generator. See Section 19.3 Configuring alarm notification.

The edge radio buttons allow you to determine whether the function is to be

triggered with a rising () or with a falling () edge. (Edge = level change)

The **level sensitive** checkbox allows you to determine whether a function ends after an edge or continues to be performed until the next edge.

Example:

The recording should start when a door is opened and stop when the door closes. The door opener generates a short signal upon opening and closing of the door, which creates an edge. If the **level sensitive** checkbox is not marked, the SISTORE MX records only short sequences when the door is opened and when it is closed. If the checkbox is marked, the SISTORE MX records a longer sequence from when the door opens until it is closed.

If the **level sensitive** checkbox is marked, the edge radio buttons have no meaning.

The **level sensitive** checkbox is only marked if the **Start/stop recording** function is selected.

☒ Input #1	☒ Start/stop recording	Bit #1	☒  ☐  ☒ level sensitive
☒ Input #2	No function	Bit #2	☒  ☐  ☐ level sensitive
☒ Input #3	No function	Bit #3	☒  ☐  ☐ level sensitive
☒ Input #4	No function	Bit #4	☒  ☐  ☐ level sensitive
☒ Input #5	No function	Bit #2	☒  ☐  ☐ level sensitive
☒ Input #6	No function	Bit #3	☒  ☐  ☐ level sensitive
☒ Input #7	No function	Bit #4	☒  ☐  ☐ level sensitive
☒ Input #8	No function	Bit #4	☒  ☐  ☐ level sensitive

Fig. 82 Operating elements for digital inputs on the "Digital Input" tab

1. Select the **Digital Input** tab.
2. Select the desired function from the dropdown list.
3. Enter a name in the text field (max. 64 characters).
4. Select an edge to the right of the text field.
5. If you have selected the Start/stop recording function: Mark the checkbox **level sensitive** if relevant.
6. Click **Apply**.
 - Your settings will be saved.

11.2 Configuring alarm output

11.2.1 Adding and deleting alarm outputs

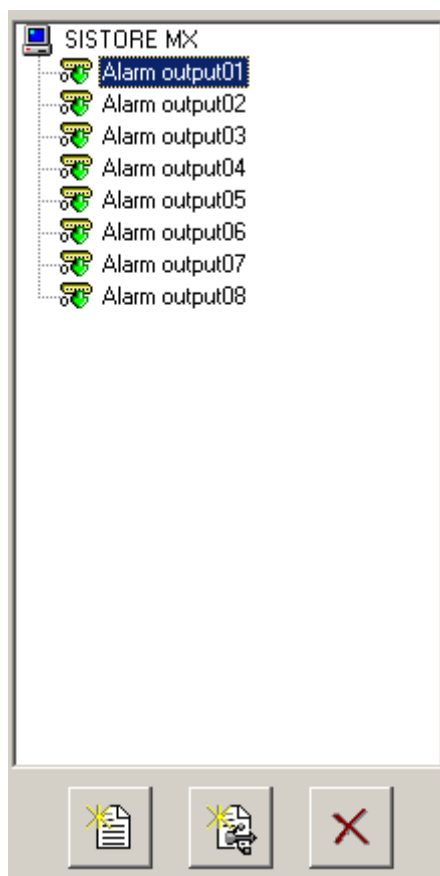


Fig. 83 Alarm outputs list on the Alarm output tab

Adding an alarm output



You can add up to 8 pulsed or alternating alarm outputs.

1. Select the **Alarm output** tab.
2. Click one of the following icons:

	Adding an alarm output Add an internal alarm output (via the SISTORE unit).
	Adding a USB alarm output Add an external alarm output (via USB module).

→ A new alarm output will be added to the alarm output list.

3. Enter a name for the alarm output in the **Name** text field.
4. Enter a short description, such as information on the switch position, in the **Description** text field.
5. In the **Output** field, select the number of the physical device output (or the I/O card output).
6. Click **Apply**.
 - Your settings will be saved.

Deleting an alarm output

Prerequisites:

- The SISTORE MX application software has been started. See Section 5.16 Starting the SISTORE MX application software and logging in.
- The SISTORE MX application software is in configuration mode. See Section 5.17 Opening configuration mode.

1. Select the **Alarm output** tab.
2. Select the alarm output you want to delete in the list.



3. Click on the icon **Delete alarm output**.
4. Answer **Yes** in the confirmation dialog.
5. Click **Apply**.
→ Your settings will be saved.

11.2.2 Selecting the switch action

You can define the response to an event for each alarm output. The following options are available:

	Open switch contact	
	Close switch contact	
	Negative switch pulse	Pulse duration 0 min 0 s 40 ms For the actions negative switch pulse and positive switch pulse you can set the switch pulse duration. The switch pulse duration can be set to 16 minutes and 40 seconds max.
	Positive switch pulse	
	Alternating	Frequency 1.00 Hz You can set the frequency for the alternating action. The step width is: • 0.01 Hz at 0.01 Hz to 0.5 Hz • 0.1 Hz at 0.5 Hz to 1.0 Hz • 1.0 Hz at 1.0 Hz to 5.0 Hz The green LED icon is lit continuously in this mode, since it does not show the switching state of the output but rather its activity.

1. Select an alarm output in the alarm outputs list.
2. Select a switch mode in the **Alarm output switch on alarm** group field.
3. Select the pulse duration or frequency as necessary.
4. Test the function of the alarm output with the **Test** button.
5. Click **Apply**.
→ Your settings will be saved.

11.2.3 Event-based or time control of alarm outputs



An alarm output with a special function assigned to it is not available for the configuration of recording.

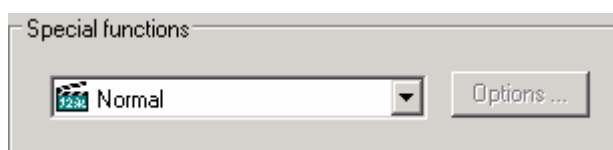


Fig. 84 Special functions input field on the Alarm output tab

The field selection **Normal** means: **no special functions** (see Fig. above).

Name of the special function	Function
Remote controllable	The alarm output can be activated or deactivated by clicking the status LED icon (in the status display of the switch outputs in display mode) (see Fig. 85). You require the user right remote control (see Section 14.1.2 Global user rights.)
Error	The SISTORE MX sends a signal over the corresponding alarm output if one of the following faults occurs: • UPS reports a power failure • The SISTORE MX application software was not properly closed (for example due to power failure or Watchdog) • Recording could not be started • Fatal recording error • Hard drive full, recording stopped • Failure of a hard drive • Windows device driver reports errors (event log)
Alarm	SISTORE MX sends a signal over the corresponding alarm output if an alarm recording is being made. The signal will be sent as long as the alarm recording lasts.
Motion	SISTORE MX sends a signal to the corresponding alarm output if a camera has detected a movement. The signal will be sent to the alarm output as long as the recording continues.
Loss of video	SISTORE MX sends a signal over the corresponding alarm output if at least one camera has failed.
Camera sabotage	SISTORE MX sends a signal over the corresponding alarm output if camera tampering has been detected.
Recording	During recording a signal will be sent periodically via the corresponding alarm output.
Time control	The SISTORE MX sends a signal over the corresponding alarm output at the specified times. If you select this special function the Options ... button will be enabled.
Remote connection	The alarm output will be activated as soon as there is at least one connection to a SISTORE RemoteView client.

Tab. 3 Special functions of the alarm outputs

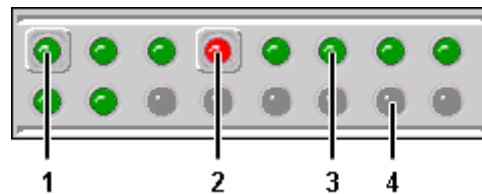


Fig. 85 Status of all alarm outputs in display mode

- 1 The special function remote controllable is not assigned to the alarm output, and the output is inactive.
- 2 The special function remote controllable is assigned to the alarm output, and the output is activated.
- 3 The special function remote controllable is not assigned to the alarm output, but the output is configured.
- 4 The alarm output is not configured.

The status display of the alarm outputs is also shown in SISTORE RemoteView. The status LED icons represent the alarm outputs in sequence (1 to 16) from the top left to the bottom right.

Event-controlled alarm output activation/deactivation

1. Select the **Alarm output** tab.
2. Select a special function in the **Special functions** list box (see Fig. 84).
3. If you have selected the time control special function: **Special functions of the alarm outputs** (see Tab. 3), entry **Time control**.
4. Click **Apply**.
→ Your settings will be saved.

Time-controlled alarm output activation/deactivation

Prerequisites:

- The SISTORE MX application software has been started. See Section **Fehler! Verweisquelle konnte nicht gefunden werden**. Starting the SISTORE MX application software and logging in.
- The SISTORE MX application software is in configuration mode. See Section 5.17 Opening configuration mode.
- The special function time control is not assigned to the particular alarm output.

1. Select the **Alarm output** tab.
2. Mark the checkbox **Time control**.
→ The **Options ...** button is enabled.
3. Click **Options ...**.
→ The **SISTORE MX time control** window will open.
4. Configure the time table. See Section 12.2.3 Configuring time control.
→ The alarm output is activated in the marked (blue) time segments and deactivated in the unmarked (white) time segments.
5. Click **OK**.
→ Your settings will be saved.

11.3 Configuring video outputs

The number of video inputs and outputs depends on the type of unit (part number). Further information on this can be found in the SISTORE MX / MX 3G Installation Manual.

Up to 32 video inputs can be switched to four video outputs. You can select independently among the following three modes for each video output:

Static mode

A fixed assignment of a camera is made to a video output. No live image except that of the assigned camera can be displayed on a video monitor connected to this output.

Event mode

Please note:

The prerequisite for this mode is that the **Connection to monitor** on the **Recording** tab be marked (see Section 17.3 Configuring recording modes).

The SISTORE MX connects the camera in which a movement was detected in the live image or for which an associated alarm input was triggered.

The selected camera remains connected for at least two seconds and 600 seconds max. even if during this time another camera detects motion in the live image or another alarm input is triggered. The camera dwell time can be set under "Display mode" on the "System" tab.

Periodic mode

In this mode, all 32 analog cameras can be activated and their images be displayed successively on the monitor.

SISTORE MX switches at a defined interval between the cameras that are entered in the camera list and selected (see Fig. 88).

The following options can be selected in the **static** and **event** mode:

Manual

The fixed camera assignment (by definition and/or motion or alarm detection) can be changed. Then you can connect a camera to another video output in display mode via the live image context menu. The connection of a camera to one of the four video outputs is also possible via SISTORE RemoteView.

Prerequisite:

- The SISTORE MX application software is in display mode. See Section 4.1.1 Display mode.
1. Right-click on the live image of the desired camera.
 2. The **live image context menu** will open.
 3. Select the desired video output (e.g. video output monitor 1) in the **live image context menu**.

PTZ

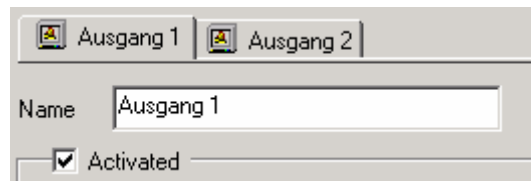
A PTZ camera is connected as soon as it is controlled.

Configuring the video outputs

Prerequisite:

- You have stopped all current recordings.

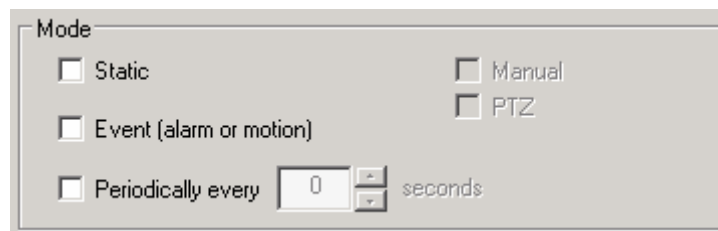
1. Select the **Video output** tab.
2. Select a tab, e.g. Output1 (see Fig. 86).
3. Mark the checkbox **Activated**.
4. Enter a name for the video output in the **Name** text field.



The screenshot shows a software interface for configuring video outputs. At the top, there are two tabs labeled 'Ausgang 1' and 'Ausgang 2'. The 'Ausgang 1' tab is selected. Below the tabs, there is a 'Name' text field containing the text 'Ausgang 1'. Below the text field, there is a checkbox labeled 'Activated' which is checked.

Fig. 86 Name group field on the video output tab

5. Select an operating mode in the **Mode** group field (see Fig. 87).



The screenshot shows a 'Mode' group field. It contains three checkboxes: 'Static', 'Event (alarm or motion)', and 'Periodically every'. The 'Periodically every' checkbox is followed by a numeric input field containing the value '0' and the unit 'seconds'. To the right of these are two more checkboxes: 'Manual' and 'PTZ'.

Fig. 87 Mode group field on the Video output tab



The modes Event and Periodic can be activated at the same time. The selected cameras will then be connected periodically until an event occurs or a camera is connected by manual selection. When the preset alarm and post-alarm time has expired the output will return to Periodic mode.

When Static mode is selected, it is not possible to activate another mode.

6. If you have selected **Static** or **Event** mode, you can mark either or both checkboxes **Manual** and **PTZ**.
– OR –
If you have selected **Periodic** mode, select the time after which another camera shall be activated in the **seconds** field.
7. If you have selected **Static** or **Periodic** mode, select one or several cameras in the cameras list. (See Fig. 88)

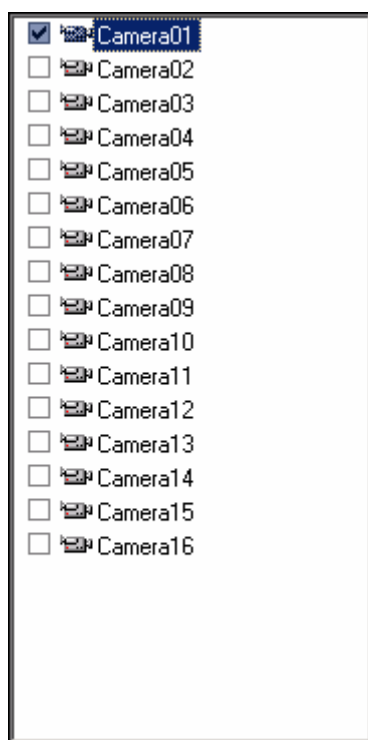


Fig. 88 Camera on the "Video output" tab

8. Click **Apply**.

→ Your settings will be saved.

Security settings for video outputs

The security setting **Only active if user logged on** (see Fig. 89) has the effect that, regardless of the operating mode selected, no live images are shown via the video outputs.

Prerequisites:

- No user is logged in to the system.
– OR –
- The user logged in has no display right (see Section 18.1 General information on user management).
– OR –
- The particular camera is not released for the logged-in user via the user category (see Section 7.5 Configuring the live image display, or Section 8.5 Configuring the live image display).

1. Mark the checkbox **Only active if user logged on** in the security group field.
(See Fig. 89)

2. Click **Apply**.

→ The setting will be saved.

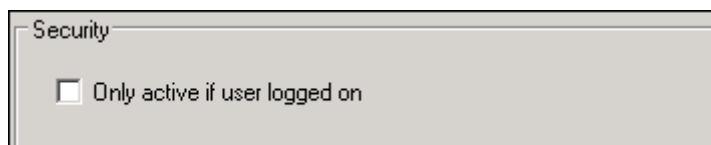


Fig. 89 Security group field on the Video output tab

12 Configuring alarm inputs

12.1 Adding and deleting alarm inputs

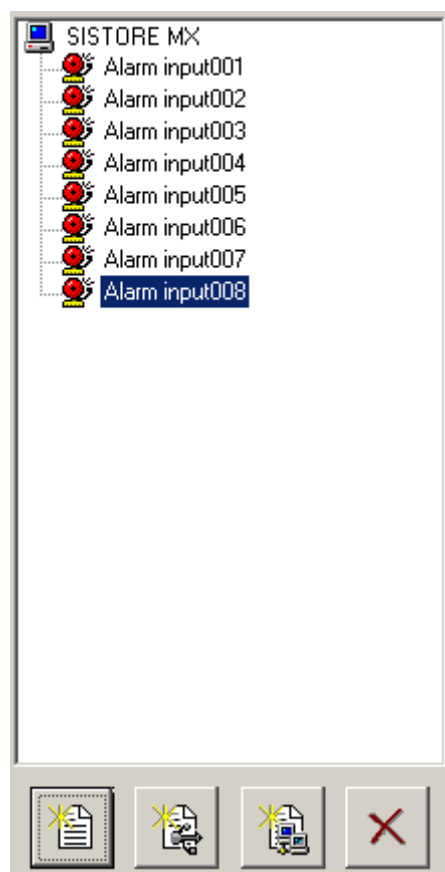


Fig. 90 Alarm inputs list on the Alarm input tab

Adding an alarm input

1. Select the **Alarm input** tab.
2. Click one of the following icons:

	Adding an alarm input Add an internal alarm input (via the SISTORE unit).
	Adding a USB alarm input Add an external alarm input (via USB module).
	Adding a network alarm input Add an external alarm input (via LAN camera).

→ A new alarm input will be added to the alarm inputs list.



Internal alarm inputs are assigned sequential numbers 001...032, USB alarm inputs numbers 065...096, and network alarm inputs numbers 101...132.

3. Enter a name for the alarm input in the **Name** text field.



Names can be up to 16 characters long.

4. Enter a short description, such as information on the position, in the **Description** text field.
5. In the **alarm input** field, select the number of the physical device input (the trigger input of the I/O card).
6. Click **Apply**.
→ The settings will be saved.

Deleting an alarm input

1. Select the **Alarm input** tab.
2. Select the alarm input you want to delete in the list.
3. Click the **Delete alarm input** button .
4. Answer **Yes** in the confirmation dialog.
5. Click **Apply**.
→ Your settings will be saved.

12.2 Configuring internal alarm inputs and USB alarm inputs



SISTORE MX supports up to 32 analog cameras with max. 100 images per second.

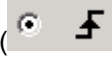
If a camera is in an alarm state, the set frame rate cannot be guaranteed for other cameras even if they have higher priority.

12.2.1 Trigger edge configuration



The trigger edge applies to all alarm inputs. It can be set separately only for LAN inputs. Apart from that, it cannot be set differently for multiple alarm inputs.

With the trigger edge you can determine whether

- an alarm input normally carries voltage and the voltage is interrupted during an alarm ()
- or an alarm input carries voltage only in the case of an alarm and otherwise not ()

The **level sensitive** checkbox allows you to determine whether a recording ends directly after an edge or continues until the next edge.

Example:

The SISTORE MX should start recording when a door is opened and stop when the door closes. The door opener (alarm input) generates a short signal (level change / edge) upon opening and closing of the door. If the **level sensitive** checkbox is not marked, the SISTORE MX records only short sequences when the

door is opened and when it is closed. If the checkbox is marked, the SISTORE MX records a longer sequence from when the door opens until it is closed.

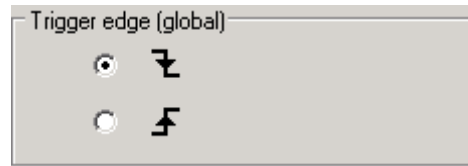


Fig. 91 **Trigger edge (global)** group field on the **Alarm input** tab

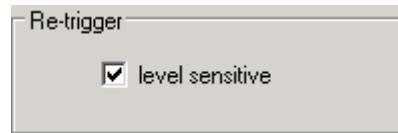


Fig. 92 **Level sensitive** checkbox on the **Alarm input** tab

1. Select the **Alarm input** tab.
2. Select the alarm input you want to configure in the list.
3. Select a trigger edge in the **Trigger edge (global)** group field.
4. Mark the checkbox **level sensitive** if relevant.
5. Click **Apply**.
 - The setting will be saved.

12.2.2 Configuring priority

The following priorities can be selected for alarm inputs:

- Normal (the alarm input icon in the alarm input list is red)
- Hold-up (the alarm input icon in the alarm input list is orange)
- Suspicion (only possible if bank mode is active; the alarm input icon in the alarm input list is purple)

The priority of an alarm input plays a role in the configuration of the recording. (See Section 17.3 Configuring recording modes). When an alarm with the priority hold-up is triggered, active recordings with the normal alarm priority and movement recordings are automatically ended. However, active recordings with the hold-up alarm priority cannot be automatically ended.

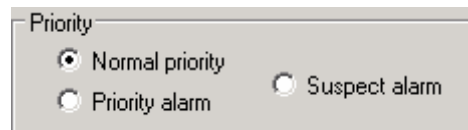


Fig. 93 **Priority** group field on the **Alarm input** tab

1. Select the **Alarm input** tab.
2. Select the alarm input you want to configure in the list.
3. Select the priority of the alarm input in the **Priority** group field.

12.2.3 Configuring time control

You can activate and deactivate alarm inputs under time control.



Alarm inputs with the priority hold-up or suspicion cannot be activated or deactivated with time control.

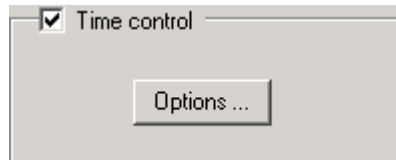


Fig. 94 Time control checkbox on the Alarm input tab

1. Select the **Alarm input** tab.
2. Select the alarm input you want to configure in the list.
3. Mark the checkbox **Time control**.
4. Click **Options...**

→ The following dialog box opens.

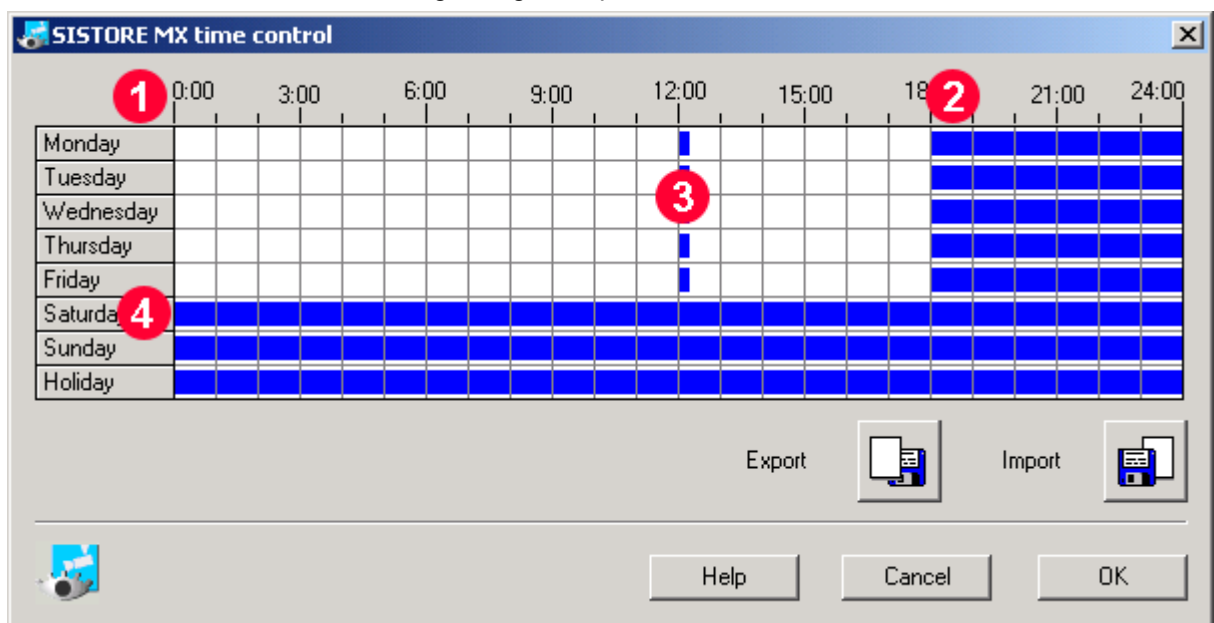


Fig. 95 Click points in the "SISTORE MX time control" dialog



The alarm input is activated only in the marked (blue) time segments.

5. Configure the time table. See also Fig. 95 and the following table:

In general	Left-click to select, right-click to remove a selection
1	A click at this position affects the entire time table.
2	A click at this position affects a column (= one hour).
3	A click at this position affects an individual time segment (= 15 minutes).
4	A click at this position affects a row (= one day).

Tip: By clicking and dragging on the click points 2 or 3 you can select or deselect multiple columns or time segments.

6. Click **OK**.

→ The setting will be saved.

Exporting a time control file

The **Export** button can be used to back up the time control file and transfer it to other systems.

1. Click the **Export** button .

→ The **Save As...** dialog will open.
2. Select the directory into which you would like to export the time control file.
3. Enter a file name in the **File name** text field.
4. Click **Save**.

→ The time control file will be exported.

Importing time control

You can import a saved time control file with the **Import** button.



If the time control has already been configured, this configuration will be replaced.

1. Click the **Import** button .

→ The **Open** dialog will open.
2. Select the time control file to import.
3. Click **Open**.

→ The time control file will be imported.

12.2.4 Testing the configuration of an alarm input

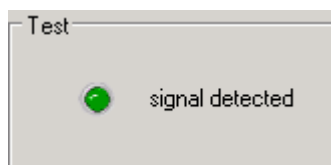


Fig. 96 The signal detected LED icon on the Alarm input tab

1. Select the **Alarm input** tab.
2. Select the alarm input you want to test in the list.
3. Trigger the (physical) alarm input.
 - The LED icon will appear bright green briefly if the signal of the alarm input was detected.

12.3 Configuring network alarm inputs

12.3.1 Configuring priority

The following priorities can be selected for alarm inputs:

- Normal (the alarm input icon in the alarm input list is red)
- Hold-up (the alarm input icon in the alarm input list is orange)
- Suspicion (only possible if bank mode is active; the alarm input icon in the alarm input list is purple)

The priority of an alarm input plays a role in the configuration of the recording. (See Section 17.3 Configuring recording modes). When an alarm with the priority hold-up is triggered, active recordings with the normal alarm priority and movement recordings are automatically ended. However, active recordings with the hold-up alarm priority cannot be automatically ended.

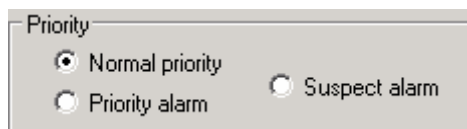


Fig. 97 Priority group field on the Alarm input tab

1. Select the **Alarm input** tab.
2. Select the alarm input you want to configure in the list.
3. Select the priority of the alarm input in the **Priority** group field.

12.3.2 Configuring time control

You can activate and deactivate alarm inputs under time control.



Alarm inputs with the priority hold-up or suspicion cannot be activated or deactivated with time control.

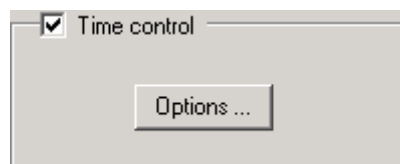


Fig. 98 Time control checkbox on the Alarm input tab

1. Select the **Alarm input** tab.
 2. Select the alarm input you want to configure in the list.
 3. Mark the checkbox **Time control**.
 4. Click **Options....**
- The following dialog box opens.

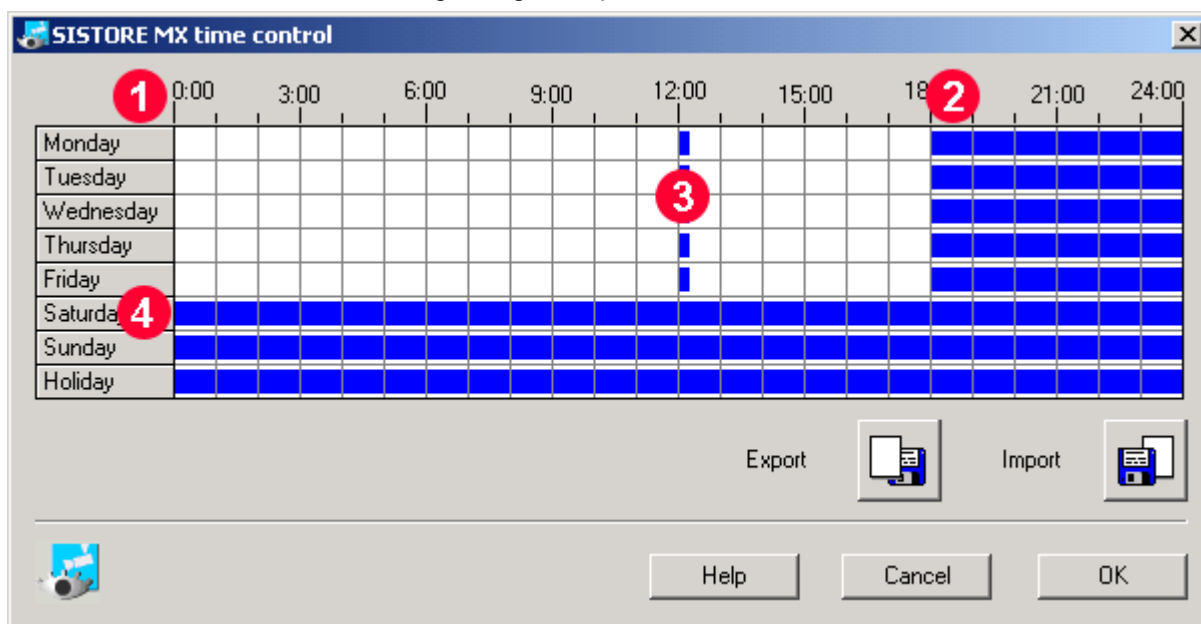


Fig. 99 Click points in the "SISTORE MX time control"



The alarm input is activated only in the marked (blue) time segments.

5. Configure the time table. See also Fig. 95 and the following table:

In general	Left-click to select, right-click to remove a selection
1	A click at this position affects the entire time table.
2	A click at this position affects a column (= one hour).
3	A click at this position affects an individual time segment (= 15 minutes).
4	A click at this position affects a row (= one day).

Tip: By clicking and dragging on the click points 2 or 3 you can select or deselect multiple columns or time segments.

6. Click **OK**.
→ The setting will be saved.

Exporting a time control file

The **Export** button can be used to back up the time control file and transfer it to other systems.

- Click the **Export** button .
→ The **Save As...** dialog will open.
- Select the directory into which you would like to export the time control file.
- Enter a name in the **File name** field.
- Click **Save**.
→ The time control file will be exported.

Importing time control

You can import a saved time control file with the **Import** button.



If the time control has already been configured, this configuration will be replaced.

- Click the **Import** button .
→ The **Open** dialog will open.
- Select the time control file to import.
- Click **Open**.
→ The time control file will be imported.

12.3.3 Configuring network commands

Some LAN cameras can send user-definable commands via the protocols SMTP or HTTP/TCP. The SISTORE unit reacts to the text in the text fields (see Fig. 100). If this text is consistent with the command received, an alarm signal will be triggered.

The SISTORE MX application software receives messages via IP port 13801 (HTTP messages and TCP data) and IP port 13802 (SMTP, i.e. e-mail server). The IP ports 13801 and 13802 are set by default.



- Basically, TCP is the fastest way to send messages, HTTP messages are slightly slower. E-mail messages sent via SMTP are slower but not as slow as regular e-mail messages.
- The IP port of the LAN camera and the IP port of the SISTORE MX application software must be identical. See Section 5.4.1 Matching IP ports.
- With some cameras, it is not possible to change the IP port.
- The IP ports configured apply to all alarm inputs.

Fig. 100 Configuring LAN alarm inputs – Alarm input tab

1. Select the **Alarm input** tab.

→ The following commands in the **Network** group field are configured by default:

	Command that activates an input (level to High) The following commands are defined by default: TRIGGER01ON for the first input, TRIGGER02ON for the second input, etc. up to TRIGGER32ON.
	Command that deactivates an input (level to High) The following commands are defined by default: TRIGGER01OFF for the first input, TRIGGER02OFF for the second input, etc. up to TRIGGER32OFF.
	Command that switches an input in pulsed mode (Low -> High -> Low) The level is set to "High" for 1 second and then to "Low" again. The following commands are defined by default: TRIGGER01PULSE for the first input, TRIGGER02PULSE for the second input, etc. up to TRIGGER32PULSE.

2. If you want to define other commands, please note the following:
 - It is recommended to always include the ID of the LAN alarm input in the command in order that the command can be allocated to the alarm input.
 - The command configured in the software of the LAN camera must be consistent with the command defined here.
 - Enter the commands in capital letters and without spaces.
 - Information on how to configure TCP/HTTP and SMTP commands can be found in the manuals for the respective LAN cameras.
3. Click **Apply**.
 - The settings will be applied.

13 Map configuration

13.1 General information about maps

On the **Map** tab you can combine and link any number of maps (jpeg files) with objects.

The following limitations apply:

- A maximum of 32 maps can be shown.
- The maps can be shown in a maximum of 2 hierarchy levels.
- A maximum of 192 objects can be placed.
- The minimum size of maps is 256 x 256 pixels.
- The maximum size of maps is 2048 x 2048 pixels.
- The colour depth must be 8- or 24-bit.

1. Select the **Map** tab.
→ The following dialog box opens.

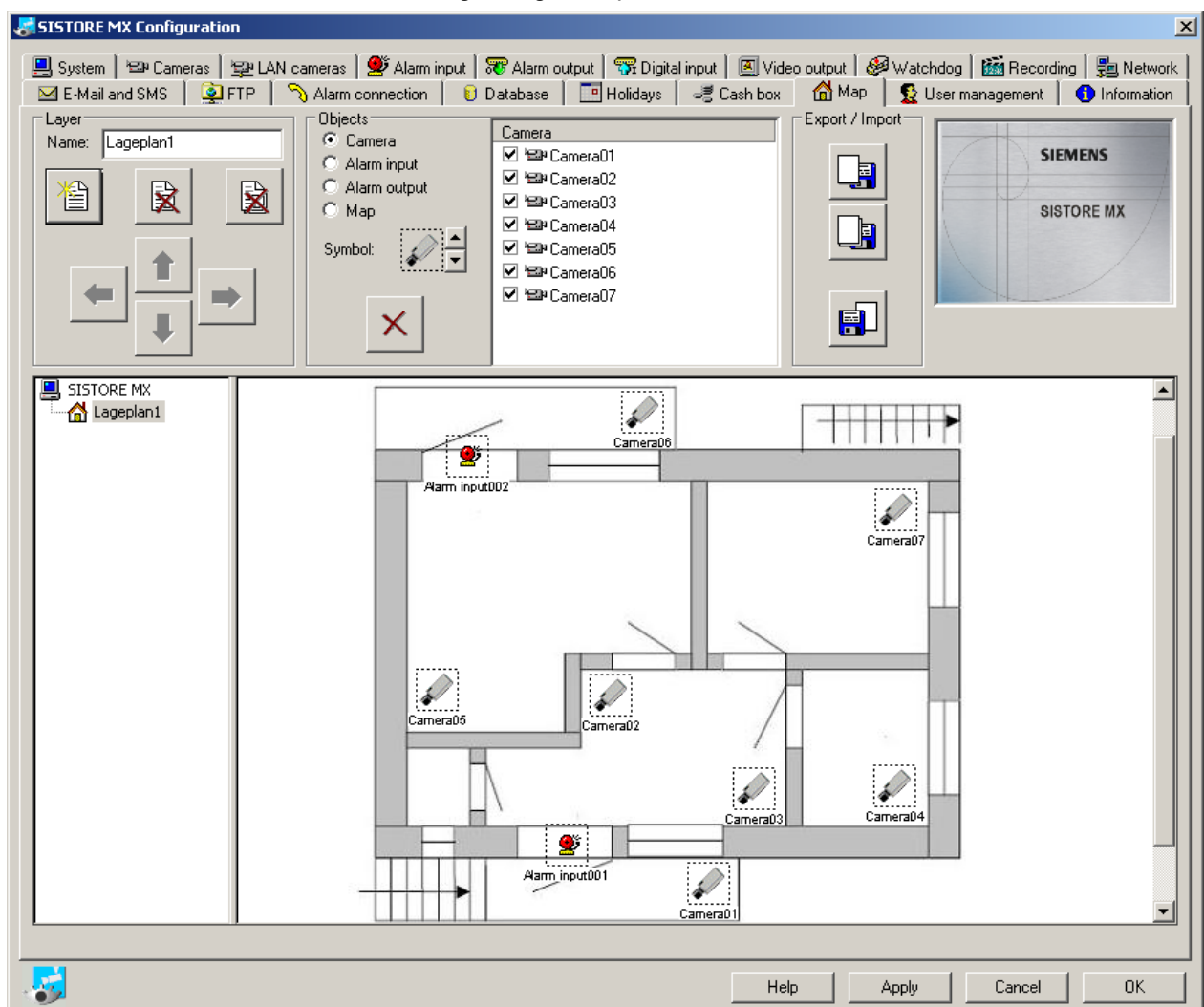


Fig. 101 SISTORE MX – configuration of the map

Display window

The map selected in the tree view will be shown in the display window with the set objects. If the graphic of the map is larger than the display area, scroll bars will be displayed.



The graphic of the map to be displayed is not scaled.

Tree structure

The tree view shows all the maps configured in SISTORE MX in their hierarchy. A maximum of 2 hierarchy levels can be created.

Layer

Name	Name of the map. The map will be displayed in the tree view with the name entered here.
	Add map to the tree view
	Delete map selected in the tree view
	Delete all maps
	Move map one position up/down.
	Move map one hierarchy level to left/right. A maximum of 2 hierarchy levels can be created (main levels and one subordinate level per main level).

Export / Import

The following export and import functions are available:

	Export current layer
	Export all layers
	Import layer

13.2 Adding a map



- Maps must be present as JPG files. The minimum size of maps is 256 x 256 pixels, and the maximum size is 2048 x 2048 pixels. The colour depth must be 8- or 24-bit.
- In single-monitor mode and with a screen resolution of 1280 x 1024 pixels it is recommended that maps not exceed 800 x 600 pixels.

1. Select the **Map** tab.
2. Click the **Add new layer** .
 - The following dialog box opens.

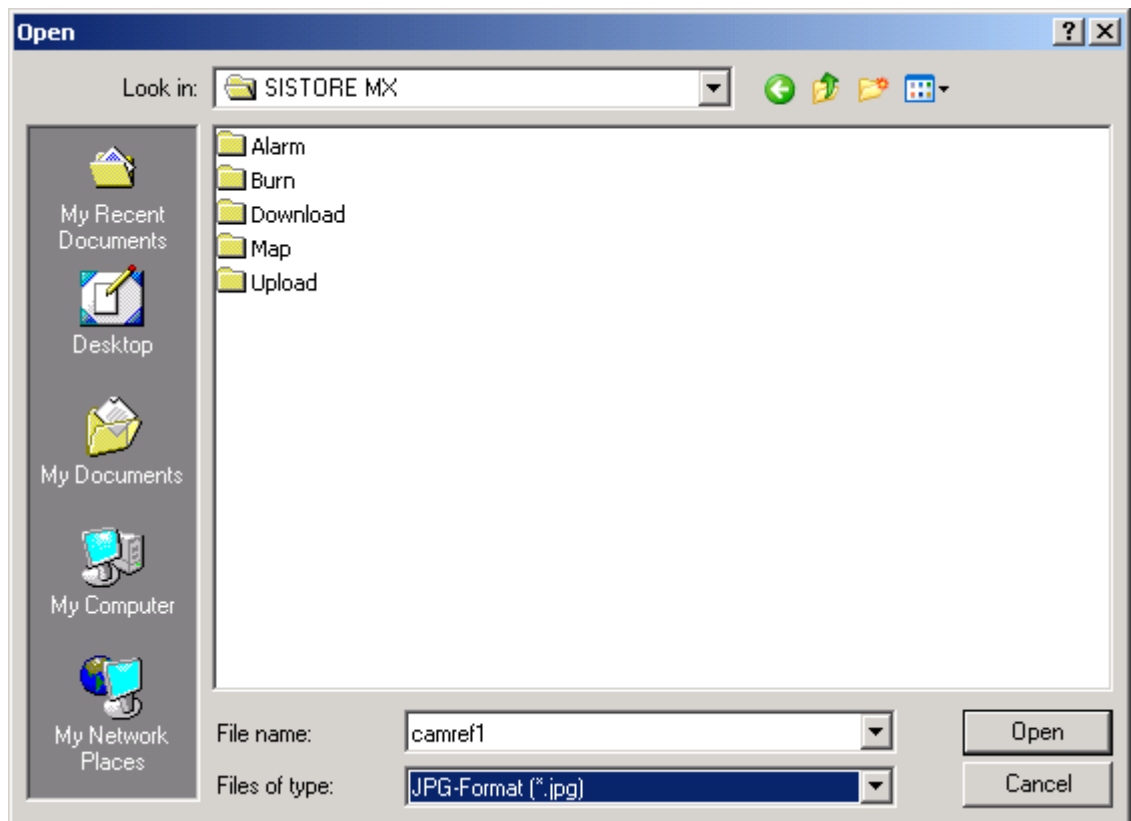


Fig. 102 "Open" dialog

3. Select the desired map.
4. Click **Open**.
 - The map will be added to the map list.
 - The selected map will be shown in the display window.

13.3 Deleting a map

Delete selected entry

1. Select the **Map** tab.
2. Click on the map to delete in the map list.



3. Click the button.
4. Answer **Yes** in the confirmation dialog.
 - The entry will be deleted.

Delete all entries

1. Select the **Map** tab.



2. Click the button.
3. Answer **Yes** in the confirmation dialog.
 - All entries will be deleted.

13.4 Linking a map

You can link maps. This means that you can open another map using an icon on the map that is currently open.

Prerequisite:

- Several maps have been generated. See Section 13.2 Adding a map.

Linking a map

1. Select the **Map** tab.
2. Select the map on which you want to create a link to another map in the tree view.
3. Select **Map** in the **Objects** group field.
 - A list showing all maps is opened.
4. Select the map to which you want to create a link.
5. Click on the desired position of the link icon on the map.
 - An icon will be inserted at this position on the map.
 - The placement of the object is confirmed in the selection list by a mark in the checkbox.
6. Click **Apply**.
 - The setting will be saved.

13.5 Edit layer

13.5.1 Import layer

You can import a saved layer as a map file with the **Import layer** button.

1. Select the **Map** tab.

2. Click the **Import** button



→ The following dialog box opens.

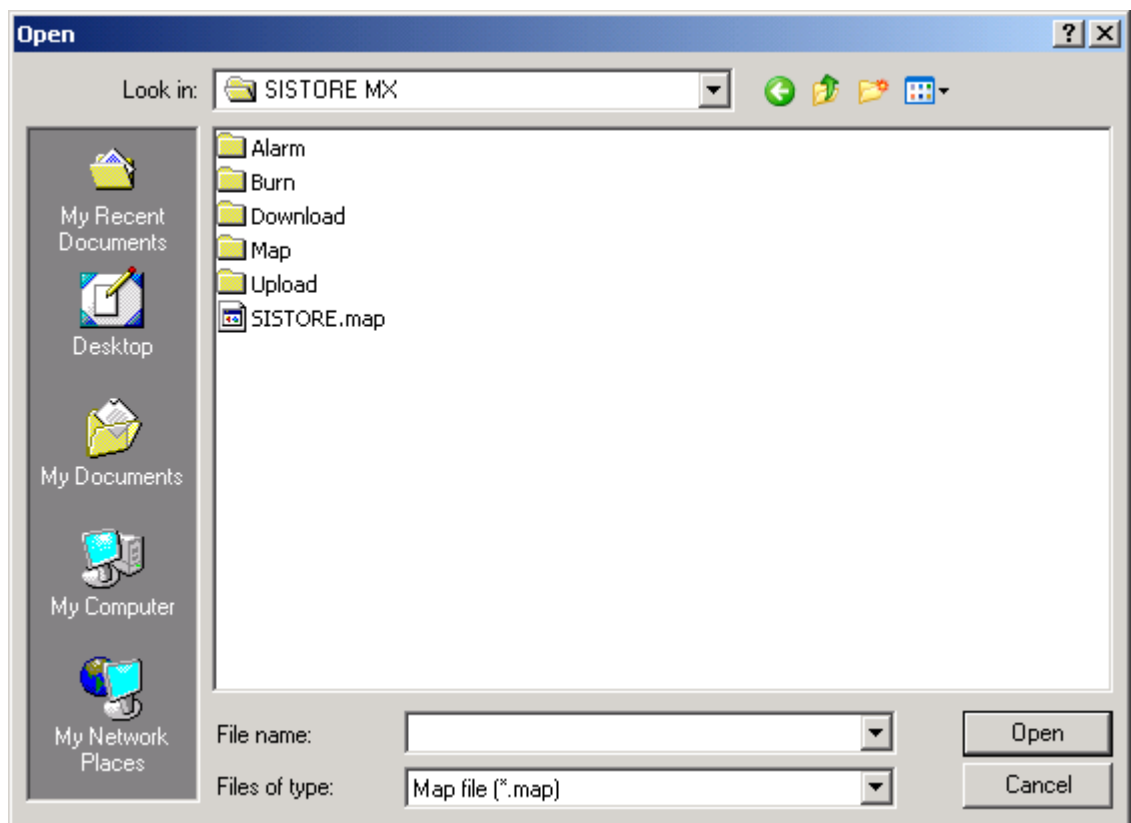


Fig. 103 "Open" dialog

3. Select the layer you want to import.
4. Click **Open**.
→ The layer will be imported.

13.5.2 Export layer

If the current configuration is composed of multiple layers, you can export a particular layer or all layers.

1. Select the **Map** tab.
2. Click the button of the desired export function.

The following export functions are available:

	Export current layer
	Export all layers

→ The following dialog box opens.

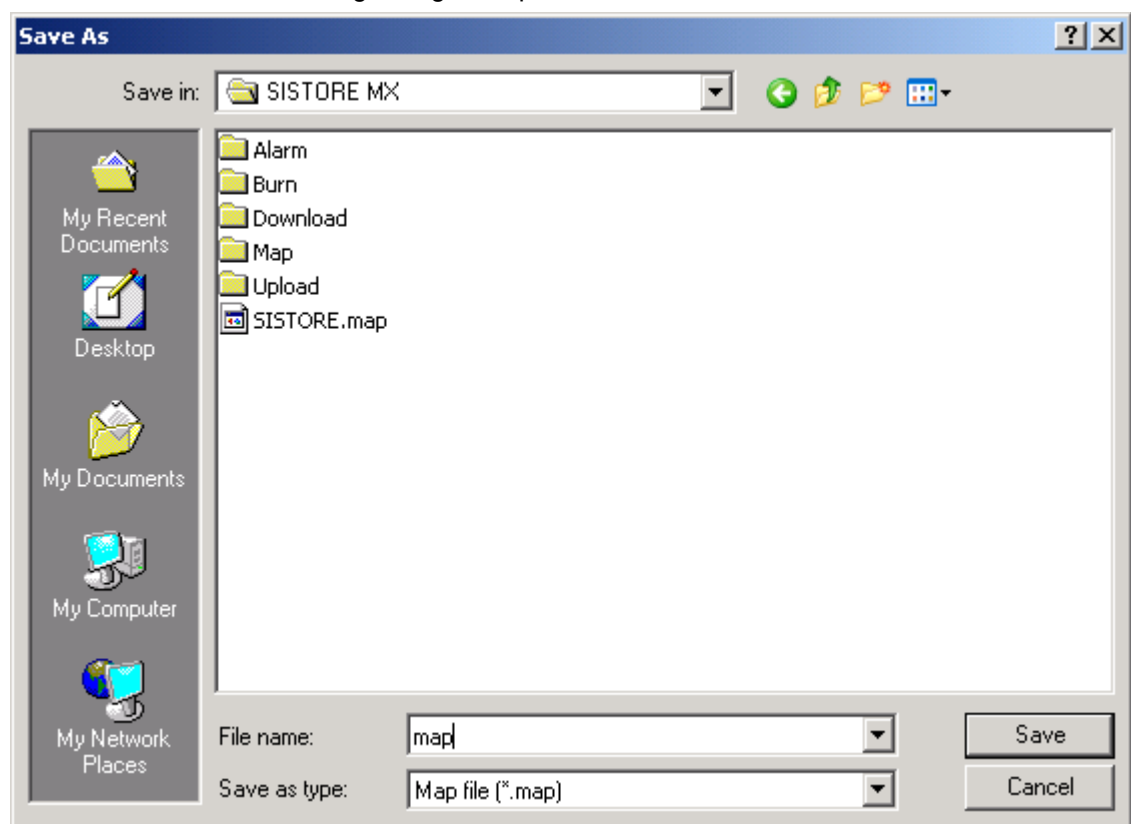


Fig. 104 "Save As" dialog

3. Select the directory in which to save the layer(s).
4. Enter a name in the **File name** field.
5. Click **Save**.

→ The layer will be saved.

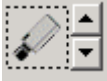
13.6 Edit object

13.6.1 Insert object

Prerequisite:

- The objects that are used in the map have been configured.

1. Select the **Map** tab.
2. Select an **Object type** in the **Objects** group field. The following object types are available:

	Camera object type: With the camera object type you can indicate the direction of the camera using one of the following icons: 
	Alarm input object type
	Alarm output object type
	Map object type The map object type enables switching to another map listed in the tree.
	Delete button The delete button deletes all objects of the selected level.

→ Depending on the object type selected, the available elements of this object type will be shown in the selection list:

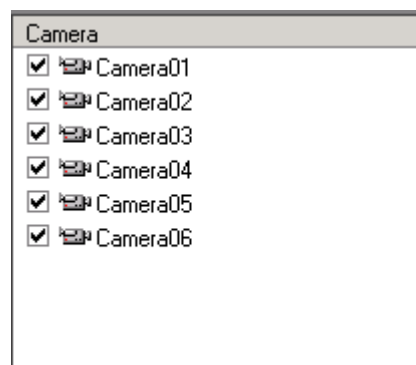


Fig. 105 Selection list of the camera object type

3. Select the desired camera from the list.
 - If a camera was selected in the selection list for the camera object type, its live image is shown in the window at the top right.
4. Left-click on the desired position of the object on the map.
 - The object will be inserted at this position on the map.
 - The placement of the object is confirmed in the selection list by a mark in the checkbox.
5. Click **Apply**.
 - The setting will be saved.



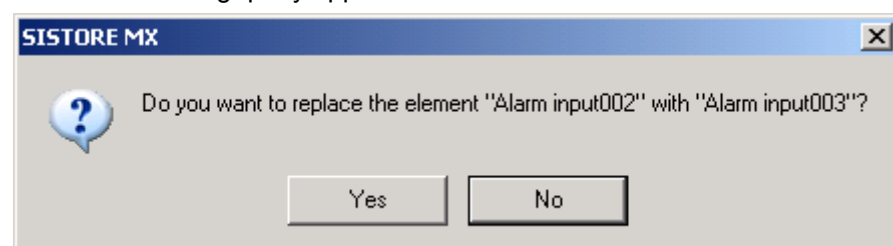
An object can be configured in multiple levels but only once in each level.

13.6.2 Change object

Individual objects within an object type can be changed subsequently.

1. Select the **Map** tab.
2. Select the desired object type in the **Object** field.
3. Select the desired object from the selection list.
4. Left-click on the object to be replaced on the map.

→ The following query appears:

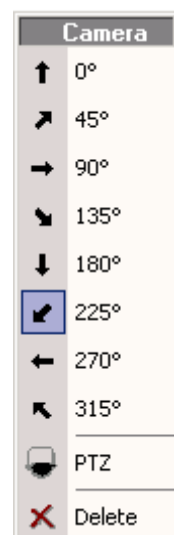


5. Answer **Yes** in the confirmation dialog.
→ The object will be changed.
6. Click **Apply**.
→ The setting will be saved.

13.6.3 Change camera icon

You can use the context menu to change the camera icon for a camera later on the map.

1. Select the **Map** tab.
2. Right-click on the relevant camera icon.
→ The following context menu will open:



3. Click on the desired camera icon.
 - The icon to be changed will be replaced by the desired icon.
4. Click **Apply**.
 - The setting will be saved.

13.6.4 Change object position

1. Select the **Map** tab.
2. Left-click on the relevant object.
3. Hold down the mouse button.
4. Move the object to the desired position.
5. Release the mouse button.
 - The object will be located at the desired position.
6. Click **Apply**.
 - The setting will be saved.

13.6.5 Delete object

Deleting individual objects

1. Remove the checkmark in front of the relevant object in the selection list.
 - OR –
 - Select **Delete** from the context menu of the object.

Deleting all objects

1. Select the **Map** tab.
2. Click the  button in the **Objects** group field.
 - All objects in the corresponding layer will be deleted.

14 Configuring user and access management

14.1 General information on user management

14.1.1 User groups

There are four user groups:

- Administrator: has all rights
- Installer: has all rights except the administration right
- User administrator: has the rights user management, database management and delete. The rights of the user group User can also be assigned.
- User: can have the rights start/stop, remote control, remote access, playback, audio playback, export and cash dispenser search if they have been assigned.



Assign the user group **Administrator** only to users who install complete systems (such as system administrators).

For security reasons, assign all other users only the user group and rights they actually need. Then input windows that are not needed will not be shown.

Assignment of rights to user groups

The following table gives information on the user groups and the assignment of rights to these groups.

User rights		Administrator	Installer	User Administrator	User
Administration	+	x	-	-	-
Installation	+	x	x	-	-
Configuration		x	x	-	-
User management	+	x	x	x	-
Database		x	x	x	-
Deleting		x	x	x	-
Start/Stop	+	x	x	x	o
Live audio	+	x	x	x	o
Remote control	+	x	x	x	o
Remote access	+	x	x	x	o
Playback	+	x	x	x	o
Audio playback	+	x	x	x	o
Cash box search	+	x	x	x	o
Export	+	x	x	x	o
Display (cam)	+	x	x	x	o
PTZ (cam)	+	x	x	x	o
Camera playback (cam)	+	x	x	x	o

x	The user has this as a basic right
-	The user never has this right
o	The user can have this right assigned
(cam)	Camera-specific right
+	The right can be individually configured

As can be seen in the table above, the user groups **Administrator**, **Installer** und **User Administrator** have fixed, predefined rights. Only the user group **User** can have individual rights assigned.

14.1.2 Global user rights

Global user rights apply to all cameras. Global user rights are described in the table below.

User right	Description
Administration	Configure all system settings
Installation	Configure system settings, with restrictions
Configuration	- Create and delete users and assign rights - Configure the user interface - Configure hardware components
User management	- Create new users - Deleting existing users - Change the rights of users
Database management	- Edit the database during playback, for example: - Create a backup of the database - Create a new database, test and repair the database and re-index the database. Prerequisite: playback right.
Deleting	Delete messages and recordings Prerequisite: playback right.
Start/Stop	- Start, pause and end recording. - Terminate SSTORE MX
Remote control	- Activate and deactivate alarm outputs either locally at the server or via RemoteView - Control PTZ camera Prerequisite: These have been configured appropriately
Remote access	Log on to the system via SSTORE RemoteView Remote maintenance and remote surveillance
Playback	- The prerequisite to receiving a camera-specific playback right. - Prerequisite for audio playback
Audio playback	Play back audio recordings. Prerequisite: playback right.

User right	Description
Export	Export recordings and save them in some form, for example: ● Create AVIs ● Create individual images (BMP or JPG) ● Print images Prerequisite: playback right.
CDM search	● Start a CDM search with a cash dispenser system and activated bank mode Playback authorisation is not mandatory for this. A user who has CDM search authorisation without playback authorisation can switch to playback mode but he can only carry out CDM search functions. They see no logbook, for example. The "CDM search" right is available in the user configuration, but only for systems with a CDM license and activated bank system.

14.1.3 Camera-related user rights

Camera-related user rights are rights that can be assigned to a user only for specific cameras. Camera-related user rights are described in the table below.

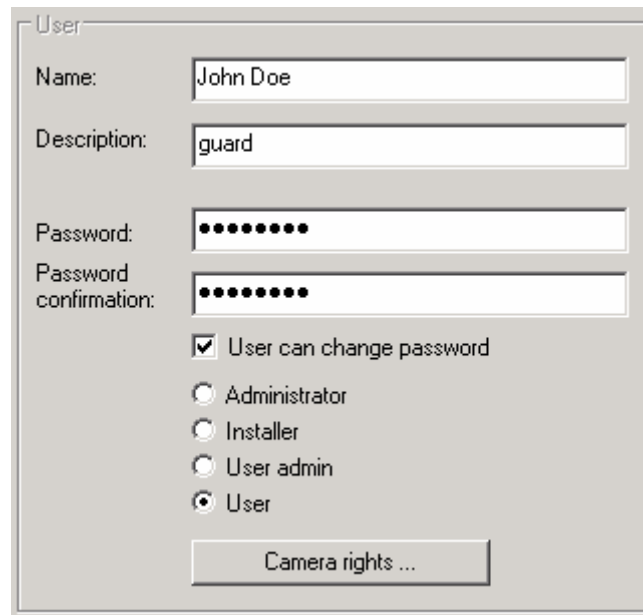
Right	Description
Display	● View the live images of a camera DISPLAY is a camera-related authorisation DISPLAY authorisation is not necessary to play the recordings of a camera. The camera-related or global playback authorisation is sufficient for this.
PTZ	● Control a PTZ camera Prerequisite: DISPLAY authorisation for the particular camera.
Playback	● Play the recordings of a camera Prerequisite: Global playback authorisation The playback right has no meaning for cash dispenser cameras and cash box cameras. For cash dispenser cameras the global CDM search right applies; for cash box cameras the global cash box right applies. ● Start cash box search with a cash box system. This is only possible for systems with a cash box license or only with bank systems.

14.2 User account configuration

14.2.1 Creating and changing user accounts

User name	Description
 Administrator	Administrator
 Installer	Installer
 John Doe	User

Fig. 106 User account list on the User management tab



The dialog box is titled 'User'. It contains the following fields and options:

- Name:** Text field containing 'John Doe'.
- Description:** Text field containing 'guard'.
- Password:** Password field with 8 dots.
- Password confirmation:** Password field with 8 dots.
- ☒ **User can change password**
- ☐ **Administrator**
- ☐ **Installer**
- ☐ **User admin**
- ☒ **User**
- Camera rights ...** button

Fig. 107 User group field on the user management tab

Prerequisite:

- You have the right user management. See Section 14.1.1 User groups.

1. Select the **User management** tab.
2. Click the **Add** button  below the user account list.
→ A new line will be added to the user account list.



If the text fields **Name**, **Password** and **Password confirmation** are not filled in completely or no user rights have been assigned, an error message will be displayed.

3. Enter a name for the user account in the **Name** text field.
4. Enter a short description in the **Description** text field.
5. Enter a password with at least eight characters in the **Password** text field.
6. Re-enter the password in the **Password confirmation** text field.

If users who are logged in to this account may change the password:

7. Mark the checkbox **User can change password**.

8. To assign a user category to the user, click the radio button **Administrator**, **Installer**, **Useradmin** or **User**.
9. If you have chosen the **User** radio button:
Mark the desired checkboxes in the **User rights** group field.

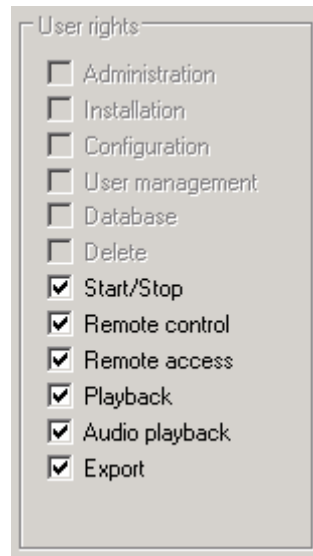
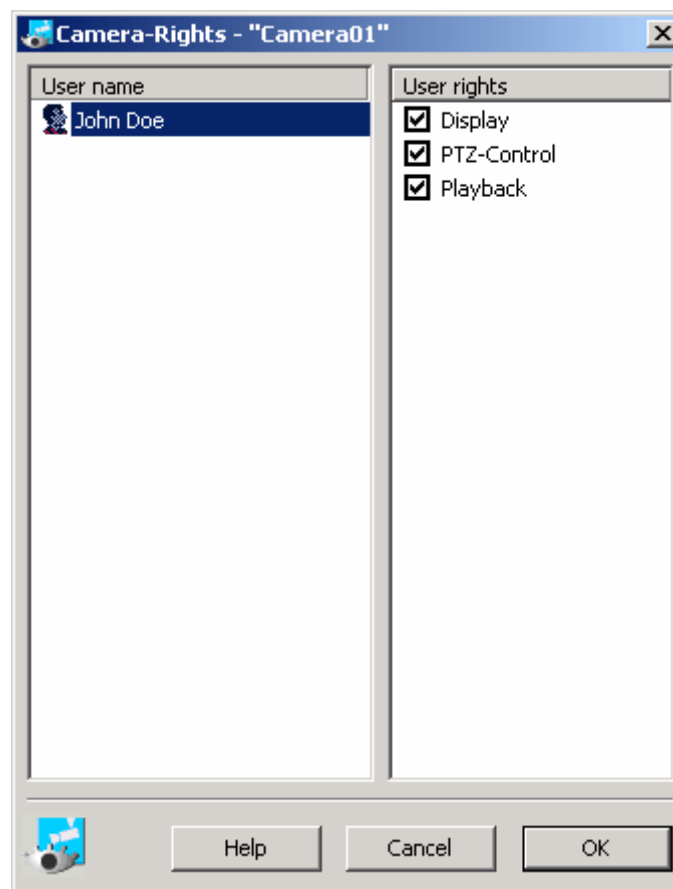


Fig. 108 User rights group field on the user management tab

10. Click the **Camera rights...**
→ The following dialog box opens.



11. Select the camera.
12. In the **User rights** field, select or deselect the checkboxes as desired.

13. Repeat steps 2 and 12 as often as required.



- If a new user is created, this user automatically receives the same rights for each camera as the user who created the new user.
- If a new camera is created, all users automatically receive all rights for this camera at first. If individual users are not to have all rights for the camera, these rights must be manually revoked after setting up the camera.

14. Click **OK**.

14.2.2 Deleting user accounts

User name	Description
Administrator	Administrator
Installer	Installer
John Doe	User

Fig. 109 User account list on the User management tab

Prerequisite:

- You have the right user management. See Section 14.1.1 User groups.

1. Select the **User management** tab.
2. Select the user account you want to delete in the list.
3. Click the **Delete** button
4. Answer **Yes** in the confirmation dialog.
 - The user account will be deleted from the user account list.

14.2.3 Locking user accounts



After a password is entered incorrectly three times, the user account will be blocked. To unlock: See Section 14.2.4 Unlocking a user account.

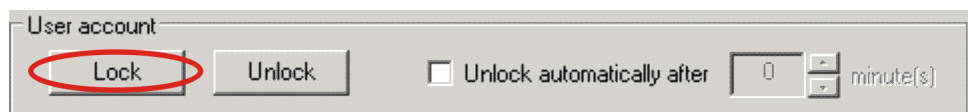


Fig. 110 Lock button on the User management tab

Prerequisite:

- You have the right user management. See Section 14.1.1 User groups.

1. Select the **User management** tab.
2. Select the user account you want to lock from the user account list.
3. Click **Lock**.
4. Click **Apply**.
 - The setting will be saved. The user account is locked.

14.2.4 Unlocking a user account

You can unlock a user account manually or automatically.

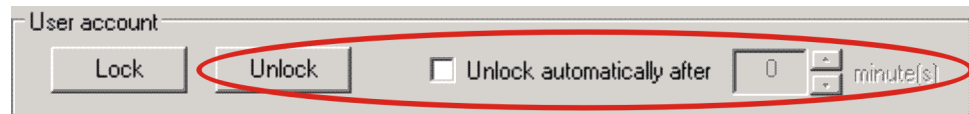


Fig. 111 User account group field on the User management tab

Manually unlocking a user account

Prerequisite:

- You have the right user management. See Section 14.1.1 User groups.

1. Select the **User management** tab.
2. Select the user account you want to unlock from the user account list.
3. Click **Unlock**.
4. Click **Apply**.
 - The setting will be saved. The user account is unlocked.

Automatically unlocking a user account

Prerequisite:

- You have the right user management. See Section 14.1.1 User groups.

1. Select the **User management** tab.
2. Select the user account you want to unlock automatically from the user account list.
3. Mark the checkbox **Unlock automatically after**.
4. Enter a value in minutes in the **minute(s)** text field.
5. Click **Apply**.
 - The setting will be saved. The user account will be unblocked after the time entered has passed.

14.2.5 Predefined user accounts: Administrator and Installer



Only use the user account Administrator if it is necessary!

The software is shipped with two user accounts already set up: Administrator and Installer. The associated passwords are Administrator and Installer respectively.

Change these passwords during the operational setup of the SISTORE MX unit.

Both of these user accounts cannot be deleted, and configuration of them is restricted:

- Administrator: has all rights
- Installer: has all rights except the administration right

Users with only basic knowledge of SISTORE MX should only work with the user account Installer or with another limited user account.

14.2.6 Configuring the validity period of a password

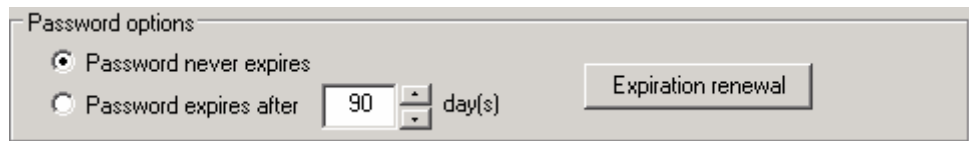


Fig. 112 Password options group field on the User management tab

Limiting the validity period of a password

Prerequisite:

- You have the right user management. See Section 14.1.1 User groups.

1. Select the **User management** tab.
2. Select the option **Password expires after**.
3. Enter a value in the **day(s)** field to indicate how many days the password is to be valid.
4. Click **Apply**.
 - The setting will be saved.

Extending the validity period of a password

Prerequisite:

- You have the right user management. See Section 14.1.1 User groups.

1. Select the **User management** tab.
2. Click **Expiration renewal**.
3. Click **Apply**.
 - The validity of the password will be extended by the number of days specified in the **day(s)** text field. The date from which the extension is calculated is the current one.

Removing the restriction of validity of a password

Prerequisite:

- You have the right user management. See Section 14.1.1 User groups

1. Select the **User management** tab.
2. Select the option **Password never expires**.
3. Click **Apply**.
 - The setting will be saved.

14.3 Enabling password-protected start of the SISTORE MX application software

If password protection is enabled, a user name and password must be entered to start the SISTORE MX application software.

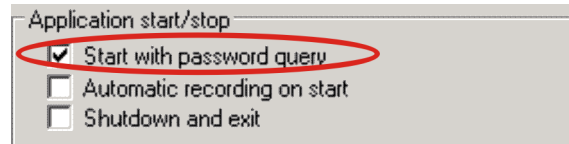


Fig. 113 Start with password query checkbox on the System tab

1. Select the **System** tab.
2. Mark the checkbox **Start with password query**.
3. Click **Apply**.
→ The setting will be saved.

14.4 Configuring the logbook

14.4.1 Enabling extended logbook entries

If this option is enabled, an entry will be written in the logbook during printing, saving of individual images or the export of sequences.

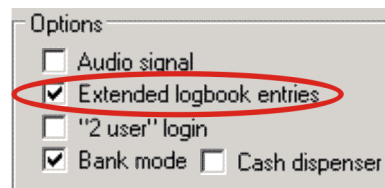


Fig. 114 "Extended logbook entries" checkbox on the "System" tab

1. Select the **System** tab.
2. Select the **Extended logbook entries** checkbox in the **Options** group field.
3. Click **Apply**.
→ The setting will be saved.

14.4.2 Compressing the database daily

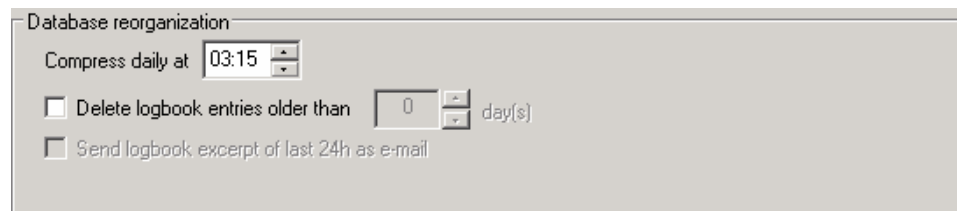


Fig. 115 "Database reorganization" group field on the "Database" tab

1. Select the **Database** tab.
2. Set the time at which the daily compression shall take place in the **Database reorganization** group field.

3. Click **Apply**.
→ The settings will be saved.

14.4.3 Deleting logbook entries automatically

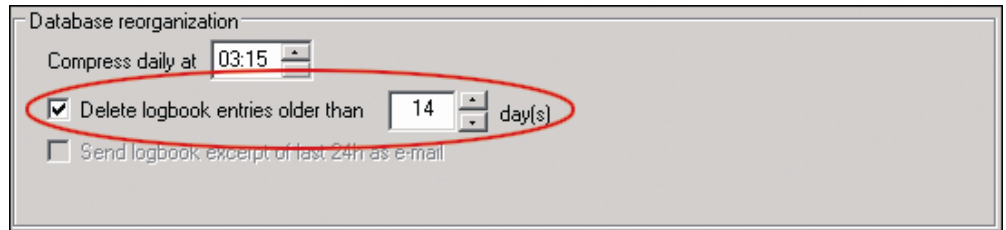


Fig. 116 "Delete logbook entries..." checkbox on the "Database" tab

1. Select the **Database** tab.
2. Mark the checkbox **Delete logbook entries....**
3. Enter a value in the **day(s)** text field.
4. Click **Apply**.
→ The setting will be saved.



These old logbook entries will be deleted when the next daily compression takes place (see Section 18.4.2: Compressing the database daily).

14.4.4 Sending logbook excerpts automatically

This option is only available if the sending of e-mail is configured. See Section 19.1 Configuring e-mail notification.

If this option is enabled, SSTORE MX will send an e-mail every 24 hours with an excerpt consisting of the entries of the last 24 hours from the logbook.

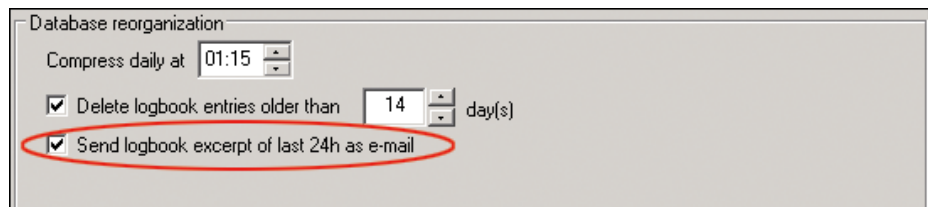


Fig. 117 "Send logbook excerpt..." on the "Database" tab

1. Select the **Database** tab.
2. Mark the checkbox **Send logbook excerpt of last 24h as e-mail**.
3. Click **Apply**.
→ The setting will be saved.

14.5 Enabling software triggering



The checkbox Enable software trigger is only available if bank mode is not enabled.

If this option is enabled, the SISTORE MX application software can communicate with other programs, such as IVM.

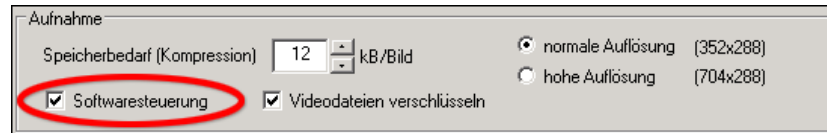


Fig. 118 "Enable software trigger" checkbox on the "System" tab

1. Select the **System** tab.
2. Select the **Enable software trigger** checkbox in the **Recording** group field.
3. Click **Apply**.
→ The setting will be saved.

14.6 Enabling control panel control



The Operating console group field is only visible if the CKA 4810 or CKA 4820 driver is installed. Information on this can be found in the SISTORE MX / MX 3G Installation Manual.

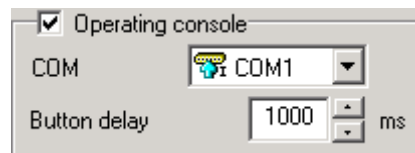


Fig. 119 "Operating console" group field on the "System" tab

1. Select the **System** tab.
2. Mark the checkbox **Operating console**.
→ The **Operating console** group field will be enabled.
3. Select the interface to which your control panel is connected from the **COM** dropdown field.
4. Enter a value in milliseconds in the **Button delay** text field.
→ If no keyboard input takes place within the specified time, the entry is considered complete.
5. Click **Apply**.
→ Your settings will be saved.

15 Configuring multi-monitor mode



In order to use multi-monitor mode, the monitors must be configured in Windows: **Start > Control Panel > Display > Settings**. Please note that the configuration of the monitors in Windows can only be changed when the SISTORE MX application software is closed.

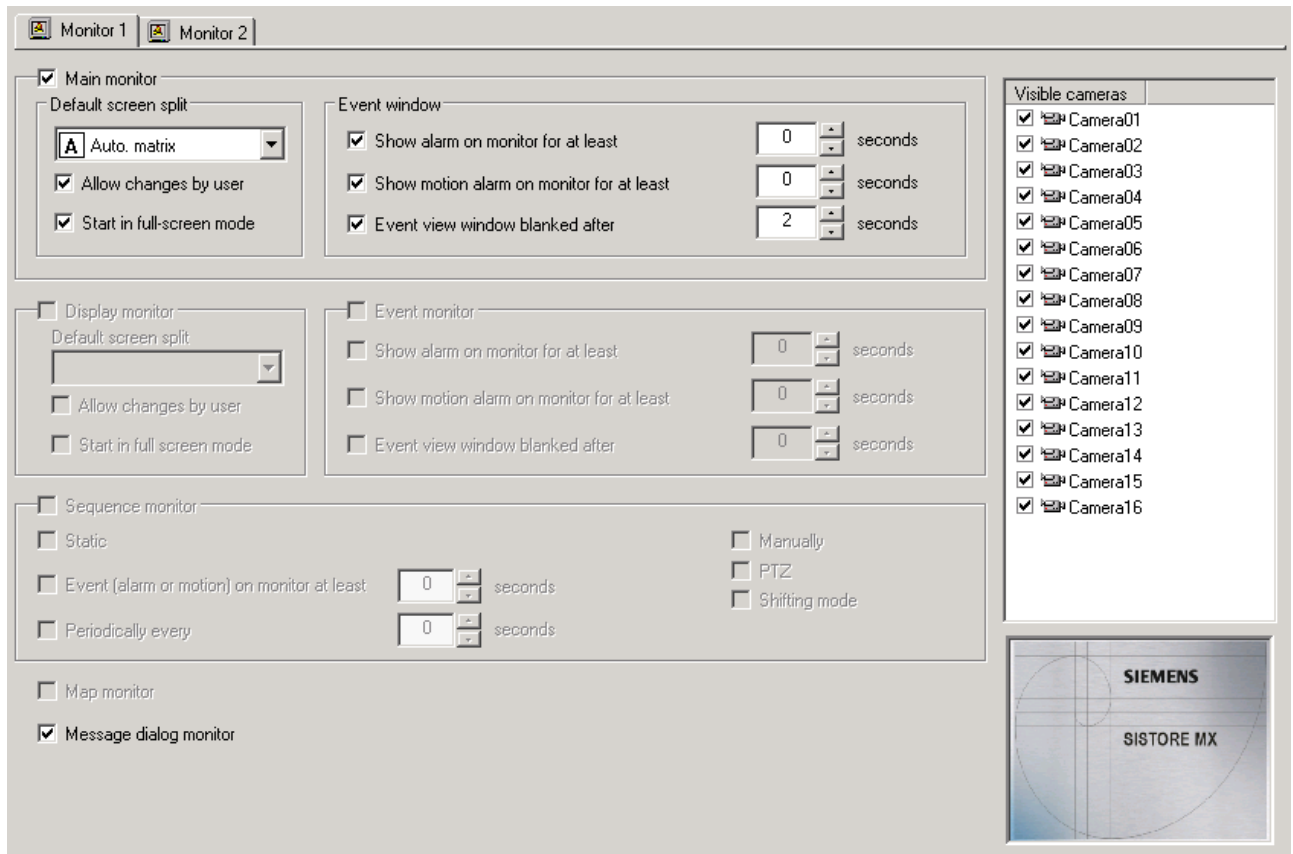


Fig. 120 SISTORE MX – Configuration of multi-monitor mode with 2 monitors

In multi-monitor mode, the SISTORE MX application software supports up to 4 monitors. The individual monitors can be configured in the following manner:

- as main monitor
See Section 15.1 Configuring a monitor as the main monitor.
- as display monitor
See Section 15.2 Configuring a monitor as a display monitor.
- as event monitor
See Section 15.3 Configuring a monitor as an event monitor.
- as sequence monitor
See Section 15.4 Configuring a monitor as a sequence monitor.
- as site plan monitor
See Section 15.5 Configuring a monitor as a site plan monitor.
- as message dialog monitor
See Section 15.6 Configuring a monitor as a message dialog monitor.

15.1 Configuring a monitor as the main monitor

The main monitor displays the operator interface of the application software. The application software can be configured and operated via this monitor.



IMPORTANT

Exactly 1 monitor must be configured as the main monitor.

Fig. 121 Multi-monitor tab – Configuration of the main monitor

Prerequisite:

- The main monitor has not been configured yet.

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Main monitor**.
3. Select the desired view on the main monitor when the application software is started in the **Default screen split** list box.

Option	Meaning
Auto. matrix	The live images of all configured cameras will be displayed.
No display	No live images will be displayed until a user logs in.
<Number of cameras>	The live images of x cameras will be displayed.
Event view	The event view will be displayed.
Map	The map is opened.

4. If the user is to be able to change the screen split during operation, mark the checkbox **Allow changes by user**.
 - The buttons for selecting changing the screen split will be enabled.
5. If the display area is to be shown on the full screen of the main monitor when the application software is started, mark the checkbox **Start in full screen mode**.



To exit full screen mode press **Esc**.

6. If you want to view events on the main monitor, mark the corresponding checkboxes and select the duration in seconds in the **Event window** group field:

Option	Meaning
--------	---------

Option	Meaning
Show alarm on monitor for at least ... seconds	Minimum time for which an alarm event will be displayed. New alarm events will not be displayed during this time. You can select a time between 0 and 60 seconds. 0 seconds means that an image will be removed from the screen as soon as another alarm event occurs.
Show motion alarm on monitor for at least ... seconds	Minimum time for which a motion alarm event will be displayed. New motion alarm events will not be displayed during this time. You can select a time between 0 and 60 seconds. 0 seconds means that an image will be removed from the screen as soon as another motion alarm event occurs.
Event view window blanked after ... seconds	Period of time after which the event view window will be blanked. You can select a time between 2 and 300 seconds.

7. Select the cameras whose live images are to be displayed on the main monitor by marking the corresponding checkboxes in the **Visible cameras** list (see Fig. 120).
8. Click **Apply**.
→ Your settings will be saved.

15.2 Configuring a monitor as a display monitor

The display monitor displays live images.

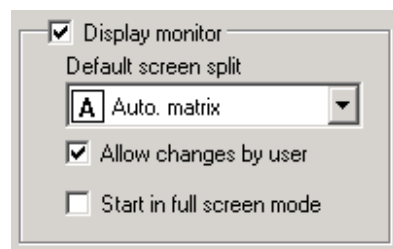


Fig. 122 Multi-monitor tab – Configuration of the display monitor

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Display monitor**.
3. Select the desired view on the display monitor when the application software is started in the **Default screen split** list box.

Option	Meaning
Auto. matrix	The live images of all configured cameras will be displayed.
No display	No live images will be displayed until a user logs in.
<Number of cameras>	The live images of x cameras will be displayed.
Event view	The event view window is opened.
Map	The map is opened.

4. If the user is to be able to change the screen split during operation, mark the checkbox **Allow changes by user**.
→ The buttons for changing the screen split will be enabled.
5. If the display area is to be shown on the full screen of the display monitor when the application software is started, mark the checkbox **Start in full screen mode**.



To exit full screen mode press **Esc**.

6. Select the cameras whose live images are to be displayed on the display monitor by marking the corresponding checkboxes in the **Visible cameras** list (see Fig. 120).
7. Click **Apply**.
→ Your settings will be saved.

15.3 Configuring a monitor as an event monitor

The event monitor displays events. An event can be either a movement or an alarm.



When an event monitor has been configured, it is no longer possible to display events on the main monitor.

Fig. 123 Multi-monitor tab – Configuration of the event monitor

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Event monitor**.
3. Mark the corresponding checkboxes and enter the duration in seconds in the **Event monitor** group field:

Option	Meaning
Show alarm on monitor for at least ... seconds	Minimum time for which an alarm event will be displayed. New alarm events will not be displayed during this time. You can select a time between 0 and 60 seconds. 0 seconds means that an image will be removed from the screen as soon as another alarm event occurs.
Show motion alarm on monitor for at least ... seconds	Minimum time for which a motion alarm event will be displayed. New motion alarm events will not be displayed during this time. You can select a time between 0 and 60 seconds. 0 seconds means that an image will be removed from the screen as soon as another motion alarm event occurs.
Event view window blanked after ... seconds	Period of time after which the event view window will be blanked. You can select a time between 2 and 300 seconds.

4. Select the cameras whose event images are to be displayed on the event monitor by marking the corresponding checkboxes in the **Visible cameras** list (see Fig. 120).
5. Click **Apply**.
→ Your settings will be saved.

15.4 Configuring a monitor as a sequence monitor

On a sequence monitor, live images can be displayed in an automatic cycle, by event-based control, or by manual control.

☒ Sequence monitor
☐ Static
☒ Event (alarm or motion) on monitor at least seconds
☐ Periodically every seconds
☐ Manually
☐ PTZ
☐ Shifting mode

Fig. 124 Multi-monitor tab – Configuration of the sequence monitor

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Sequence monitor**.
3. Mark the corresponding checkboxes and enter the duration in seconds as necessary:

Option	Meaning
Static	A camera from the Visible cameras list is fixedly assigned to the sequence monitor. The live image of no other camera can be displayed on this monitor.
Manually	The fixed assignment of a camera to a monitor (by activating "Static") can be changed using the context menu of the live image in the display mode. A camera can now be activated on another video output. It is also possible to activate a camera on one of the four video outputs via SISTORE RemoteView.
Event (alarm or motion) on monitor at least ... seconds	Prerequisite: The checkbox Camera to monitor output on the Recording tab has been marked. See Section 17.3 Configuring recording modes. If an event occurs, the live image of the selected camera will be connected to the sequence monitor. This live image will be displayed at least for the set period of time even if there is an event on another camera.
PTZ	A PTZ camera is connected as soon as it is controlled.
Periodically every... seconds	Cameras can be selected from the Visible cameras list and their images be displayed successively on the sequence monitor. The selected cameras will be switched in a preset cycle. The dwell time can be set between 2 and 300 seconds.
Shifting mode	Prerequisite: Shifting mode has been configured for 2 sequence monitors. The current alarm image is displayed on the first sequence monitor. This alarm image will be shifted to the second sequence monitor when another alarm occurs. The new alarm image will be displayed on the first sequence monitor. If shifting mode is not activated, the alarm images will be displayed as the events occur on all sequence monitors simultaneously.

4. Click **Apply**.
→ Your settings will be saved.

15.5 Configuring a monitor as a site plan monitor

On a site plan monitor, the site plan is displayed in full screen mode.

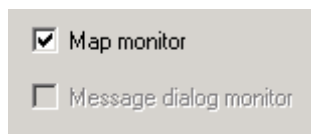


Fig. 125 Multi-monitor tab – Configuration of the site plan monitor

Prerequisite:

- A site plan has been configured. See Section 13 Map configuration.
- A site plan monitor has not been configured yet.

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Map monitor**.
3. Click **Apply**.
 - The setting will be saved.

15.6 Configuring a monitor as a message dialog monitor

The message dialog monitor displays all pop-up dialogs. The main monitor can also be configured as a message dialog monitor.



IMPORTANT

Exactly 1 monitor must be configured as a message dialog monitor.

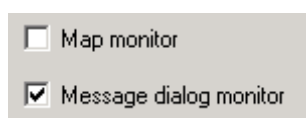


Fig. 126 Multi-monitor tab – Configuration of the message dialog monitor

Prerequisite:

- A message dialog monitor has not been configured yet.

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Message dialog monitor**.
3. Click **Apply**.
 - The setting will be saved.

16 Configuring the user interface of the SISTORE MX application software

16.1 Selecting the user interface language



Languages can be added to the SISTORE MX application software after installation. To do so, copy the corresponding language files with the DLL extension into the C:\Program Files\CEVIS\SISTORE directory.

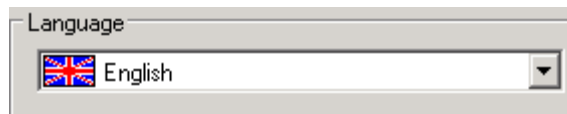


Fig. 127 "Language" dropdown list on the "System" tab

1. Select the **System** tab.
2. Select a language version from the **Language** drop-down list.
If you select the entry **automatic**, the SISTORE MX application software starts in the language set as the regional language in the operating system.
3. Confirm the message that follows with **OK**.
4. Click **OK**.
5. Answer **Yes** in the confirmation dialog.
 - The setting will be saved and the SISTORE MX application software will close.
6. Start the SISTORE MX application software (see Section 5.16 Starting the SISTORE MX application software and logging in).
 - The SISTORE MX application software now uses the selected language.

16.2 Configuring the display area

16.2.1 Configuring the recording status display

In the **Record status display** group field, you can define whether the recording status is shown as a symbol or a symbol and text on the live image or is not shown.



Fig. 128 Live image with recording status display overlaid

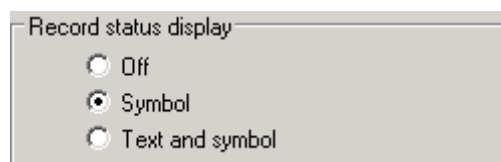


Fig. 129 "Record status display" group field on the "System" tab



You can observe the changes you make on the live image.

1. Select the **System** tab.
2. Select the desired option in the **Record status display**.
3. Click **Apply**.
→ The setting will be saved.

16.2.2 Configuring live image dwell times

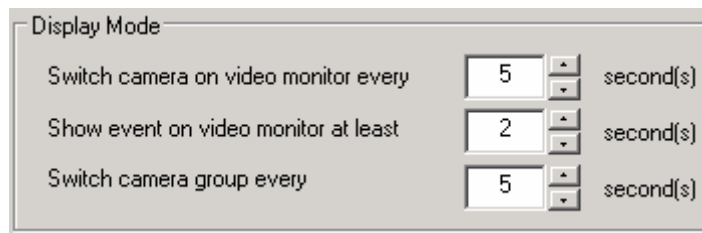


Fig. 130 "Display Mode" group field on the "System" tab

Prerequisite:

- At least one analog camera or LAN camera has been configured and is connected to the SISTORE unit. See Section 7.1 Adding an analog camera or Section 8.2 Adding a LAN camera.

1. Select the **System** tab.
2. In the field **Switch camera on video monitor every** select the period after which the view is switched to the next camera.
3. In the field **Show event on monitor at least** choose how long live images are to be shown during an event.
4. Select the period after which the next camera group will be displayed in the box **Switch camera group every**.



Switching times can be selected between 2 and 600 seconds.

5. Click **Apply**.
→ The setting will be saved.

16.2.3 Blanking the event view window



When this option is activated, the event view window will be blanked after the preset post-event recording time has expired (see Section 17.3 Configuring recording modes). This means that the camera picture is displayed only during the alarm and the preset post-event recording time.

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Event view window blanked after**.
☒ Event blackout
3. Set the number of seconds after which the event view window is to be blanked using the arrow buttons.
4. Click **Apply**.
→ Your settings will be saved.

16.2.4 Enabling frame rate display

The **Display framerate** checkbox can be used to determine whether the frame rate is shown on the live image. This function is only for checking the frame rate, and in contrast to the name of the camera or the date and time, it is not saved.



The value shown can deviate from the actual frame rate.

The frame rate display appears only after recording 10 frames of the live image, after which a value is calculated. At a slow frame rate this can require considerable time.



Fig. 131 Live image with frame rate shown

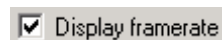


Fig. 132 "Display framerate" checkbox on the "System" tab



It is not necessary to stop the recording process.

1. Select the **System** tab.
2. Mark the checkbox **Display framerate**.
3. Click **OK**.
 - The setting will be saved.

16.2.5 Showing motions

By marking the checkbox **Show motions** you can define that moving objects will be marked in the live image. This function is only for checking the motion detection parameters **sensitivity** and **object size**, and is not saved.

Prerequisite:

- Motion detection is enabled for the selected camera. See Section 9.1 Activating motion detection .



It is not necessary to stop the recording process.

1. Select the **System** tab.
2. Mark the checkbox **Show motion**.
3. Click **OK**.
→ The setting will be saved.

16.2.6 Configuring text overlay for an analog camera

In the **Text overlay** group field you can define whether the video information (name of the camera, time and date) is shown in the video image of the SISTORE MX application software. Furthermore, the position of the video information as well as the font and background colour can be defined. To facilitate an optimal overview, it is recommended to show the video information at the same position in all video images.



No text overlay will be shown on analog video monitors connected to the SISTORE unit.



Fig. 133 Live image with video information overlay

Prerequisite:

- At least one analog camera is connected to the SISTORE unit.

See Section 7.1 Adding an analog camera.



Fig. 134 "Text overlay" group field on the "Cameras" tab

1. Select the **Cameras** tab.
2. In the camera list, select the camera for which you want to overlay the video information on the video image.
3. Mark the checkbox **Text overlay**.
→ The camera name will be overlaid.
4. Mark the checkbox **Background**.
→ The camera name will be given a white background.
5. Mark the checkbox **Date and time**.
→ The date and time will be overlaid.

There are four radio button options for determining the position of the video information.

6. Select the desired option.
→ The video information will be overlaid at the position selected.
7. Select the desired colour from the **Text colour ...** list box.
→ The video information will be shown in the colour selected.
8. Select the desired colour from the **Background colour ...** list box.
→ The background of the overlay will be shown in the colour selected.
9. Click **Apply**.
→ The setting will be saved.

16.2.7 Configuring text overlay for a LAN camera

In the **Text overlay** group field you can define whether the name of the camera, the time and the date are shown in the video image of the SISTORE MX application software. Furthermore, the position of the overlay and the font and background colour can be defined. To facilitate an optimal overview, it is recommended to show the text at the same position in all video images.



Fig. 135 Live image with overlaid camera name, time and date

Prerequisites:

- At least one LAN camera is connected to the SISTORE unit. See Section 8.2 Adding a LAN camera.

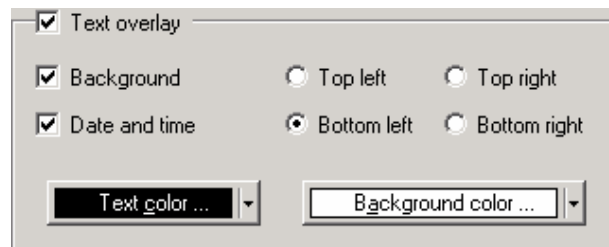


Fig. 136 "Text overlay" group field on the "LAN cameras" tab

1. Select the **LAN cameras** tab.
2. In the camera list, select the camera for which you want to overlay the text on the video image.
3. Mark the checkbox **Text overlay**.
 - The camera name will be overlaid.
4. Mark the checkbox **Background**.
 - The camera name will be given a white background.
5. Mark the checkbox **Date and time**.
 - The date and time will be overlaid.

There are four radio button options for determining the position of the text.

6. Select the desired option.

- The text will be overlaid at the position selected.
- 7. Select the desired colour from the **Text colour ...** list box.
 - The text will be overlaid in the colour selected.
- 8. Select the desired colour from the **Background colour...** list box.
 - The background of the overlay will be shown in the colour selected.
- 9. Click **Apply**.
 - The setting will be saved.

16.3 Configuring system messages

Using the **Audio signal** checkbox, you can determine whether an audio signal is given when a system message appears. Furthermore, it determines whether the user can switch audio signals on and off in the display mode.



Fig. 137 "Audio signal" checkbox on the "System" tab

1. Select the **System** tab.
2. Mark the checkbox **Audio signal**.
3. Click **Apply**.
 - The setting will be saved.

16.4 Showing the on-screen keyboard

With the checkbox **On-screen keyboard** you can determine whether the on-screen keyboard is to be displayed. The on-screen keyboard is a keyboard substitute for systems without an external keyboard. It can be operated with the mouse. The on-screen keyboard is displayed as required, e.g. when text has to be entered.

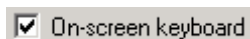


Fig. 138 On-screen keyboard checkbox on the System tab

1. Select the **System** tab.
2. Mark the checkbox **On-screen keyboard**.
 - The on-screen keyboard is displayed.



Fig. 139 On-screen keyboard

3. Click **Apply**.
 - The setting will be saved.

16.5 Enabling automatic logout

In the **Auto logout** group field you can determine whether a user is automatically logged out after a specified period of inactivity.

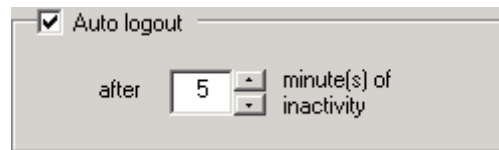


Fig. 140 "Auto logout" group field on the "System" tab

1. Select the **System** tab.
2. Mark the checkbox **Auto logout**.
3. In the **minute(s) of inactivity** field, specify the time after which the automatic logout is to occur.
4. Click **Apply**.
 - The setting will be saved.



Before the user is automatically logged off, the lock icon  in the status bar will flash for one minute. If the user performs an action during this time, the icon will stop flashing and time starts counting again.

16.6 Keeping the SISTORE MX application software in the foreground

With the checkbox **Always in foreground** you can determine whether the SISTORE MX application software is to be shown in the foreground at all times. This prevents other program windows from covering the SISTORE MX application software.

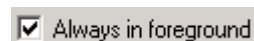


Fig. 141 "Always in foreground" checkbox on the "System" tab

1. Select the **System** tab.
2. Mark the checkbox **Always in foreground**.
3. Click **Apply**.
 - The setting will be saved.

17 Recording configuration

17.1 Enabling automatic recording on start

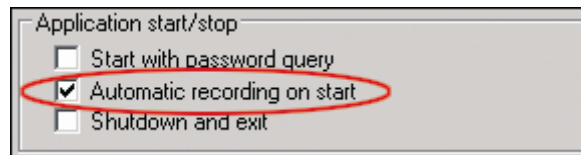


Fig. 142 "Automatic recording on start" checkbox on the "System" tab

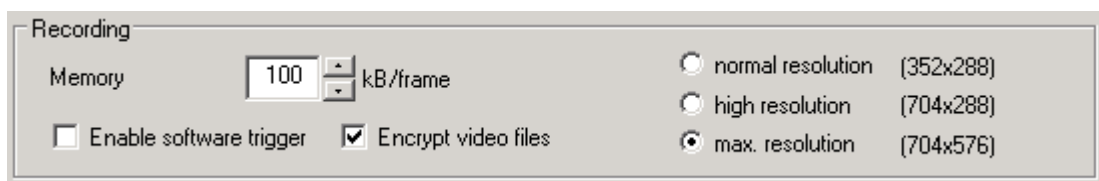
1. Select the **System** tab.
2. Mark the checkbox **Automatic recording on start**.
3. Click **Apply**.
→ The setting will be saved.

17.2 Configuring video parameters

17.2.1 Selecting video resolution



The resolution of LAN cameras is generally limited to the CIF format (352x288 pixels).



1. Select the **System** tab.
2. Select the desired video resolution:
normal resolution: CIF format
high resolution: 2CIF format
max. resolution: 4CIF format (SISTORE MX 3G only)
3. Click **Apply**.
→ The setting will be saved.

17.2.2 Configuring video compression



The higher the value in the Memory text field,

- the lower the compression
- the higher the picture quality
- the higher the hard drive capacity required

The compression set applies to all cameras connected to the SISTORE MX.

1. Select the **System** tab.
2. Enter a value in the **Memory** text field.



The value depends on the selected video resolution. See Section 17.2.1 Selecting video resolution.

normal resolution: a value between 10 and 40 kB/image

high resolution: a value between 20 and 80 kB/image

max. resolution: a value between 40 and 120 kB/image

3. Click **Apply**.
→ The setting will be saved.

17.2.3 Enabling video encryption

If video encryption is enabled, the recordings will be saved in an encrypted format. Encrypted recordings cannot be played back with an ordinary video playback program, but instead require the SISTORE Player for viewing. Video encryption also affects the export of recordings.

Encrypted recordings have the file extension k26; unencrypted recordings have the file extension avi.

1. Select the **System** tab.
2. Mark the checkbox **Encrypt video files**.
3. Click **Apply**.
→ The setting will be saved.



For information on the **Enable software trigger** checkbox please refer to Section 14.5 Enabling software triggering.

17.3 Configuring recording modes

17.3.1 General information about recording modes

On the **Recording** tab there are five sub-tabs, each of which corresponds to a recording mode:

Recording mode/Sub-tab	Visibility	Function
Long-time recording	Always visible	Continuous recording of the live image
Motion	Only visible if motion detection is enabled for at least one camera. See Section 9 Configuring motion detection.	Recording of the live image if motion is detected
Alarm input	Only visible if at least one alarm input with normal priority is configured. See Section 12 Configuring alarm inputs.	Recording of the live image in case of an alarm with normal
Priority alarm	Only visible if at least one alarm input is configured as a priority alarm. See Section 12 Configuring alarm inputs.	Recording of the live image in case of a priority alarm
Software trigger	Only visible if software control is enabled. See Section 14.5 Enabling software triggering.	Recording of the live image with a software trigger

Tab. 4 Overview of the recording modes

The recording modes can

- be configured separately for each camera
- be combined with one another. See Section 17.3.2 Combination example for recording modes.

The recording settings can be transferred easily to other cameras. See Section 17.3.3 Transferring recording settings.

The following **colours in the time table** have been assigned to the recording modes:

- Blue: Long-time recording
- Green: Motion
- Red: Alarm input

No colour is assigned to the Priority alarm mode; it is always active if at least one alarm input is configured as a priority alarm.

There is also no colour assigned to the Software trigger recording mode; it is always active if software control is enabled.

You have the following setting options in the recording modes:

Fig. 143 Control elements on the Recording tab

Setting	Function	Note
Pre-trigger period Duration	The period prior to an event (movement, alarm or software trigger) which is recorded after the event occurs. You can set a time between 10 s and 360 min.	Only available - in the recording modes motion, alarm input, priority alarm and software trigger - if long-time recording is not enabled for all time segments, - if the Single shot checkbox is not marked.
Pre-trigger / long-time recording Frame rate	The frame rate at which the pre-alarm and long-time recording is to be saved.	Applies to all recording modes of a camera; it cannot be set differently for the various recording modes. Software trigger We recommend setting the frame rate of cash box cameras to 2.0/s.
Track length limitation	The limitation of the hard drive capacity taken up by a camera. The SISTORE MX application software checks the total recording duration of the camera every hour; if it exceeds the track length duration, older recordings for this camera will be overwritten.	Write-protected recordings will not be overwritten and can thus be longer than the track length limitation setting. Use the track length limitation if you want to prioritize cameras: limit the recording duration of less important cameras in order to keep more hard drive capacity free for more important cameras.

Setting	Function	Note
Post-trigger period Duration	The period which is recorded after an event. You can set a time between 1 s and 360 min.	Only available - in the recording modes motion, alarm input, priority alarm and software trigger - if the Single shot checkbox is not marked. If another event is detected during the post-trigger period, it is extended by the value set. At least 10 frames will always be recorded. The post-trigger period can also be controlled via software (such as IVM); in this case, the software control settings take priority over the settings of the SISTORE MX application software.
Frame rate	The frame rate at which the post-alarm recordings are to be saved.	Only available - in the recording modes alarm input, priority alarm and software trigger - if the Single shot checkbox is not marked. - Software trigger We recommend setting the frame rate of cash box cameras to 4.0/s.
Single shot	Instead of a video sequence, only up to 5 single images will be recorded. These individual images will be recorded at the maximum frame rate of the camera.	Only available in the recording modes alarm input, software trigger.
Logbook entry	When an event occurs, an entry will be written in the logbook.	Only available in the recording modes alarm input, priority alarm and software trigger and suspicion
Camera to monitor output	If an event occurs, the live image of the selected camera will be activated on a monitor.	Only available - for analog cameras - in the recording modes motion, alarm input, priority alarm and software trigger - if the checkbox "External video monitor" on the "Cameras" tab is marked for the particular camera. - if a video output has been configured appropriately.
Write protection	If enabled, the recordings of the selected camera cannot be overwritten.	Only available in the recording modes alarm input, priority alarm and software trigger.
Alarm call	In case of an event, a connection will be made to a SISTORE RemoteView client and the live image of the selected camera is shown there.	Only available - in the recording modes motion, alarm input and priority alarm - if the connection is configured on the Alarm connection tab (see Section 19.3 Configuring alarm notification). The login to the SISTORE RemoteView client takes place automatically.
Alarm list entry	When an alarm occurs, a list of the incoming alarm messages can be displayed on the SISTORE RemoteView at the left edge of the screen.	Only available in the recording modes "Alarm input" and "Software trigger" if the alarm connection is configured on the "Alarm connection" tab.

Setting	Function	Note
Can be cancelled by user	When the function alarm message is activated, the user can cancel an alarm after having acknowledged the alarm message.	Only available in the recording modes alarm input, motion detection and priority alarm.
FTP	In case of an alarm, the alarm message will be stored as an MSG file and an alarm image as a JPG in the directory that was selected on the FTP tab as root directory of the FTP server.	Only available • in the recording modes motion, alarm input, priority alarm and suspicion • if an FTP server is configured on the FTP tab.
E-mail/SMS	When an event occurs, the text entered will be sent by e-mail or SMS.	Only available in the recording modes alarm input, priority alarm if e-mail and/or SMS delivery is configured on the E-mail and SMS tab (see Section 19.1 Configuring e-mail notification or Section 19.2 Configuring SMS notification). The following variables can be used in the text: • %C = camera name • %X = date and time of the start of the event
Acoustic message	The acoustic signal selected is played when an event occurs.	Only available in the recording modes motion, alarm input and priority alarm
Alarm message	The text entered will be shown on the screen when an event occurs.	Only available in the recording modes motion, alarm input and priority alarm
Alarm output	When an event occurs, a signal will be sent via the selected alarm outputs.	Only available in the recording modes motion, alarm input, priority alarm and software trigger This function can be used to control additional devices.
Alarm input	When an assigned alarm input is triggered, the live image of the camera will be recorded even if the camera itself has detected no movement.	Only available in the recording modes alarm input and priority alarm
Enable alarm	Recording the live image of the selected camera can be linked to additional conditions here.	Only available in the recording modes motion, alarm input and priority alarm. 4 digital inputs of the SISTORE MX unit to which the enable alarm function has been assigned can be selected as a condition. See Section 11.1 Configuring digital input.
PTZ control	During an event the selected camera moves to the selected position.	Only available in the recording modes alarm input, priority alarm and software trigger. • if the selected camera is a PTZ camera. At least one position must be saved for the particular camera (see Section 7.8 Configuring automatic camera positioning for PTZ analog cameras and PTZ LAN cameras). Each alarm input can be assigned a position.

Tab. 5 Setting options on the Recording tab

17.3.2 Combination example for recording modes

You want to record the live image of a camera continuously at a frame rate of 10 ips. Additionally for Saturdays and Sundays, if a movement is detected the live image should be recorded during the movement and up to 1 minute thereafter at 20 ips. To do so, proceed as follows:

Prerequisite:

- Motion detection is enabled for at least one camera. See Section 9 Configuring motion detection.

1. Select the **Recording** tab.
2. Select a camera for which motion detection is enabled from the camera list.
3. Select the **Longtime recording** sub-tab.
4. Select all time segments in the time table. See Section 12.2.3 Configuring time control.
5. In the **Pretrigger/long-time recording** group field under **Frame**, select the value 10.0/s.
6. Select the **Motion** sub-tab.
7. Select all time segments for Saturday and Sunday.
8. In the **Pretrigger/long-time recording** group field under **Frame**, select the value 20.0/s.
9. In the **Post-trigger period** group field under **Duration: m** enter the value 1, and under **s** enter 0.
10. Click **Apply**.

→ Your settings will be saved. The time table will appear as follows:

	0:00	3:00	6:00	9:00	12:00	15:00	18:00	21:00	24:00
Monday									
Tuesday									
Wednesday									
Thursday									
Friday									
Saturday									
Sunday									
Holiday									

Fig. 144 Time table on the "Recording" tab

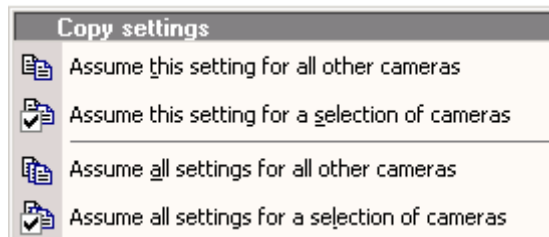
17.3.3 Transferring recording settings

In the **Copy settings** context menu, you can specify that a certain number of recording settings are transferred from a camera to one or more other cameras.

1. Select the **Recording** tab.
2. Right click on a configured camera in the camera list.



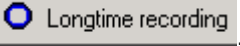
→ The following context menu will open:



You have four options:

Applying a setting to all other cameras

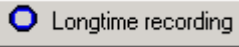
Prerequisite:

You are on the sub-tab for the setting which you want to apply to all other cameras, such as long-time recording .

1. Select **Assume this setting for all other cameras**.
→ The setting will be saved.

Applying a setting to a selection of cameras

Prerequisite:

You are on the sub-tab for the setting which you want to apply to a particular selection of cameras, such as long-time recording .

1. Select **Assume this setting for a selection of cameras**.
→ The following dialog box opens.

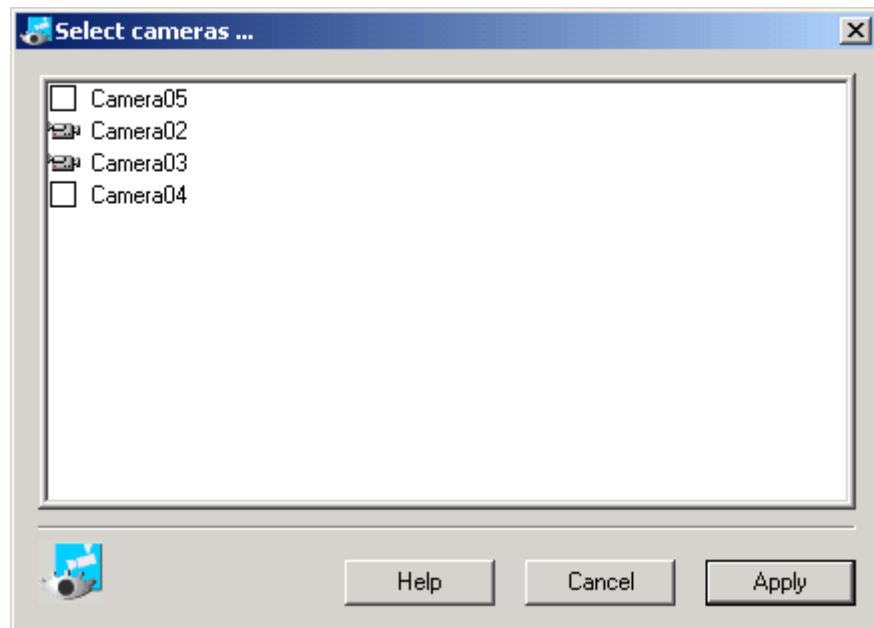


Fig. 145 "Select cameras" dialog on the "Recording" tab

2. Mark the checkboxes in front of the desired cameras ☐ Camera04 .
3. Click **Apply**.
 - The setting will be saved.

Applying all settings to all other cameras

1. Select **Assume all settings for all other cameras**.
 - Your settings will be saved.

Applying all settings to a selection of cameras

1. Select **Assume all settings for a selection of cameras**.
 - The **Select cameras** window will appear.
2. Mark the checkboxes in front of the desired cameras ☐ Camera04 .
3. Click **Apply**.
 - The setting will be saved.

17.4 Configuring the overwriting of recordings

If the hard disk capacity is exhausted and overwrite mode is not disabled (see below), the oldest data will be overwritten.

Deactivating overwrite mode

With the checkbox **Deactivate overwrite mode – stop recording** you can configure the SISTORE MX software to stop saving recordings as soon as the hard drive capacity is exhausted. This means that no recordings will be deleted on the hard drive to make room for further recordings.



IMPORTANT

If the hard drive capacity is exhausted, the message that **recording has stopped because no storage space is available** will appear on the screen and an entry will be made in the logbook. Furthermore, the **Error** LED will be lit. To switch off the indication manually, you must first make space available on the hard drive by deleting old recordings (see the user guide).



This option is not available if bank mode is enabled.

☐ Deactivate overwrite mode - stop recording

Fig. 146 "Deactivate overwrite mode - stop recording" checkbox

1. Select the **Database** tab.
2. Mark the checkbox **Deactivate overwrite mode - stop recording**.
3. Click **Apply**.
 - The setting will be saved.

Warning if overwriting relevant data

You can define how many days in advance you want to be notified before relevant data is overwritten. The selected time should be smaller than the remaining storage time of the hard disk as otherwise the warning will be sent immediately after a recording is started.

In order to extend the remaining recording time before overwriting begins you can either use a higher image compression or provide additional hard disk capacity.



If you delete a recording from this period manually, no warning message will be shown.

☒ Warning if overwriting relevant data within day(s)

Fig. 147 "Warning if overwriting relevant data" checkbox

1. Select the **Database** tab.
2. Mark the checkbox **Warning if overwriting relevant data within...**
3. Select how many days in advance you want to be notified before relevant data is overwritten in the **day(s)** list field.
4. Click **Apply**.
 - Your settings will be saved.

18 Configuring data storage

18.1 General information about the storage location

The SISTORE MX application software supports recording on separate hard drives and hard drive partitions.



IMPORTANT

- Ensure that there is sufficient storage space on the target drive.
- Do not use external USB hard drives, since this can lead to data loss.
- Do not use CD/DVD writers as "substitute" hard drives, since these are not supported by the SISTORE MX application software.

Drives enabled for recording

After activating the bank and cash dispenser operation (CDM mode), the drive **D:** is reserved for recording cash dispenser image files and is no longer available.

Use of network drives

All network drives for which the user has rights will be shown in the list of drives. As soon as a network drive is selected, the local drives serve only as replacement drives for if the network drive fails. If the network drive becomes available again after it has been unavailable, recording will take place again on the network drive after the next file change.

Network drives must generally be mapped, i.e. access to a network drive can only occur via a drive letter and not via a shared name. Ensure that the network drive is sufficiently fast and has enough bandwidth.

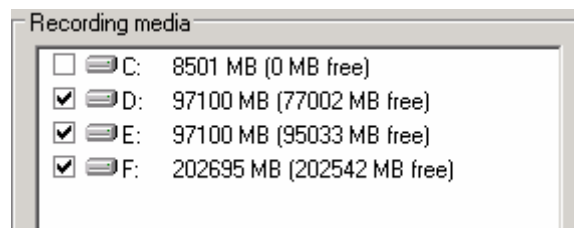


Fig. 148 Drive list in the "Recording media" group field

18.2 Selecting a storage location for recordings

In the **Recording media** group field, you can specify the drives on which the video data are to be saved.

1. Select the **System** tab.
2. In the **Recording media** group field, select the drives on which you want to save the video data.
3. Click **Apply**.
→ The setting will be saved.

Using maximum hard drive capacity

In order to ensure system stability, 15 % of the hard drive capacity is reserved for the operating system. By marking the checkbox **Use max. hard drive storage capacity** you can deactivate this limitation. However, this can lead to an unstable and unusable system. We recommend not setting this option.

☐ Use max. hard disk storage capacity

Fig. 149 "Use max. hard disk storage capacity" checkbox on the "System" tab

1. Select the **System** tab.
2. If you want maximum usage of the hard drive capacity: Mark the checkbox **Use max. hard disk storage capacity**.
3. Click **Apply**.
→ The setting will be saved.

18.3 Selecting a storage location for the database

In the **Database directory** group field, you can choose another directory if the database is to be stored somewhere other than in the SISTORE MX main directory.

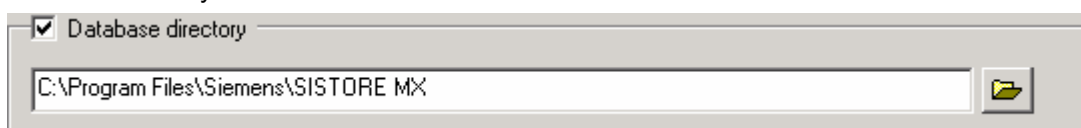
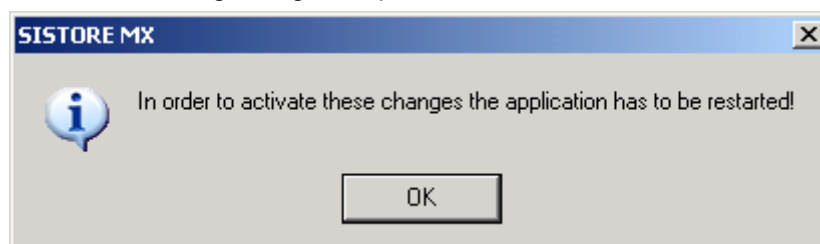


Fig. 150 "Database directory" group field on the "Database" tab

1. Select the **Database** tab.
2. Mark the checkbox **Database directory**.
→ The following dialog box opens.



3. Click **OK**.

4. Click the **Open** button .
 - The **Select directory** dialog will open.
5. Select the desired directory.
6. Click **Select**.
7. Click **OK**.
 - You will be in display mode.
8. Answer **Yes** in the confirmation dialog.
 - The SISTORE MX application software will close.



If you wait longer than 10 seconds, the SISTORE MX application software will close automatically.

9. Start the SISTORE MX application software.

18.4 Configuring automatic backup

18.4.1 Selecting a storage location for backup

In the **Backup** group field, you can specify the drives on which the backup will be saved. The SISTORE MX application software creates a new directory with each backup in which a copy of the database is saved. The directory will be named after the starting point of the backup:

YYYY-MM-DD-HH-MM-SS

YYYY	year
MM	month
DD	day
HH	hour
MM	minute
SS	second

A dedicated subdirectory will be created for each camera.



IMPORTANT

Ensure that there is sufficient storage space on the target drive. See Section 18.1 General information about the storage location.

In order not to affect the system performance too much the priority of the backup process is lower than the priority of other processes. With a higher priority, it would not be possible to record and play back at the same time. The backup process takes a long time due to its low priority. An incremental backup should be complete within 24 hours.

Backup directory 

1. Select the **Database** tab.
2. Mark the checkbox **Backup**.
3. Click the **Open** button .

- The **Select directory** dialog will open.
- 4. Select the desired directory.
- 5. Click **Select**.
- 6. Click **Apply**.
- The setting will be saved.

18.4.2 Removing write protection

You can configure that the write protection of recordings will be automatically removed after the backup is finished. More information on write protection can be found in Section 17.3 Configuring recording modes and in the SISTORE MX User Manual.

1. Select the **Database** tab.
2. Mark the checkbox **Remove overwrite protection**.
- The recordings can be overwritten or deleted after the backup is finished.

18.4.3 Clearing the backup directory

With the checkbox **Clear directory before**, you can specify that all subdirectories of the backup directory be deleted.



Fig. 151 "Clear directory before" checkbox on the "Database" tab

1. Select the **Database** tab.
2. Mark the checkbox **Backup**.
3. Mark the checkbox **Clear directory before**.
4. Click **Apply**.
- The setting will be saved.

18.4.4 Choosing the backup schedule

In order not to affect the system performance too much the priority of the backup process is lower than the priority of other processes. With a higher priority, it would not be possible to record and play back at the same time. The backup process takes a long time due to its low priority. An incremental backup should be complete within 24 hours.

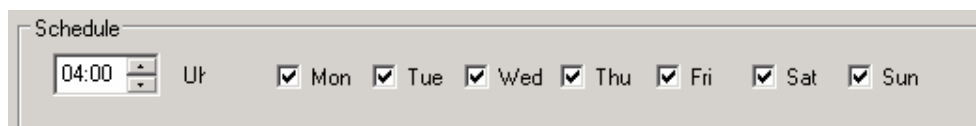


Fig. 152 "Schedule" group field on the "Database" tab

1. Select the **Database** tab.
2. Mark the checkbox **Backup**.
3. Select the time at which the backup is to take place in the **time** field.
4. Mark the checkboxes for the days on which the backup is to be performed.
5. Click **Apply**.
- The setting will be saved.

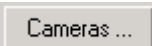
18.4.5 Selecting the type of recordings for backup

In the **Backup** group field, you can specify whether a complete backup or an incremental backup is to be performed.

Complete	All data will be saved. The backup can take a lot of time and require a lot of storage space.
Incremental	All data generated since the last backup are saved.

In order not to affect the system performance too much the priority of the backup process is lower than the priority of other processes. With a higher priority, it would not be possible to record and play back at the same time. The backup process takes a long time due to its low priority. An incremental backup should be complete within 24 hours.

Fig. 153 "Type" group field on the "Database" tab

1. Select the **Database** tab.
2. Mark the checkbox **Backup**.
3. If you want to save all the data select the option **Complete**  Complete.
 - The backup can take a lot of time and require a lot of storage space.
4. If you want to save all the data generated since the last backup, select the option **Incremental**  Incremental.
5. Mark the checkboxes of the recording types you want to save in the backup.
6. Click **Cameras...** .
 - The **Select cameras** window will appear.
7. Select the cameras the recordings of which you want to save in the backup.
8. Click **Apply**.
 - The settings will be saved.

19 Configuring alarm response

19.1 Configuring e-mail notification

19.1.1 Enabling e-mail notification

With the checkbox **Send e-mail** you can specify that an e-mail be sent if a warning or problem occurs.

An e-mail is sent in the case of the following problems:

Camera is missing / available again	Hard drive full, recording stopped
UPS reports power failure / power supply restored	Failure of a hard drive
Hard drive online again after failure	Relevant data overwritten
Recording could not be started	SISTORE MX not properly closed
Fatal recording error	



In case of a problem, only the main recipient will be notified.

Sending of these messages can take place via network/DSL or an installed modem/ISDN. For the network option an SMTP mail server must be available on the network.

1. Select the **E-mail and SMS** tab.
2. Mark the checkbox **Enable e-mail/SMS notification**
☒ Enable e-mail/SMS notification .
3. Select the **System** tab.
4. Mark the checkbox **Send E-mail** ☒ Send E-Mail .
5. Click **Apply**.
 → Your settings will be saved.

19.1.2 Setting notification via the SMTP server

1. Select the **E-mail and SMS** tab.
2. Enter the IP address or name of the outgoing mail server in the text field **Name or TCP/IP address**.

Name or TCP/IP address:

This is either

- the IP address of the mail server available on the network
 - OR –
- the IP address or name of an SMTP server of a service provider
 - OR –
- the IP address or name of an ESMTP server of a service provider



SMTP (Simple Mail Transfer Protocol) is a protocol that is mainly used to feed email messages into a network and transfer them.

ESMTP (Extended Simple Mail Transfer Protocol) is an advanced version of the SMTP protocol.

Example: 123.45.67.8 or mail.providername.com

The fields **User name** and **Password** must only be filled out if an ESMTP server is used.

3. Enter the user name for the ESMTP server in the **User name** text field.

User name:

4. Enter the password for the ESMTP server in the **Password** text field.

Password:

5. Enter the object name or SSTORE MX server name in the e-mail address format in the **Sender** text field.

Example: objectname@company.com

Sender

Sender:



If this information is not available, contact your network administrator or Internet service provider.

6. Click **Apply**.
 - The setting will be saved.

19.1.3 Configuring the connection to the SMTP server

In the **Connection to mail server** group field, you can determine whether the connection to the SMTP server takes place via a mail server on the local network or via a dial-in connection (RAS).



- RAS connections must be configured beforehand via the operating system.
- Please ensure that the RAS server service does not use the same ISDN device as SISTORE MX, because otherwise no connection to the SISTORE unit will take place.

1. Select the **E-mail and SMS** tab.

You have two options to specify the connection to the SMTP server:

2. Select the option **via local area network (LAN)**.

☒ via local area network (LAN)

– OR –

Select the option **via remote access service (RAS)**.



3. Select the desired connection from the dropdown list.
4. Click **RAS manager**.
 - The **Network connection** window will appear.
5. Select the desired connection
 - OR –
 - Add a new connection.
6. If you have added an RAS connection or renamed one: close the **Network connection** window and re-open it.
 - The newly added RAS connection will be shown.
7. Select this connection.



Give the RAS connection of an imported configuration and the RAS configurations of the original device the same names.

8. Click **Apply**.
 - The setting will be saved.

19.1.4 Entering e-mail recipient data



Mail receiver:

Fig. 154 Mail recipient text field on the E-mail and SMS tab

1. Select the **E-mail and SMS** tab.
2. Select the **Main receiver** sub-tab.
3. Enter a main recipient for e-mail in the **Mail receiver** text field in e-mail address format (mandatory).

Example: john.doe@security.com



- Multiple recipients can be entered in this text field. Separate the individual e-mail addresses with a semicolon. The field is limited to 256 characters.
- In case of a problem, only the main recipient will be notified.
- This person will receive all e-mail notifications at any time of day or night.

4. Click **Apply**.
→ The setting will be saved.

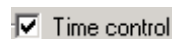
E-mail notification test

You can test whether a recipient receives an e-mail in case of a warning or problem.

1. Click **Test mail**.
→ A test e-mail will be sent to the selected recipient.
2. Check the e-mail inbox of the recipient.

19.1.5 Configuring time control

In the group field **Time control**, you can determine the period in which the second through fifth recipient receives an e-mail. The main recipient receives all e-mail notifications at any time of day or night.



1. Select the **E-mail and SMS** tab.
2. Select the **2nd receiver** sub-tab.
3. Mark the checkbox **Time control** in the **Time control** group field.
4. Click **Options**

→ The following dialog box opens.

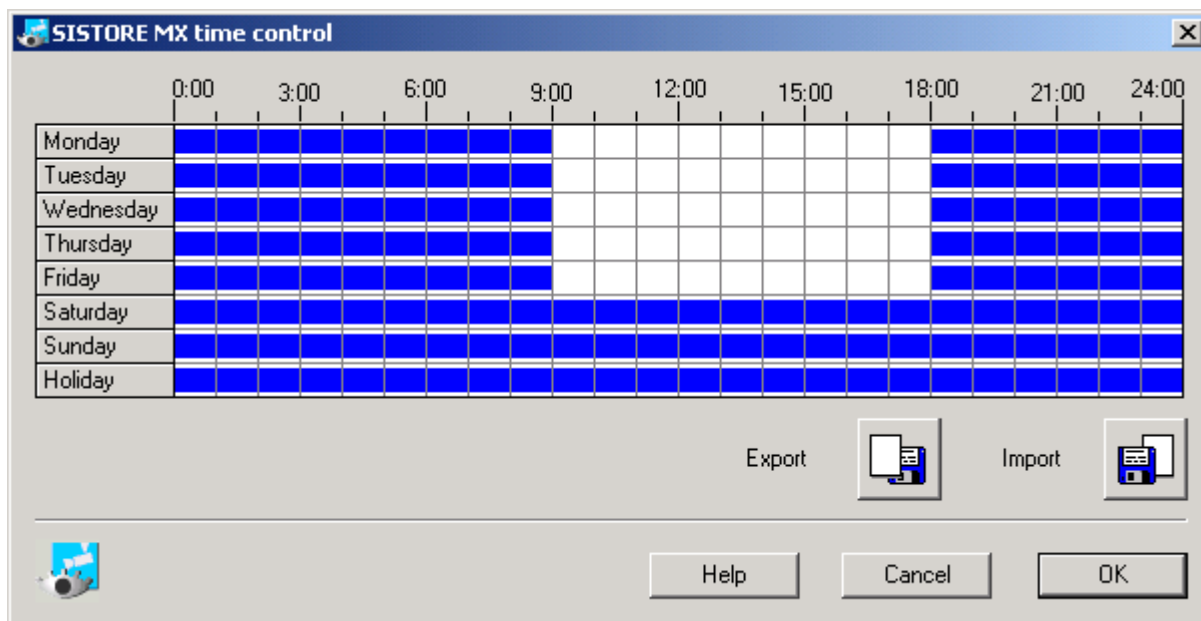


Fig. 155 "SISTORE MX time control" dialog

5. Set the desired time period (see Section 12.2.3 Configuring time control).
6. Click **OK**.
7. Repeat steps 2 and 6 as often as required if you want to configure time control for multiple recipients.
8. Click **Apply**.

→ The setting will be saved.

19.2 Configuring SMS notification

19.2.1 Enabling SMS notification

With the checkbox **Send SMS** you can specify that an SMS be sent if a warning or problem occurs.

An SMS is sent in the case of the following problems:

• Camera is missing / available again	• Failure of a hard drive
• UPS reports power failure / power supply restored	• Relevant data overwritten
• Hard drive online again after failure	• SISTORE MX not properly closed
• Recording could not be started	• Fatal recording error
• Hard drive full, recording stopped	



In case of a problem, only the main recipient will be notified.

1. Select the **E-mail and SMS** tab.
2. Mark the checkbox **Enable e-mail/SMS notification**
☒ Enable e-mail/SMS notification

3. Select the **System** tab.
4. Mark the checkbox **Send SMS** ☒ Send SMS.
5. Click **Apply**.
→ Your settings will be saved.

19.2.2 Entering SMS recipient data



Fig. 156 "SMS receiver" text field on the "E-mail and SMS"

1. Select the **E-mail and SMS** tab.
2. Select the **Main receiver** sub-tab.
3. In the text field **SMS receiver**, enter the telephone number with the network information as shown in the example.

Examples:

- D1 network: <telephone number>@t-d1-sms.de
- D2 network: <telephone number>@d2-message.de
- E network <telephone number>@smsmail.eplus.de
- E2: <telephone number>@o2online.de



SMS messages are sent to the mobile telephone via the e-mail function of the provider, thus it must be enabled to receive e-mail SMS messages. The receipt of such SMS messages generally incurs fees for the mobile telephone user.

4. Repeat steps 2 and 3 as often as required if you want to set up multiple recipients.



In case of a problem, only the main recipient will be notified.
He receives all SMS messages at any time of the day or night if the relevant mobile telephone is switched on.

5. Click **Apply**.
→ The setting will be saved.

Sending a test SMS

You can test whether the main recipient receives an SMS in case of a warning or problem.

1. Click **Test SMS**.
→ An SMS will be sent as a test.
2. Check whether the SMS arrives.

19.2.3 Configuring time control

In the group field **Time control**, you can determine the period in which the second through fifth recipient receives an SMS. The main recipient receives all SMS notifications at any time of day or night.



1. Select the **E-mail and SMS** tab.
2. Select the **2nd receiver** sub-tab.
3. Mark the checkbox in the **Time control** group field.
4. Click **Options ...**.
 - The **SISTORE MX time control** window will open.
5. Configure the time table. See Section 12.2.3 Configuring time control.
6. Click **OK**.
7. Repeat steps 2 and 6 as often as required if you want to configure time control for multiple recipients.
8. Click **Apply**.
 - The setting will be saved.

19.3 Configuring alarm notification

19.3.1 Configuring alarm notification over the network

You can configure alarm notification in case of **alarms** and **errors** over the network.

In case of alarm or error messages, a connection will be made to a SISTORE RemoteView client and the live image of the particular camera will be shown there.

Prerequisites:

- The SISTORE RemoteView application software has been started. See Section 26.2 Starting SISTORE RemoteView and logging in.
- The option **Allow alarm connection** is enabled in the SISTORE RemoteView application software. See Section 26.4.2 Configuring the network connection.

1. Select the **Alarm connection** tab.
2. Select the **main connection** sub-tab.
3. Select the option **Connect via LAN**.

 A screenshot of a configuration window titled 'Connect via LAN'. It has two input fields: 'IP address' with the value '127.0.0.1' and 'Port' with the value '41'. The 'Connect via LAN' option is selected with a radio button.

4. Enter the IP address in the **IP address** field.
5. Enter the port in the **Port** field.
6. Repeat steps 2 and 5 as often as required if you want to set up multiple connections. You can set up max. 1 main connection and 4 alternative connections.
 - You can now configure the alarm notification.

Notification in case of alarms

1. Select the **Recording** tab.
2. Select the **Alarm input** sub-tab.
3. Mark the checkbox **Alarm call** ☒ Alarm call.



In case of an event, the system attempts to call the main recipient via the main connection. If this does not succeed, a call to the second recipient is made via the first alternative connection, etc.

4. Click **Apply**.
→ Your settings will be saved.

Notification in case of errors

1. Select the **System** tab.
2. Mark the checkbox **Alarm call** in the **Warnings** ☒ Alarm call.



In case of an event, the system attempts to call the main recipient via the main connection. If this does not succeed, a call to the second recipient is made via the first alternative connection, etc.

3. Click **Apply**.
→ Your settings will be saved.

19.3.2 Configuring alarm notification over ISDN

You can configure alarm notification in case of **alarms** and **errors** over ISDN.

In case of alarm or error messages, a connection will be made to a SISTORE RemoteView client and the live image of the particular camera is shown there.

Prerequisites:

- An ISDN modem is connected to the SISTORE unit. A driver has been installed.
- The SISTORE RemoteView application software has been started. See Section 26.2 Starting SISTORE RemoteView and logging in.
- The option **Allow alarm connection** is enabled in the SISTORE RemoteView application software. See Section 26.4.2 Configuring the network connection.

1. Select the **Alarm connection** tab.
2. Select the **Main connection** sub-tab.
3. Select the option **Connect via ISDN**.

Connect via ISDN Phone number 07215950 ISDN channel bundling ☒

4. Mark the checkbox **ISDN channel bundling** if necessary.
5. Repeat steps 2 and 5 as often as required if you want to set up multiple connections. You can set up max. 1 main connection and 4 alternative connections.
→ You can now configure the alarm notification.

Notification in case of alarms

1. Select the **Recording** tab.
2. Select the **Alarm input** sub-tab.
3. Mark the checkbox **Alarm call** ☒ Alarm call.



In case of an event, the system attempts to call the main recipient via the main connection. If this does not succeed, a call to the second recipient is made via the first alternative connection, etc.

4. Click **Apply**.
→ Your settings will be saved.

Notification in case of errors

1. Select the **System** tab.
2. Mark the checkbox **Alarm call** ☒ Alarm call in the **Warnings** section.



In case of an event, the system attempts to call the main recipient via the main connection. If this does not succeed, a call to the second recipient is made via the first alternative connection, etc.

3. Click **Apply**.
→ Your settings will be saved.

19.3.3 Configuring time control

In the **Time control** group field, you can determine the period during which an alarm connection is to take place.

☒ Time control

Prerequisites:

- The SSTORE RemoteView application software has been started. See Section 26.2 Starting SSTORE RemoteView and logging in
- The option **Allow alarm connection** is enabled in the SSTORE RemoteView application software. See Section 26.4.2 Configuring the network connection.

1. Select the **Alarm connection** tab.
2. Select the **1. alternative connection** sub-tab.
3. Mark the checkbox in the **Time control** group field.
4. Click **Options ...**.
→ The **SSTORE MX time control** window will open.
5. Configure the time table. See Section 12.2.3 Configuring time control.
6. Click **OK**.
7. Repeat steps 2 and 6 as often as required if you want to configure time control for multiple alternative connections.
8. Click **Apply**.
→ The setting will be saved.

19.4 Configuring the FTP server

You can configure a connection to the FTP server on the **FTP** tab. In case of an alarm, the alarm message will be stored as an MSG file and an alarm image as a JPEG in the root directory on the FTP server. This procedure is based on a special German standard (EBÜS from Accelance). The root directory is in the **Users** directory. Usually a dedicated root directory is created for each user of the FTP server.

The alarm image and text file will be named after the starting point of the alarm:

YYYYMMDDHHMMSSxxx.jpg

YYYY	year
MM	month
DD	day
HH	hour
MM	minute
SS	second
xxx	milliseconds

In case of an alarm, a subdirectory will be created which is named after the camera for which the alarm occurred.



IMPORTANT

Ensure that there is sufficient storage space on the target drive. See Section 18.1 General information about the storage location.

Fig. 157 FTP server group field on the FTP

Configuring the FTP server

1. Select the **FTP** tab.
2. Mark the checkbox **FTP enabled**.
3. Enter the IP address of the FTP server in the **URL/IP** text field.



If this information is not available, contact your network administrator or Internet service provider.

4. Enter the port number of the FTP server in the **Port** text field. The port is usually 21.
5. If the SISTORE MX application software is operated behind a firewall, mark the checkbox **Passive FTP**.
6. Enter the user name for the FTP server in the **User name** text field.
7. Enter the password for the FTP server in the **Password** text field.
8. Enter the name of the directory in which all alarm images are to be saved in the text field **Root directory**.

If you have not entered a name in the text field **Root directory**, the alarm images will be saved directly in the "Users" directory.

Using the FTP server

You can use the FTP server in the **Recording** tab in the following recording modes (sub-tab of the **Recording** tab):

- Motion
- Alarm input
- Priority alarm
- Suspicion

1. Select the appropriate sub-tab on the **Recording** tab .
2. Mark the checkbox **FTP** ☒ **FTP** .
3. Click **Apply**.
 - The setting will be saved.

19.5 Testing alarm response

You can simulate an alarm in order to test the configured alarm response.



It is not necessary to stop the recording process.

Allow alarm simulation

1. Select the **System** tab.
2. Mark the checkbox **Allow alarm simulation**.
3. Click **OK**.
 - The setting will be saved.

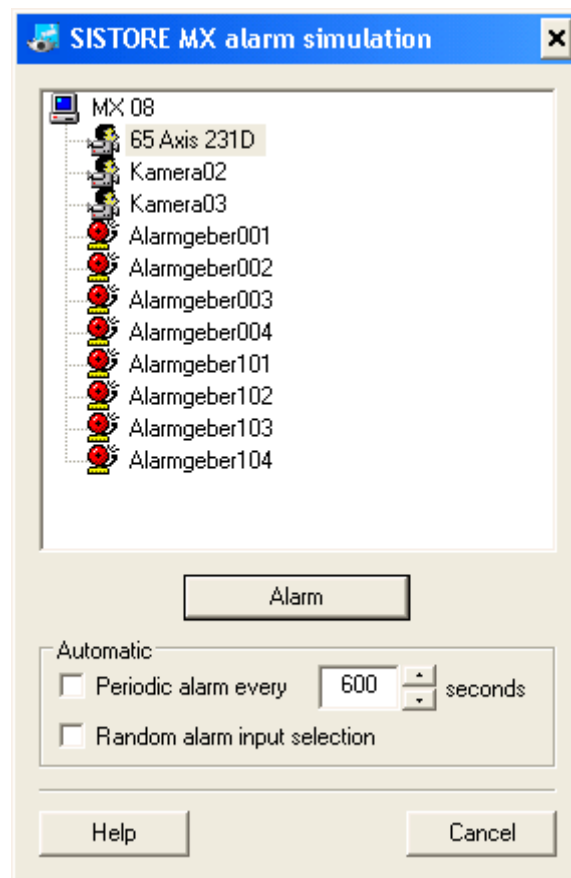
Simulate alarm

Prerequisites:

- Alarm simulation is allowed.
- At least one alarm input must have been configured. See Section 12 Configuring alarm inputs.
- OR –

At least one camera that has motion detection activated must have been configured as an alarm input. See Section 17.3 Configuring recording modes.

1. Select the menu sequence **Action > Simulate alarm ...**
→ The following dialog box opens.



2. To simulate a specific alarm select the desired alarm input or camera.
3. To simulate all alarms periodically one after the other, mark the checkbox **Periodic alarm every...** and enter the time interval in seconds.
4. If the alarm inputs for the periodic alarm simulation are to be selected randomly, also mark the checkbox **Random alarm input selection**.
5. Click on **Alarm**.
→ The alarms will be simulated.

20 Configuration of bank mode

20.1 Enabling bank mode



Cash register mode and bank mode are mutually exclusive. Only one of the two tabs is available at any time.



Fig. 158 Bank mode checkbox on the System tab

1. Select the **System** tab.
2. Mark the checkbox **Bank mode**.
→ The following dialog box opens.

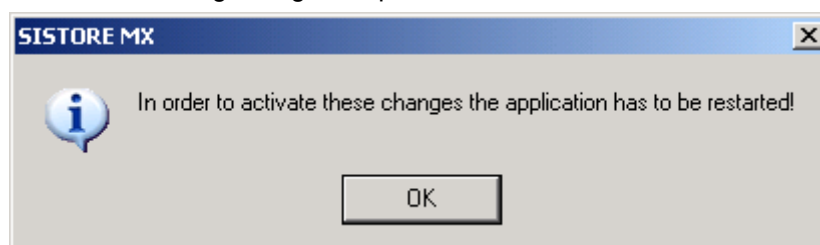


Fig. 159 SISTORE MX dialog

3. Click **OK**.
→ The SISTORE MX application software will close.
4. Start the SISTORE MX application software.
→ The **Banking** tab will be shown.

20.2 Configuring the number of recordings

In the **Cash box parameters** group field you can specify how many test, suspicion and holdup recordings are saved on SISTORE MX.

Suspicion and holdup recordings will be made if an alarm input with suspicion or holdup priority is assigned to a particular camera and sends an alarm to this camera. Suspicion and holdup recordings are recorded in the logbook so that it is possible to search selectively for these recordings at a later date.

Trial recordings are triggered manually by the user. Further information on this can be found in the SISTORE MX User Manual.



For suspicion and holdup recordings, the SISTORE MX application software creates an internal write protection that cannot be removed by the user. As soon as the set number of suspicion and holdup recordings is reached, the system enables the oldest recording of the particular type to be deleted. Afterward this recording is treated like an ordinary room recording and can be automatically overwritten by the system if necessary.

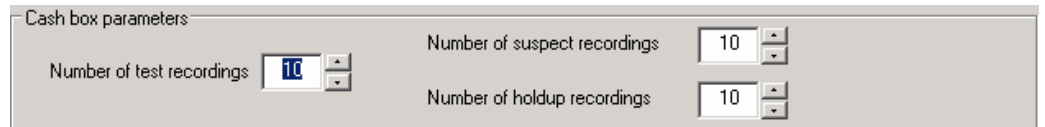


Fig. 160 Cash box parameters group field on the Banking tab

Prerequisite:

- The SISTORE MX application software is in bank mode. See Section 20.1 Enabling bank mode.

1. Select the **Banking** tab.
2. Enter a value in the **Number of test recordings** field.
3. Enter a value in the **Number of suspect recordings** field.
4. Enter a value in the **Number of holdup recordings** field.
5. Click **Apply**.
→ The settings have been saved.

20.3 Configuring forced logout

If one of two chip cards is removed from a card reader connected to SISTORE MX, the system will force a logout. In order to log in again, both chip cards must be inserted into the readers again.



If no delay has been configured, the logout will be forced the moment a chip card is removed from a reader.

If a delay has been configured, the logout will be forced after the set period of time.

Setting a delay time for forced logout

Prerequisites:

- 2 chip card readers are connected to SISTORE MX and recognized by the operating system.
- The SISTORE MX application software is in bank mode. See Section 20.1 Enabling bank mode.

1. Select the **Banking** tab.
2. Mark the checkbox **Forced logout** (see Fig. 161).
3. Set the time after which the logout is to be forced.
4. Click **Apply**.
→ The settings will be saved.

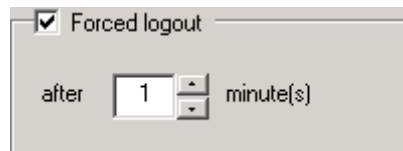


Fig. 161 Forced logout group field

21 Configuration of cash dispenser mode

21.1 Enabling cash dispenser mode



Cash register mode and bank mode are mutually exclusive. Only one of the two tabs is available at any time.

Prerequisites:

- Bank mode is enabled. See Section 20.1 Enabling bank mode.

1. Select the **System** tab.
2. Mark the checkbox **Cash dispenser**.
 - Confirm the message that follows with **OK**.
3. Click **OK** on the **System** tab.
 - The following dialog box opens.

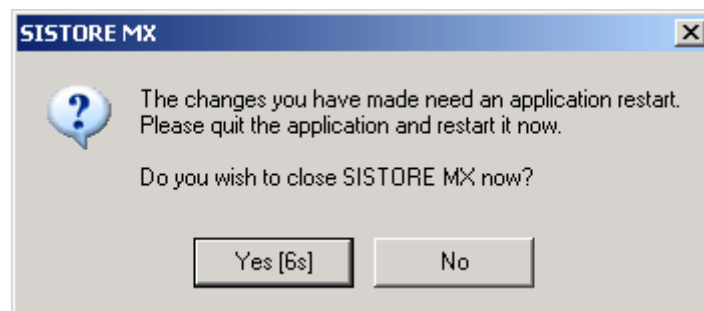


Fig. 162 SISTORE MX dialog box

- The SISTORE MX application software will close.



If you wait longer than 10 seconds, the SISTORE MX application software will close automatically.

4. Start the SISTORE MX application software.
 - The **Banking** tab will show the cash dispenser mode.

21.2 Configuring cash dispenser monitoring

21.2.1 Configuring dilBM_PBM type

1. Select the **Banking** tab.
2. Select the desired cash dispenser in the cash dispenser list.

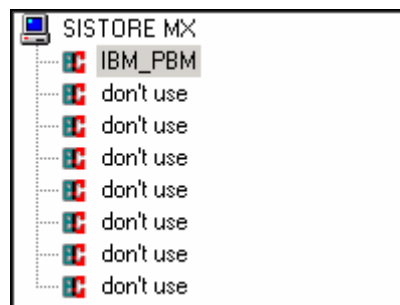


Fig. 163 Cash dispenser list on the Banking tab

3. Select the desired manufacturer or protocol from the **Type** dropdown list.

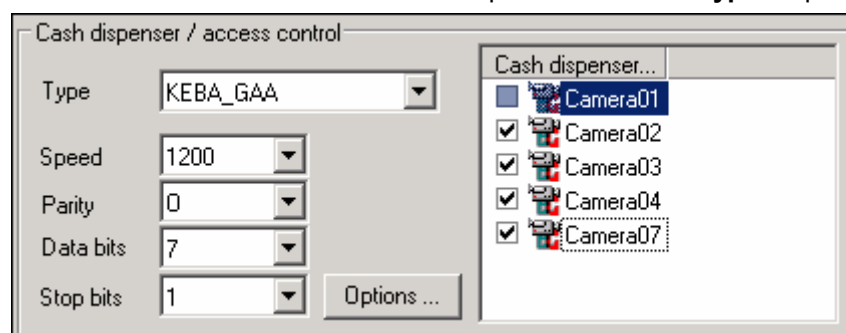


Fig. 164 Cash dispenser / access control group field on the Banking tab

The SISTORE MX application software supports up to 8 automated tellers of various manufacturers and protocols:

Cash dispenser	Type	Cross-reference
ASCOM	IBM_PBM type	
DIEBOLD	IBM_PBM type	
IBM	IBM_PBM type	
IBM_PBM	IBM_PBM type	
KEBA_GAA	IBM_PBM type	
KEBA_ZKS	SNI_DREBA type	Section 21.2.3: Configuring the SNI_DREBA type
NCR	NCR type	Section 21.2.2: Configuring the NCR type
SNI	NCR type	Section 21.2.2: Configuring the NCR type
SNI_DREBA	SNI_DREBA type	Section 21.2.3: Configuring the SNI_DREBA type
SNI_PBM	IBM_PBM type	

- The selected cash dispenser will be shown with the name of the manufacturer or the protocol in the cash dispenser list.
- The interface parameters **speed**, **parity**, **data bits** and **stop bits** are set automatically. Further information on this will be found in the cash dispenser documentation.



The combination **7 data bits** and **parity = none** is not supported.

4. Click **Options...**

- The following dialog box opens.

SISTORE MX cash dispenser options - IBM_PBM

Picture per step / Telegram: 3

Picture recording

First picture from step: 3

Second picture from step: 7

Third picture from step: 11

Time

☒ Timesynchronisation

Timeout: 180

Timestep: 7

Delay of picture recording / Seconds

Portrait: 0

Cash: 0

Room: 0

Picture to picture: 1

Picture recording / Camera sequence

Portrait 1: GA1_Port GA1_Port GA1_Port

Cash 1: GA1_Port GA1_Port GA1_Port

Room 1: GA1_Port GA1_Port GA1_Port

Cash dispenser specific

Telegram position

Date

Day: 12 To: 13

Month: 10 To: 11

Year: 14 To: 15

Time

Hour: 16 To: 17

Minute: 18 To: 19

Second: 20 To: 21

Fields

ID-No.: 85 To: 89

Bankcode: 42 To: 49

Account-Nr.: 29 To: 38

Amount: 56 To: 61

Currency: 0 To: 0

Status: 0 To: 0

Transactions-No.: 66 To: 69

Creditcard-No.: 29 To: 44

EC / Creditcard-distinction

Telegramposition:

Indication:

Difference Telegramlength:

Default

Help Cancel OK

Fig. 165 Settings of the IBM_PBM cash dispenser type

The following settings can be made in this window:



The IBM, IBM_PBM, SNI_PBM, DIEBOLD, KEBA_GAA and ASCOM cash dispenser types work according to the PBM (Personal Banking Machine) protocol from IBM. The settings options of these cash dispenser types can differ a little from the settings options of the PBM type.

Picture per step/Telegram

Indicate here how many images per step/telegram are to be recorded.

Picture recording

The image recording for the images 1, 2 and 3 (or for the image group if multiple images are recorded from one camera or various cameras for a telegram) will be initiated based on the step ID, i.e. the step ID determines whether and when an image or an image group is recorded. The setting for which steps are used is made here with three configurable steps:

- **First picture from step:** for the first image recording
- **Second picture from step:** for the second image recording
- **Third picture from step:** for the third image recording

If no step is specified for the third image or for the image group, image 3 will be recorded at a delay time (VZ_BILD_BILD) from image 2 which can be set in the configuration.



In order for the cash dispenser link to ensure secure operation, at least two fields (step 3 and 10 or 11) in the cash dispenser must be enabled!

The enabling takes place directly on the cash dispenser via the "CI". This involves the configuration file "Custom.dat".

Time

The following settings can be made in the Time group field:

- **Time synchronization:**

If multiple automated tellers are connected to a SISTORE MX system this specification can define which ones synchronize the SISTORE MX system.

We recommend enabling time synchronization only for one interface (one cash dispenser); if the cash dispensers have different times, this is urgently necessary.

- **Timeout:**

After a set timeout period an active transaction is automatically ended. This is necessary in order to close transactions properly for which the last specified step is missing, for example with an account balance query. The specification of the timeout is in seconds.

TIMEOUT=300

If a transaction is ended by a timeout, an archive entry with status=2 is made.

- **Timestep:**

The TIMESTEP parameter can determine which telegram is used for the synchronization. This is to achieve optimal agreement of the time between the SISTORE MX archive and the automated teller journal.

Delay of picture recording

The following fields can be used to define the delay times in seconds between the arrival of the telegram and the actual recording of the image:

- Portrait
- Cash
- Room
- Picture to picture

The **picture to picture** dropdown is enabled if a telegram is to result in multiple images being recorded by a camera or an image each from various cameras.

Picture recording / Camera sequence

Here you set the sequence of the cameras for image recording at the various telegram times.

Cash dispenser specific



Here there are default values which can be changed for the individual cash dispenser types.

- Date: day, month, year
- Time: hours, minutes, seconds
- Account number
- Bank code
- Amount
- Currency
- Status
- Transaction number
- Credit card number
- ID no. (workstation ID)

To determine the positions from the telegram, the log mechanism in the file **GAA.ini** in the [DEBUGINFO] section is to be activated.

Then the telegrams can be represented via the log file DTC_GAA.log.

EC / Credit card distinction

The telegrams of EC cards and credit cards differ, depending on cash dispensers or computing centres, by particular **characteristic** characters (such as blank spaces), which are at a particular position in the telegram and also differ sometimes in the length of the telegram. These characteristic characters are identifiable by their ASCII code.

- Enter the position of the characteristic character, such as 39, in the field "Telegram position".

Example	
39	Position for differentiating between EC and credit card

- Enter the ASCII code of the characteristic character in the field "Indication", such as the number "32" for a blank space. Example:

Example	
37	Character for differentiation as ASCII code //e.g. Chr(32) = " "

In exceptional cases, the telegram generated by a credit card is longer.

- Enter the difference in telegram length of the two card types in the corresponding field, for example 7.

Example	
7	// Difference in telegram length between EC and credit card, for example 7

With EC cards there is a blank space at position 39. Credit cards have no blank space at this position. A blank space has the ASCII code "32".

Telegram for an EC card:

059067661011603105510991707126550105 0009807579 7 10000 ON

1
↓

Telegram for a credit card:

0660676610116031059599920071591004D0411021285363 10000 ON

2
↓

3
←-----→

1	Blank space at position 39; the ASCII code for a blank space is 32
2	No blank spaces
3	The difference in telegram length between an EC card and a credit card is 7 characters

1. Click **OK**.

You have two options to assign cash dispenser cameras:

2. Mark the checkbox in front of the desired camera in the cash dispenser camera list.
– OR –
3. Right-click on the cash dispenser camera list.
→ The **SISTORE MX** context menu will open.
4. Mark **Select all**.
→ All cameras will be selected.



You can assign a maximum of 3 cash dispenser cameras to each cash dispenser.

5. In the **Stored for** field, select the number of days that are to be saved and not automatically overwritten.
6. In the **Number of transactions** field, select the number of transactions that are to be saved and not automatically overwritten.

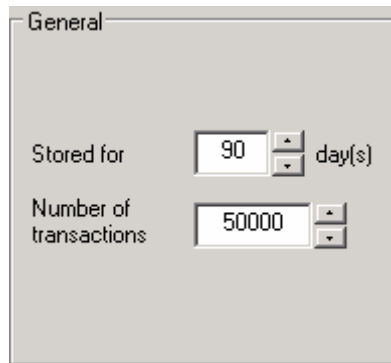


Fig. 166 Cash dispenser / access General group field on the Banking tab



Cash dispenser recordings will be deleted if the storage period or number of transactions is exceeded or if the recording capacity of the hard drive (D:\) is exhausted.

21.2.2 Configuring the NCR type

1. Select the **Banking** tab.
2. Select the desired cash dispenser in the cash dispenser list.

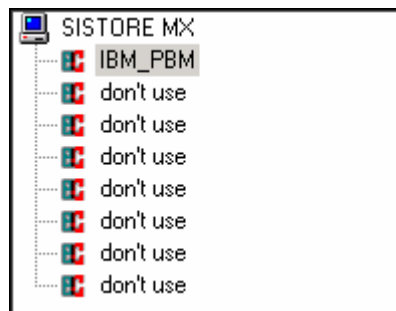


Fig. 167 Cash dispenser list on the Banking tab

3. Select the desired manufacturer or protocol from the **Type** dropdown list.

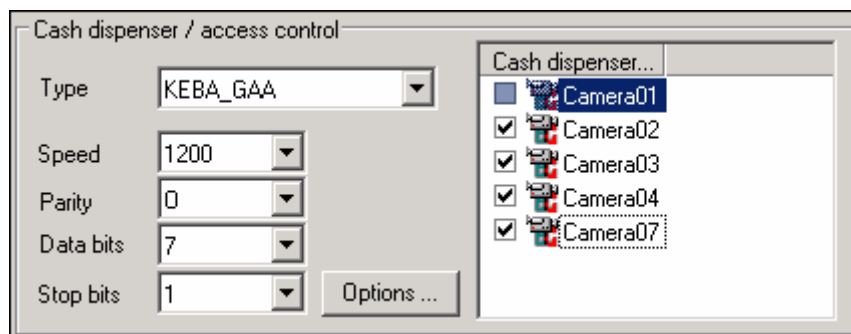


Fig. 168 Cash dispenser / access control group field on the Banking tab

The SISTORE MX application software supports up to 8 automated tellers of various manufacturers and protocols:

Cash dispenser	Type	Cross-reference
ASCOM	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type
DIEBOLD	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type
IBM	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type
IBM_PBM	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type
KEBA_GAA	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type
KEBA_ZKS	SNI_DREBA type	Section 21.2.3: Configuring the SNI_DREBA type
NCR	NCR type	Section 21.2.2: Configuring the NCR type
SNI	NCR type	Section 21.2.2: Configuring the NCR type
SNI_DREBA	SNI_DREBA type	Section 21.2.3: Configuring the SNI_DREBA type
SNI_PBM	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type

- The selected cash dispenser will be shown with the name of the manufacturer or the protocol in the cash dispenser list.
- The interface parameters **speed**, **parity**, **data bits** and **stop bits** are set automatically. Further information on this will be found in the cash dispenser documentation.



The combination 7 data bits and parity = none is not supported.

4. Click **Options....**

→ The following dialog box opens.

SISTORE MX cash dispenser options - NCR

Picture per step / Telegram: 1

Number of Telegrams: 3

Time:
☒ Timesynchronisation
 Timeout: 180

Delay of picture recording / Seconds:
 Portrait: 0
 Cash: 0
 Room: 0
 Picture to picture: 1

Picture recording / Camera sequence:
 Portrait 1: GA1_Port
 Cash 1: GA1_Port
 Room 1: GA1_Port

Help Cancel OK

Fig. 169 Settings of the NCR cash dispenser type

The following settings can be made in this window:



In contrast to the cash dispenser type SNI, for the NCR cash dispenser type only the field "Number" is shown in the group field **Number of telegrams**.

Picture per step/Telegram

Indicate here how many images per step/telegram are to be recorded.

Number of telegrams

Enter the number of telegrams sent by the cash dispenser here.

Time

The following settings can be made in the Time group field:

- **Time synchronization:**

If multiple automated tellers are connected to a SISTORE MX system this specification can define which ones synchronize the SISTORE MX system.

It is recommended to enable time synchronization only for one interface; if the cash dispensers have different times, this is urgently necessary.

- **Timeout:**

After a set timeout period an active transaction is automatically ended. This is necessary in order to close transactions properly for which the last specified step is missing, for example with an account balance query. The specification of the timeout is in seconds.

TIMEOUT=300

If a transaction is ended by a timeout, an archive entry with status=2 is made.

Delay of picture recording / seconds

The following fields can be used to define the delay times in seconds between the arrival of the telegram and the actual recording of the image:

- Portrait
- Cash
- Room
- Picture to picture

The **picture to picture** dropdown is enabled if a telegram is to result in multiple images being recorded by a camera or an image each from various cameras.

Picture recording / Camera sequence

Here you set the sequence of the cameras for image recording at the various telegram times.

1. Click **OK**.

You have two options to assign cash dispenser cameras:

- Mark the checkbox in front of the desired camera in the cash dispenser camera list.
 - OR –
 - Right-click on the cash dispenser camera list.
 - The **SISTORE MX** context menu will open.
2. Mark **Select all**.
 - All cameras will be selected.



You can assign a maximum of 4 cash dispenser cameras to each cash dispenser.

3. In the **Stored for** field, select the number of days that are to be saved and not automatically overwritten.
4. In the **Number of transactions** field, select the number of transactions that are to be saved and not automatically overwritten.

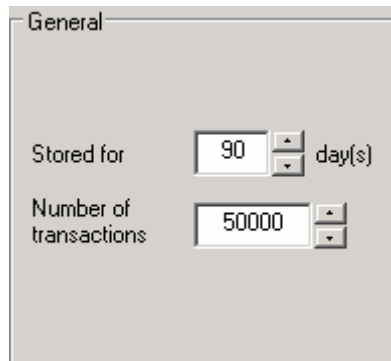


Fig. 170 Cash dispenser / access General group field on the Banking tab



Cash dispenser recordings will be deleted if the storage period or number of transactions is exceeded or if the recording capacity of the hard drive (D:\) is exhausted.

21.2.3 Configuring the SNI_DREBA type

1. Select the **Banking** tab.
2. Select the desired cash dispenser in the cash dispenser list.

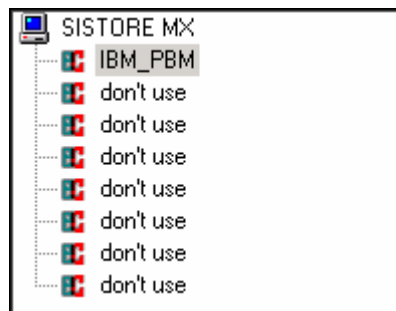


Fig. 171 Cash dispenser list on the Banking tab

3. Select the desired manufacturer or protocol from the **Type** dropdown list.

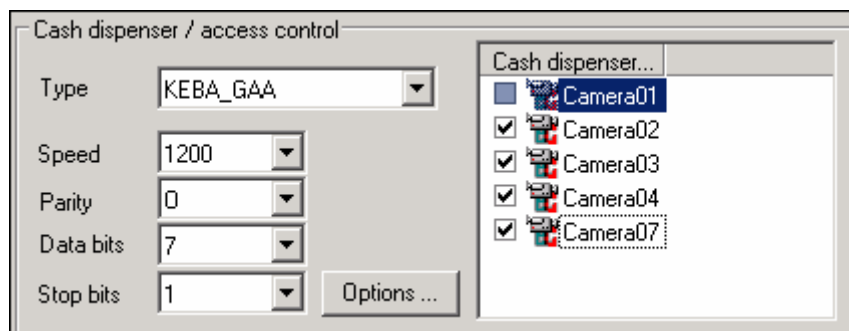


Fig. 172 Cash dispenser / access control group field on the Banking tab

The SISTORE MX application software supports up to 8 automated tellers of various manufacturers and protocols:

Cash dispenser	Type	Cross-reference
ASCOM	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type

Cash dispenser	Type	Cross-reference
DIEBOLD	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type
IBM	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type
IBM_PBM	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type
KEBA_GAA	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type
KEBA_ZKS	SNI_DREBA type	Section 21.2.3: Configuring the SNI_DREBA type
NCR	NCR type	Section 21.2.2: Configuring the NCR type
SNI	NCR type	Section 21.2.2: Configuring the NCR type
SNI_DREBA	SNI_DREBA type	Section 21.2.3: Configuring the SNI_DREBA type
SNI_PBM	IBM_PBM type	Section 21.2.1: Configuring diIBM_PBM type

- The selected cash dispenser will be shown with the name of the manufacturer or the protocol in the cash dispenser list.
- The interface parameters **speed**, **parity**, **data bits** and **stop bits** are set automatically. Further information on this will be found in the cash dispenser documentation.



The combination 7 data bits and parity = none is not supported.

4. Click **Options....**

→ The following dialog box opens.

SISTORE MX cash dispenser options - SNI_DREBA

Picture per step / Telegram: 3

Time
☒ Timesynchronisation
 Timeout: 180

Delay of picture recording / Seconds
 Picture to picture: 1

Picture recording / Camera sequence

Portrait 1	GA1_Port	GA1_Port	GA1_Port
Portrait 2	GA1_Port	GA1_Port	GA1_Port
Portrait 3	GA1_Port	GA1_Port	GA1_Port
Cash 1	GA1_Port	GA1_Port	GA1_Port
Cash 2	GA1_Port	GA1_Port	GA1_Port
Room 1	GA1_Port	GA1_Port	GA1_Port

Help Cancel OK

Fig. 173 Settings of the SNI_DREBA cash dispenser type

→ The following settings can be made in this window:



In contrast to the cash dispenser type SNI_DREBA, with the cash dispenser type KEBA_ZKS no settings can be made for Picture recording / Camera sequence.

Picture per step/Telegram

Indicate here how many images per step/telegram are to be recorded.

Time

The following settings can be made in the Time group field:

- **Time synchronization:**

If multiple automated tellers are connected to a SISTORE MX system this specification can define which ones synchronize the SISTORE MX system.

It is recommended to enable time synchronization only for one interface; if the cash dispensers have different times, this is urgently necessary.

- **Timeout:**

After a set timeout period an active transaction is automatically ended. This is necessary in order to close transactions properly for which the last specified step is missing, for example with an account balance query. The specification of the timeout is in seconds.

TIMEOUT=300

If a transaction is ended by a timeout, an archive entry with status=2 is made.

Delay of picture recording / seconds

The **picture to picture** field can be used to define the delay times in seconds between the arrival of the telegram and the actual recording of the image:

The **picture to picture** dropdown is enabled if a telegram is to result in multiple images being recorded by a camera or an image each from various cameras.

Picture recording / Camera sequence

Here you set the sequence of the cameras for image recording at the various telegram times.

1. Click **OK**.

→ The setting will be saved.

You have two options to assign cash dispenser cameras:

- Mark the checkbox in front of the desired camera in the cash dispenser camera list.

– OR –

- Right-click on the cash dispenser camera list.

→ The **SISTORE MX** context menu will open.

2. Mark **Select all**.

→ All cameras will be selected.



You can assign a maximum of 4 cash dispenser cameras to each cash dispenser.

3. In the **Stored for** field, select the number of days that are to be saved and not automatically overwritten.
4. In the **Number of transactions** field, select the number of transactions that are to be saved and not automatically overwritten.

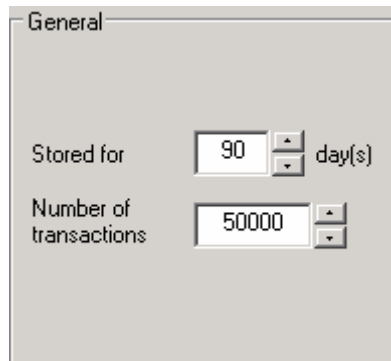


Fig. 174 Cash dispenser / access control General group field on the Banking tab



Cash dispenser recordings will be deleted if the storage period or number of transactions is exceeded or if the recording capacity of the hard drive (D:\) is exhausted.

21.3 Configuring access control

21.3.1 Adding and removing card readers

Prerequisites:

- At least one card reader is connected via an interface to a COM port of the SISTORE MX. See Section 5.12 Connecting the MX Multi-Channel Box RCI 0601 and an access reader (Kebin) and Section 5.13 Connecting (Miniter) interface and access reader.
- The options **Bank mode** and **Cash dispenser** are activated. See Section 20.1 Enabling bank mode and Section 21.1 Enabling bank mode.

Add a new card reader

1. Select the **Banking** tab.



2. Click the button in the **Access** group field.
→ A new card reader is added to the list (see below).

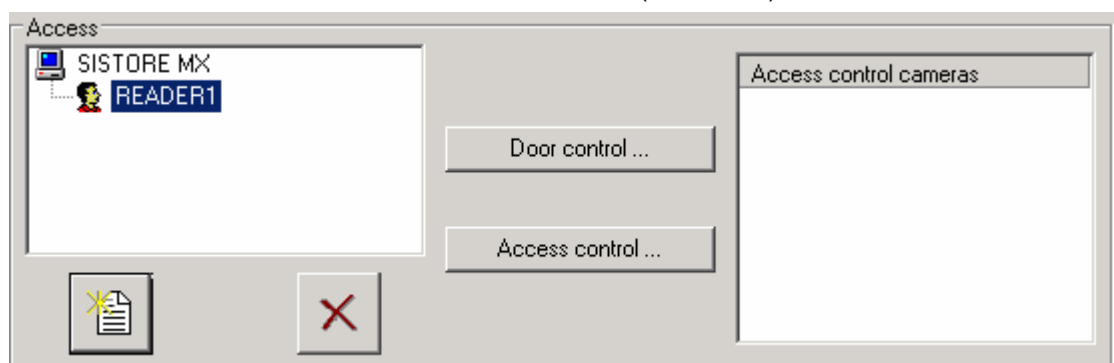


Fig. 175 "Access" group field in the "Banking" tab

Remove a card reader from the list

1. Select the **Banking** tab.
2. Select the card reader you wish to remove from the list.
3. Click the  button in the **Access** group field.
→ A confirmation dialog will be opened.
4. Click **Yes** in the confirmation dialog.
→ The card reader is removed from the list.

21.3.2 Configuring the door control function



The door control function has to be configured separately for each reader terminal.

The SISTORE MX door control distinguishes between 3 states:



opened (door opens even if no card is presented)



steered (door opens only if a valid card is presented)



closed (no access possible)

When changing from one state to another, please note the following:

from closed → to opened	possible
from closed → to steered	possible
from steered → to closed	possible
from steered → to opened	not possible / the state must be set to closed first and can then be set to opened
from opened → to closed	possible
from opened → to steered	not possible / the state must be set to closed first and can then be set to steered

Prerequisites:

- The options **Bank mode** and **Cash dispenser** are activated. See Section 20.1 Enabling bank mode and Section 21.1 Enabling cash dispenser mode.
- At least one card reader is in the list. See Section 21.3.1 Adding and removing card readers.

1. Select the **Banking** tab.
2. Select the desired card reader from the list.
3. Click **Door control...**
→ The following dialog box opens.

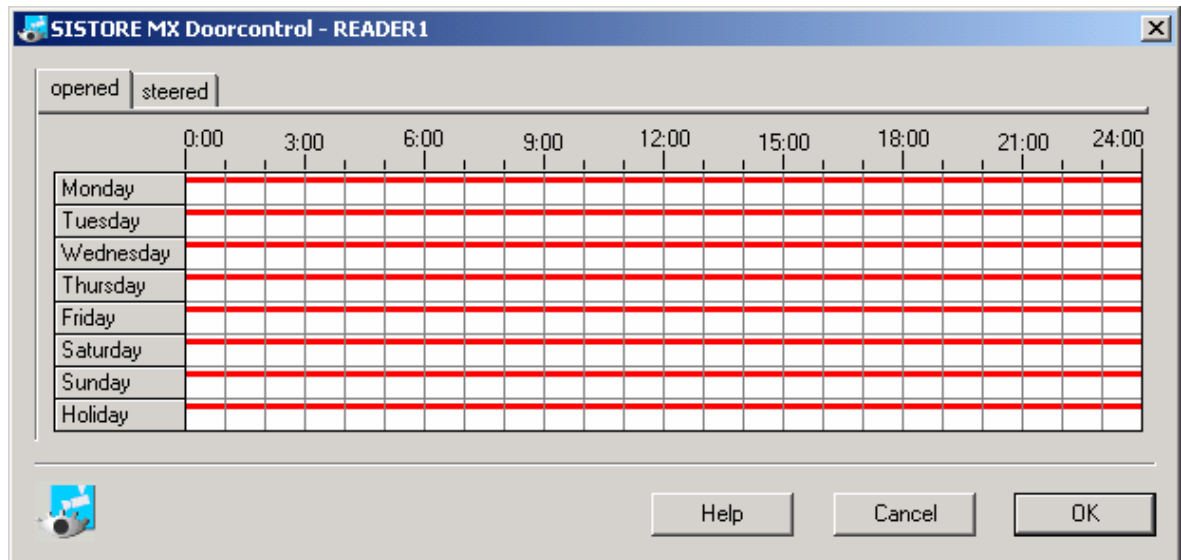


Fig. 176 SISTORE MX Door control dialog (unconfigured state)

4. Select the **opened** tab.
5. Select the desired times by pressing the left mouse button.
 - The selected time period is displayed in the timeline in the form of a green bar (see Fig. 177).
6. Select the **steered** tab.
7. Select the desired times by pressing the left mouse button.
 - The selected time period is displayed in the timeline in the form of a blue bar (see Fig. 177).



You cannot switch directly from **steered** to **opened** state (or vice versa). You have to select **closed** state first.

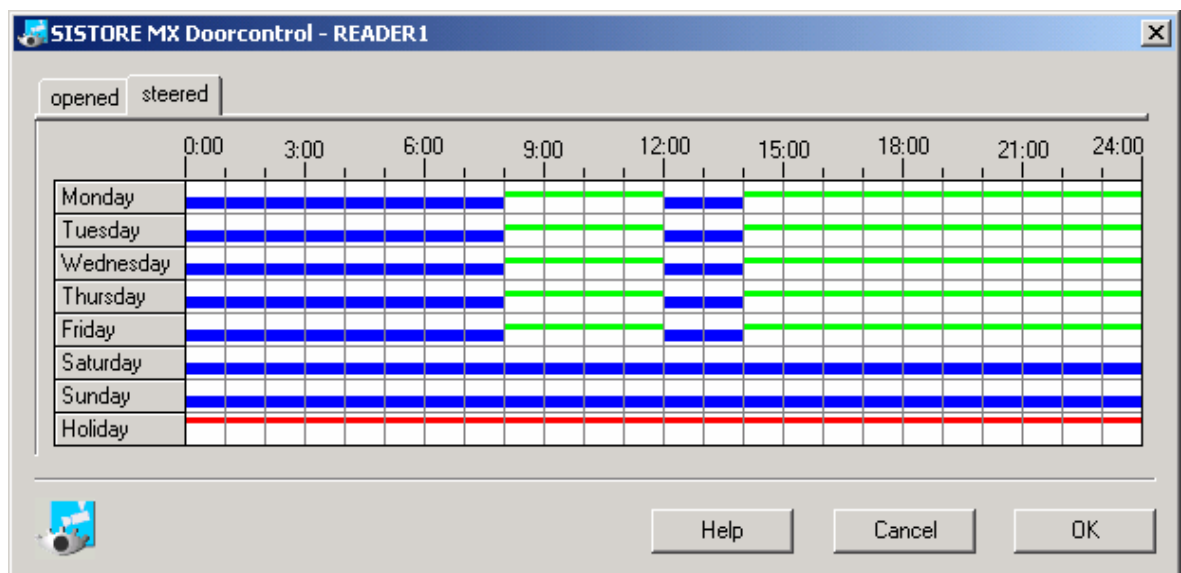


Fig. 177 "SISTORE MX Door control" dialog (configured)

8. Click **OK**.
9. Click **Apply**.
 - The settings will be saved.

21.3.3 Configuring a black list

By means of a black list, individual cards or groups of cards can be denied access.



The black list has to be configured separately for each reader terminal.

Prerequisites:

- The options **Bank mode** and **Cash dispenser** are activated. See Section 20.1 Enabling bank mode and Section 21.1 Enabling cash dispenser mode.
- At least one card reader is in the list. See Section 21.3.1 Adding and removing card readers.

Add a new entry to the black list

1. Select the **Banking** tab.
2. Select the desired card reader from the list.
3. Click on **Black list**.

→ The following dialog box opens.

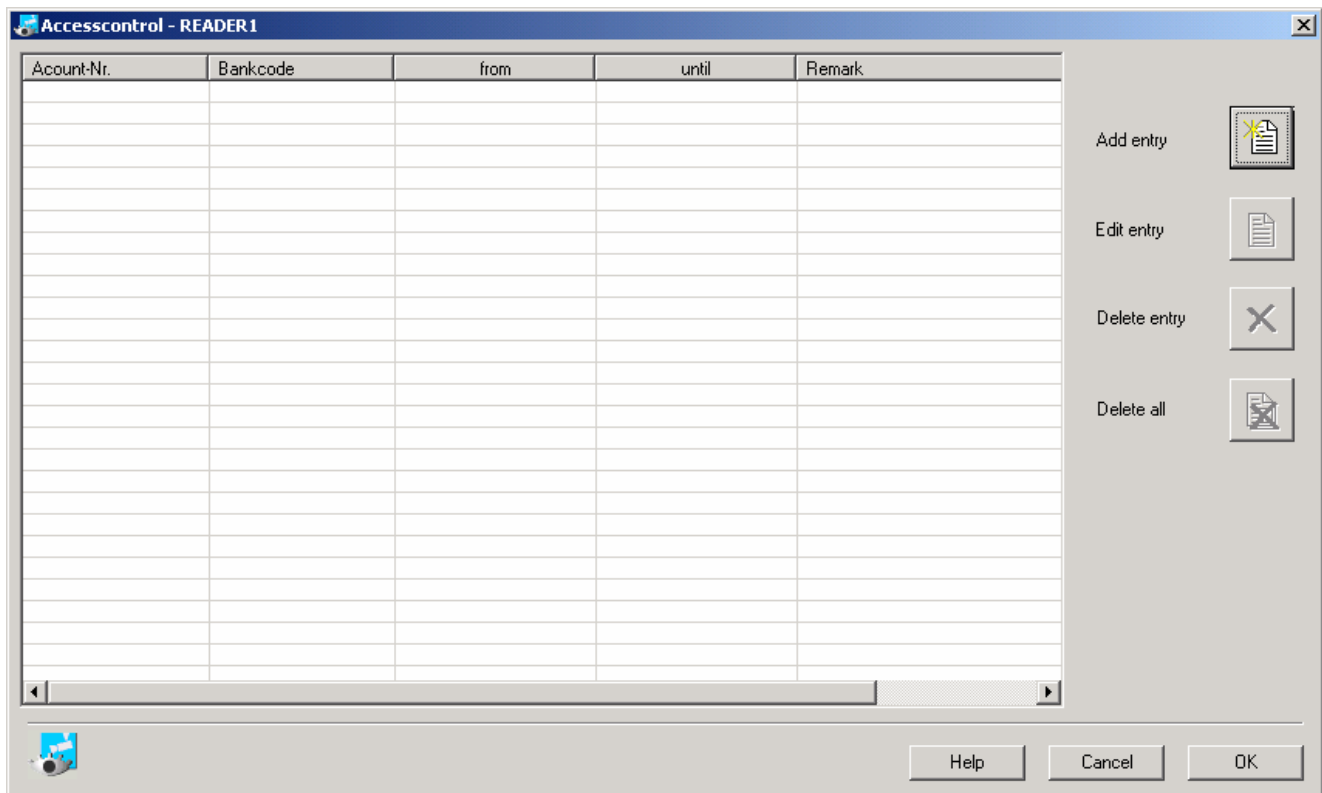
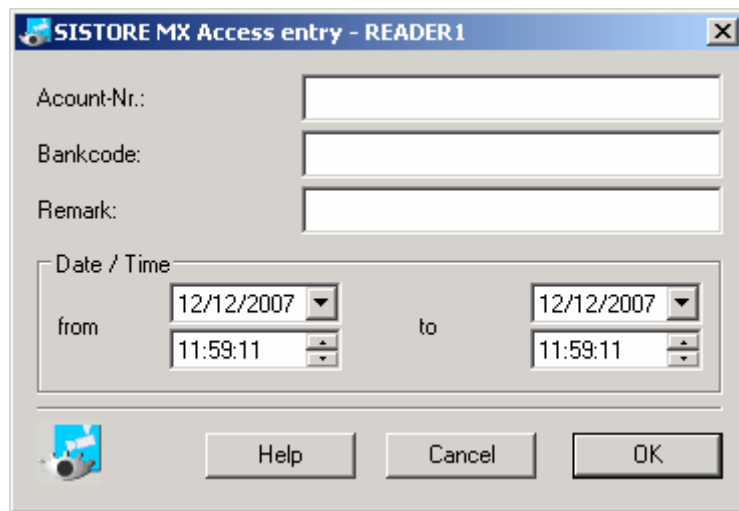


Fig. 178 Access control dialog

4. Click the **New entry** button .
- The following dialog box opens.



The dialog box titled "SISTORE MX Access entry - READER1" contains the following fields and controls:

- Account-Nr.:** A text input field.
- Bankcode:** A text input field.
- Remark:** A text input field.
- Date / Time:** A group box containing:
 - from:** Two spinners for date (12/12/2007) and time (11:59:11).
 - to:** Two spinners for date (12/12/2007) and time (11:59:11).
- Buttons:** Help, Cancel, and OK.

Fig. 179 SISTORE MX Access entry dialog

5. In order to inhibit a single card, enter the account number in the **Account-Nr** text field.
6. In order to inhibit all cards with a particular bank code, enter the appropriate bank code in the **Bankcode** text field.
7. Enter a comment on the current entry in the **Remark** text field.



Entries made in the **Date / Time** group field have no effect. A time limitation is currently not possible.

8. Click **OK**.
 - The entry has been added to the black list.
9. Click **OK** in the **Access control** dialog.
10. Click **Apply** in the **SISTORE MX Configuration** dialog.
 - The settings will be saved.

Edit black list entries

1. Select the **Banking** tab.
2. Select the desired card reader from the list.
3. Click on **Black list**.
 - The **Access control** dialog will open.
4. Select the black list entry you wish to edit.
5. Click the  **Edit entry** button.
 - The **SISTORE MX Access entry** dialog will open.
6. Edit the entries as desired.
7. Click **OK**.
 - The black list entry has been edited.
8. Click **OK** in the **Access control** dialog.
9. Click **Apply** in the **SISTORE MX Configuration** dialog.
 - The settings will be saved.

Delete a black list entry

1. Select the **Banking** tab.
2. Select the desired card reader from the list.
3. Click on **Black list**.
 - The **Access control** dialog will open.
4. Select the black list entry you wish to delete.
- 
5. Click the **Delete entry** button.
 - A confirmation dialog will be opened.
6. Click **Yes** in the confirmation dialog.
 - The black list entry has been edited.
7. Click **OK** in the **Access control** dialog.
8. Click **Apply** in the **SISTORE MX Configuration** dialog.
 - The settings will be saved.

Delete all black list entries

1. Select the **Banking** tab.
2. Select the desired card reader from the list.
3. Click on **Black list**.
 - The **Access control** dialog will open.
- 
4. Click the **Delete all entries** button.
 - A confirmation dialog will be opened.
5. Click **Yes** in the confirmation dialog.
 - All black list entries have been deleted.
6. Click **OK** in the **Access control** dialog.
7. Click **Apply** in the **SISTORE MX Configuration** dialog.
 - The settings will be saved.

22 Configuration of cash box mode

22.1 Adding a cash box

You can add up to 2 Sam4s cash boxes or 8 WINCOR cash boxes.



- Sam4s cash boxes are connected via the COM interface. WINCOR cash boxes are connected via the Multi-Channel Box.
- Cash box mode and bank mode are not possible at the same time.



Fig. 180 Cash box list on the Cash box tab

1. Select the **Cash box** tab.
2. To add a Sam4s cash box, click the left  icon **Add cash box**.
3. To add a WINCOR cash box, click the right  icon **Add Cap cash box**.
→ A cash box will be added to the cash box list.
4. Enter a name for the cash box in the **Name** text field.
5. Click **Apply**.
→ Your settings will be saved.

22.2 Deleting a cash box

1. Select the **Cash box** tab.
2. Select the cash box you want to delete from the cash box list.



3. Click the **Delete** button.
4. Answer **Yes** in the confirmation dialog.
5. Click **Apply**.
 - The setting will be saved.

22.3 Configuring cash box monitoring

1. Select the **Cash box** tab.
2. Select the desired cash box in the cash box list.
 - In the **Parameters** group field, the **type**, **interface** and the interface parameters **data rate**, data bits, **parity** and **stop bits** are set automatically. Further information on this will be found in the cash box documentation.

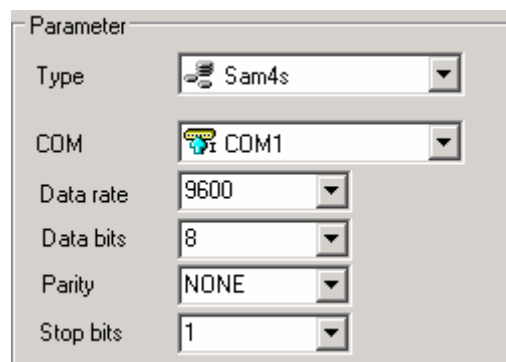


Fig. 181 Parameters group field on the Cash box tab



- You can assign only one camera to each cash box and multiple cash boxes to each camera.
- We recommend setting the frame rate of cash box cameras in the **Software trigger** recording mode to 2.0/s (pre-trigger/long-time recording) and 4.0/s (post-trigger period). See Section 17.3 Configuring recording modes.

3. Click **Apply**.
 - The setting will be saved.

22.4 Configuring filters

22.4.1 Creating a new filter

In the **Filter** group field you can specify that in the data stream (telegrams) sent by the cash box either uninteresting data are deleted or that an alarm is triggered when a filter word is received. All telegrams received are saved in the database.



- Filters must be set up individually for each cash box.
- Filters for WINCOR cash boxes are already set up. You can however change these filters and define new ones.



Fig. 182 Fields for defining the filter properties for Sam4s cash boxes

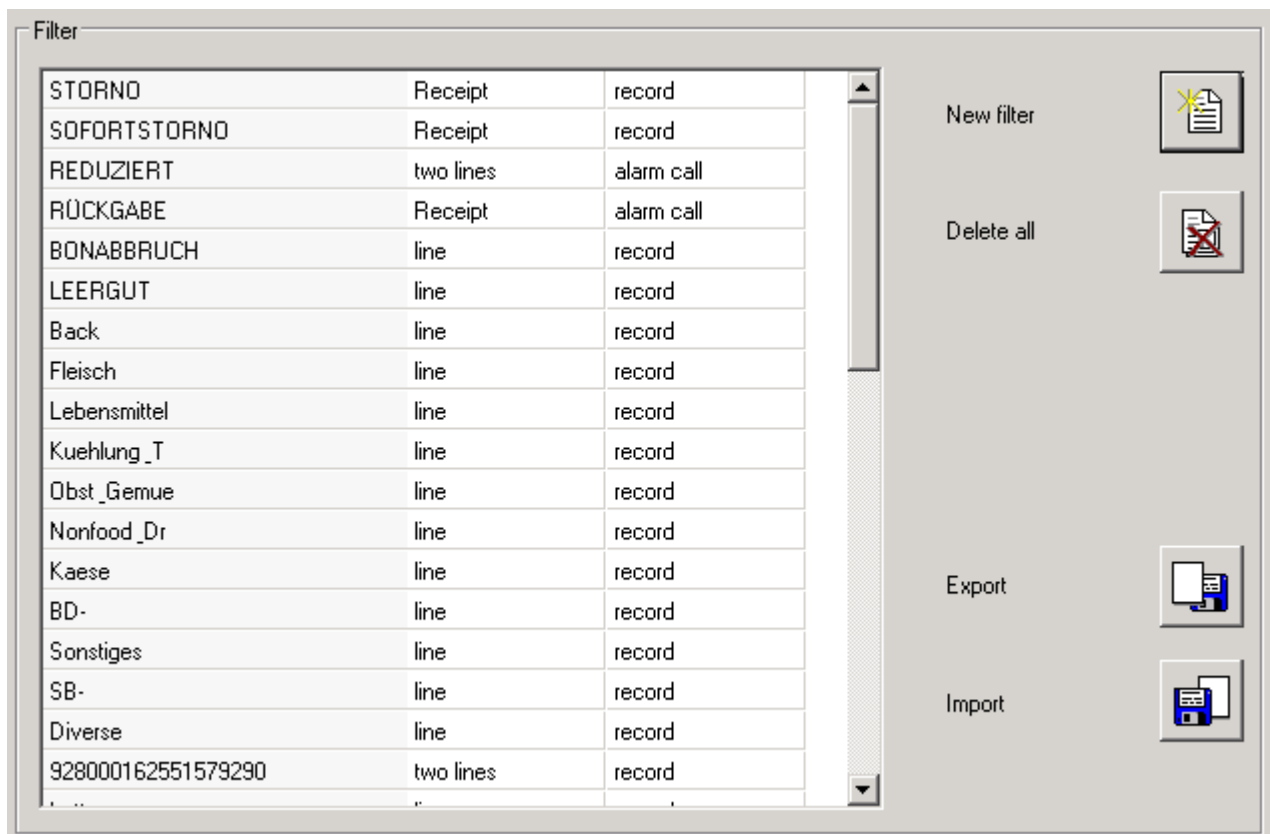


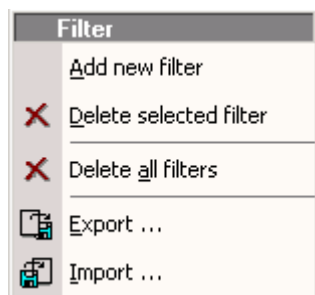
Fig. 183 Fields for defining the filter properties for WINCOR cash boxes

1. Select the **Cash box** tab.

2. Click the **New filter** .

– OR –

Right-click on the background and select **Add new filter** from the context menu.



- The fields for defining filters will be opened.
- 3. Click on the arrow next to one of the list boxes.
- 4. Select the desired filter option from the dropdown list.

Filter options for Sam4s cash boxes:

Inactive	No filter is used.
Word filter	If the filter word occurs as a substring of the received line, the word will be removed from the telegram.
Line filter	If the filter word occurs as a substring of the received line, the entire line will be removed from the telegram.
Alarm trigger	If the filter word occurs as a substring of the received line, an alarm will be triggered.
Receipt start	Defines the string a receipt begins with (e.g. "Welcome")
Receipt end	Defines the string that ends a receipt (e.g. "Goodbye")

Filter options for WINCOR cash boxes:

Line	If the filter word occurs as a substring of the received line, the line containing the filter word will be saved to the database.
Two lines	If the filter word occurs as a substring of the received line, the line containing the filter word and the subsequent line will be saved to the database.
Receipt	If the filter word occurs as a substring of the received line, the entire receipt will be saved to the database.
Inactive	No action is performed.
Record	If the filter word occurs as a substring of the received line, recording will be started.
Alarm call	If the filter word occurs as a substring of the received line, recording will be started and the alarm picture be displayed.

- 5. Enter the word to search for in the text field.
- 6. Click **Apply**.
- Your settings will be saved.

22.4.2 Importing filters

You can import saved filters with the **Import** button.

1. Select the **Cash box** tab.
2. Click the **Import** button .
 - The **Open** dialog will open.
3. Select the filters you want to import.
4. Click **Open**.
 - The filters will be imported.

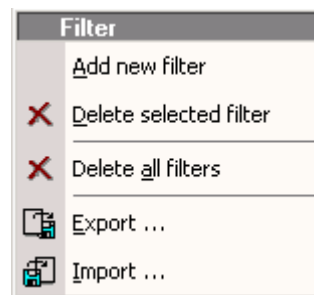
22.4.3 Deleting filters

Deleting a single filter

1. Select the **Cash box** tab.
2. Click in the text field of the filter you want to delete.

You have two options to delete a single filter:

1. Right-click on the background.
 - The following context menu will open:



2. Select **Delete selected filter**.
3. Answer **Yes** in the confirmation dialog.
 - The entry will be deleted.

– OR –

1. Click the **Delete** button  after the filter you want to delete.
2. Answer **Yes** in the confirmation dialog.
 - The entry will be deleted.

Deleting all filters

1. Select the **Cash box** tab.
2. You have two options to delete all entries:
3. Right-click on the background.
 - The **Filter** context menu will open.
4. Select **Delete all filters**.
5. Answer **Yes** in the confirmation dialog.
 - The filters will be deleted.

– OR –

1. Click the **Delete all** button .
2. Answer **Yes** in the confirmation dialog.
→ All the filters will be deleted.

22.4.4 Exporting filters

The **Export** button can be used to back up filters and transfer them to other systems.

Prerequisite:

- At least one filter has been configured. See Section 22.4 Configuring filters.

1. Select the **Cash box** tab.
 2. Click the **Export** button .
- The following dialog box opens.

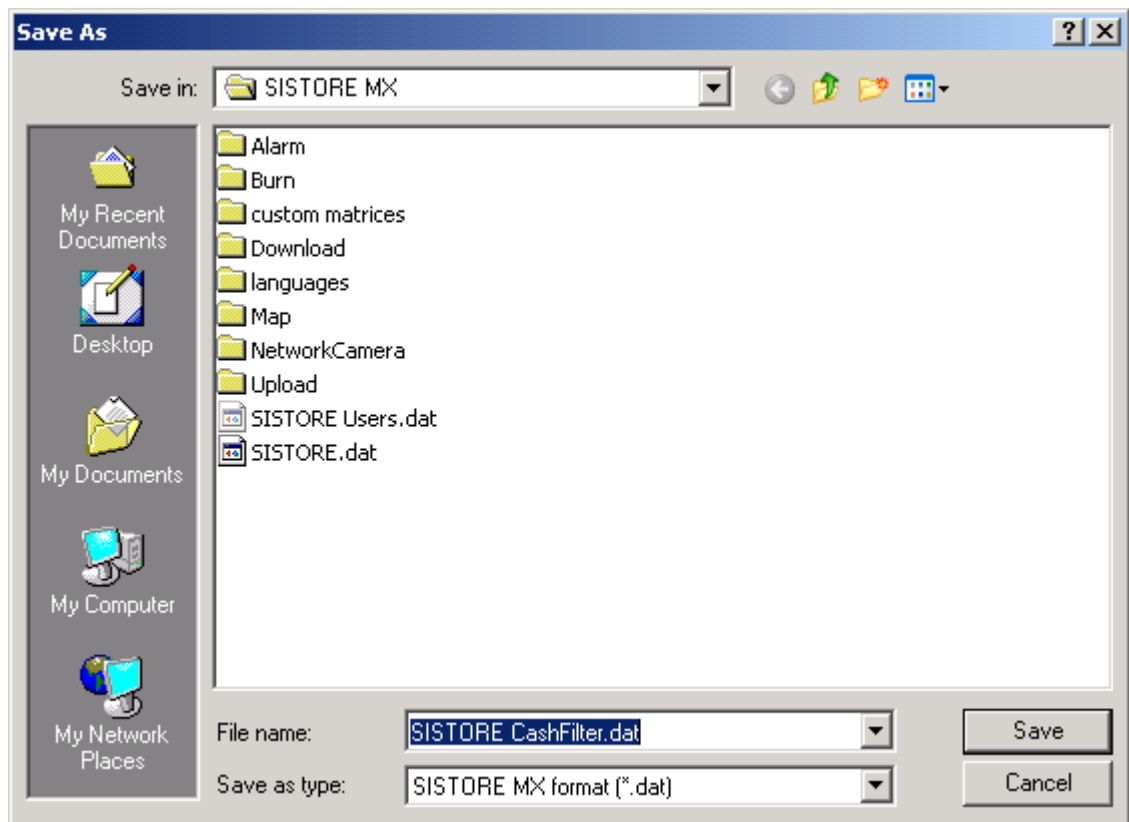


Fig. 184 "Save As..." dialog

3. Select the directory in which to save the filter configuration.
4. Enter a name in the **File name** field.
5. Click **Save**.
→ The filter configuration will be saved.

22.5 Displaying cash box data

1. Select the **Cash box** tab.
2. Select the desired cash box in the cash box list.
3. Click **Show data...**

→ The following dialog box opens.

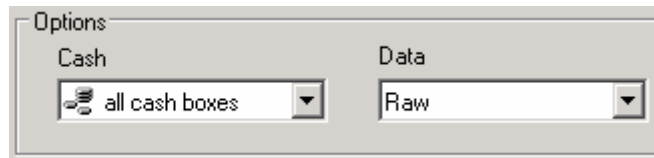


Fig. 185 Options group field in the SISTORE MX cash box data window

4. In the **Cash** dropdown list, select all cash boxes or select one cash box.
5. Select the desired option from the **Data** dropdown list.

Raw	All data will be shown.
Codepage	The data will be shown according to the codepage loaded.
Filtered	The filtered data will be shown.

→ The data will be shown.



Changes to the filter settings will be seen with the next data received.

23 Configuration of holidays

23.1 Adding a holiday

23.1.1 Creating a new holiday

For time control, in addition to the weekdays there is another category of day: the special day, such as holidays.

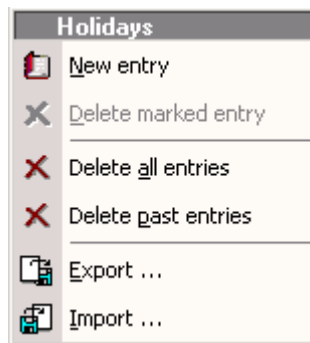
"Holidays" apply throughout the system and thus cannot be saved separately for an object.

1. Select the **Holidays** tab.

2. Click the **New entry** button .

– OR –

Right-click on the background and select **New entry** from the context menu.



→ Three fields for defining holidays will be opened.

12/12/2007	single	
------------	--------	---

3. Enter a name for the holiday in the text field.

You have two options to define a date for the holiday:

4. Enter the desired date in the text field.

– OR –

Click on the arrow next to the list field.

→ The calendar will open.

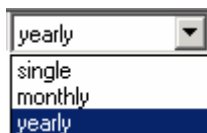
5. Select the desired day on the calendar.



For annual repetition enter the year as of which the repetition is to occur. For monthly repetition enter the month and year as of which the repetition is to occur.



6. Select "single", "monthly" or "yearly" from the selection field.



7. Click **Apply**.
 → The setting will be saved.

23.1.2 Importing holidays

You can import saved holidays with the **Import** button.

1. Select the **Holidays** tab.
2. Click the **Import** button .
 → The **Open** dialog will open.
3. Select the holidays you want to import.
4. Click **Open**.
 → The holidays will be imported.

23.2 Deleting a holiday

Deleting marked entries

1. Select the **Holidays** tab.
2. Click on the text field of the entry to be deleted.

You have two options to delete a marked entry:

3. Right-click on the background.
→ The following context menu will open:

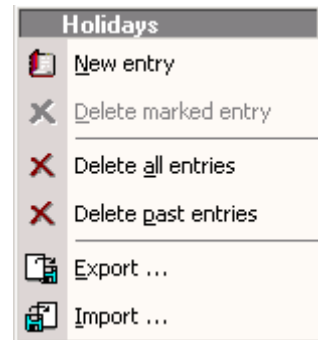


Fig. 186 Holidays context menu

4. Select **Delete marked entry**.
5. Answer **Yes** in the confirmation dialog.
→ The entry will be deleted.
- OR –
6. Click the **Delete** button  after the entry you want to delete.
7. Answer **Yes** in the confirmation dialog.
→ The entry will be deleted.

Delete all entries

1. Select the **Holidays** tab.
- You have two options to delete all entries:
2. Right-click on the background.
→ The context menu will open.
 3. Select **Delete all entries**.
 4. Answer **Yes** in the confirmation dialog.
→ The entries will be deleted.
 - OR –
 5. Click the **Delete all** button .
 6. Answer **Yes** in the confirmation dialog.
→ All entries will be deleted.

Deleting past entries

1. Select the **Holidays** tab.

You have two options to delete past entries:

2. Right-click on the background.
 - The context menu will open.
3. Select **Delete past entries**.
4. Answer **Yes** in the confirmation dialog.
 - The entries will be deleted.

– OR –

5. Click the  **Delete old** button.
6. Answer **Yes** in the confirmation dialog.
 - The entries will be deleted.

23.3 Exporting holidays

The **Export** button can be used to back up holidays and transfer them to other systems.

Prerequisite:

- At least one holiday has been configured. See Section 23.1 Adding a holiday.

1. Select the **System** tab.
2. Click the **Export** .
 - The **Save As...** dialog will open.
3. Select the directory in which to save the holiday configuration.
4. Enter a name in the **File name** field.
5. Click **Save**.
 - The holiday configuration will be saved.

24 Configuration management

24.1 Resetting the configuration

You can reset the configuration to the default settings using the **Reset configuration** button. The settings you have made in the **User management** tab will be maintained.

1. Select the **Information** tab.
2. Click **Reset configuration**.
3. Answer **Yes** in the confirmation dialog.
 - The settings made in the **System** tab will be reset; the user configurations and system settings remain unchanged.

24.2 Importing a configuration

You can import saved configuration files with the **Import configuration** button.



- If the SISTORE unit has already been configured, this configuration will be replaced.
 - Camera-specific rights can only be imported with the system configuration. When user configurations are imported, the users have all camera rights. The user administrator must check the assignment of rights individually.
-

1. Select the **Information** tab.
2. Click the **Import configuration**  **Import user configuration** 
3. Answer **Yes** in the confirmation dialog.
 - The **Open** dialog will open.
4. Select the configuration file you want to import.
5. Click **Open**.
 - The configuration file will be imported.



Following the import, check the drives enabled for recording in the **System** tab and all backup settings in the **Database** tab. See Section 18 Configuring data storage. If the operating mode of the system was changed, delete all old recordings or create a new database (see User Manual).

24.3 Exporting the configuration



When exporting the configuration, not all of the settings are backed up. Some of the settings, e.g. the language, cash dispenser or banking settings, will be lost during the export.

To duplicate a system please proceed as described in Section 24.4 Duplicating the system.

The **Export configuration** button can be used to back up the system and user configuration and transfer them to other systems.

1. Select the **Information** tab.



2. Click the **Export configuration** button

→ The following dialog box opens.

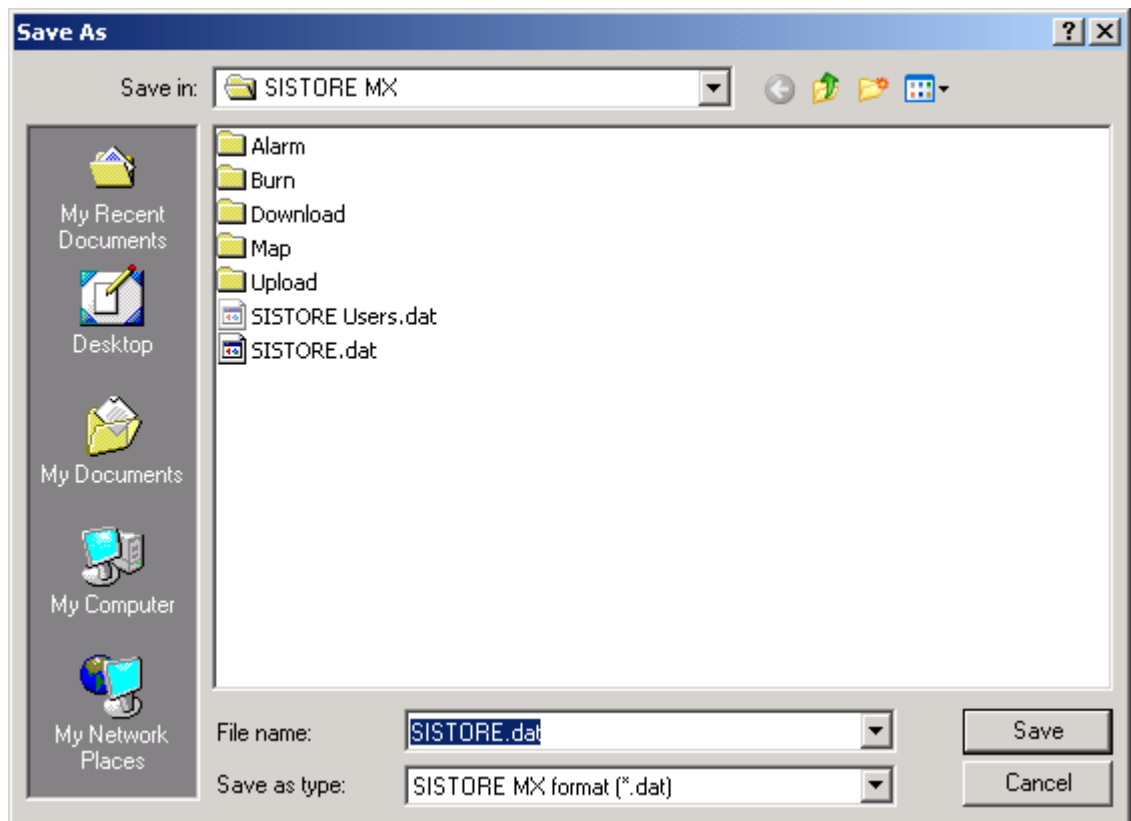


Fig. 187 Save As dialog

3. Select the directory in which to save the configuration.
4. Enter a name in the **File name** field.
5. Click **Save**.
→ The configuration will be saved.

24.4 Duplicating the system

You can create a complete duplicate of your SISTORE MX setup by manually copying the configuration files from a source to a target system.

Prerequisites:

- The SISTORE unit (source system) has been started.
- An external storage medium (e.g. USB stick) is connected to the SISTORE unit (source system).

1. Close the application software on the SISTORE MX source system.
2. In the source system, navigate to the directory "c:\program files\siemens\sistore mx".
3. Copy the following configuration files from the directory to an external storage medium (e.g. USB stick):
 - SISTORE.dat
 - SISTORE.bak
 - SISTORE.map
 - *.ini (all .ini files in the directory)
4. Start the target system.
5. Close the application software on the SISTORE MX target system.
6. In the target system, navigate to the directory "c:\program files\siemens\sistore mx".
7. Copy the configuration files from the external storage medium into this directory.
 - The **Confirm File Replace** dialog opens.
8. Click **Yes to All** in the **Confirm File Replace** dialog.
 - The system is duplicated.

24.5 Printing the configuration

The **Print configuration** enables you to print out the configuration in formatted text form without graphics. First define what is to be printed.

Prerequisite:

- At least one printer is installed on your computer.

1. Select the **Information** tab.

2. Click the **Print configuration** button .

→ The following dialog box opens.

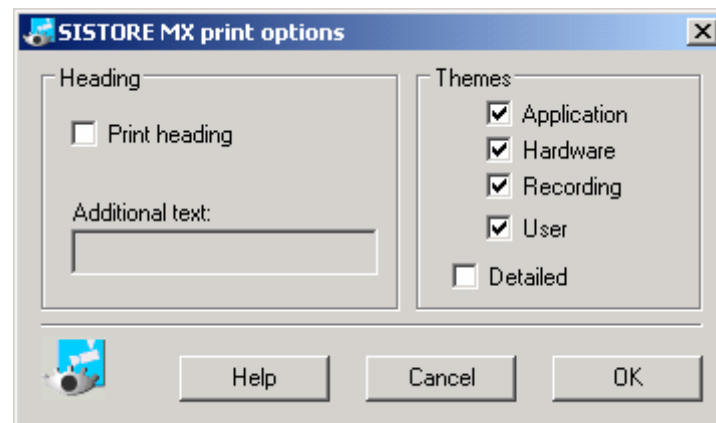


Fig. 188 SISTORE MX print options dialog

3. Mark the checkbox **Print heading**.



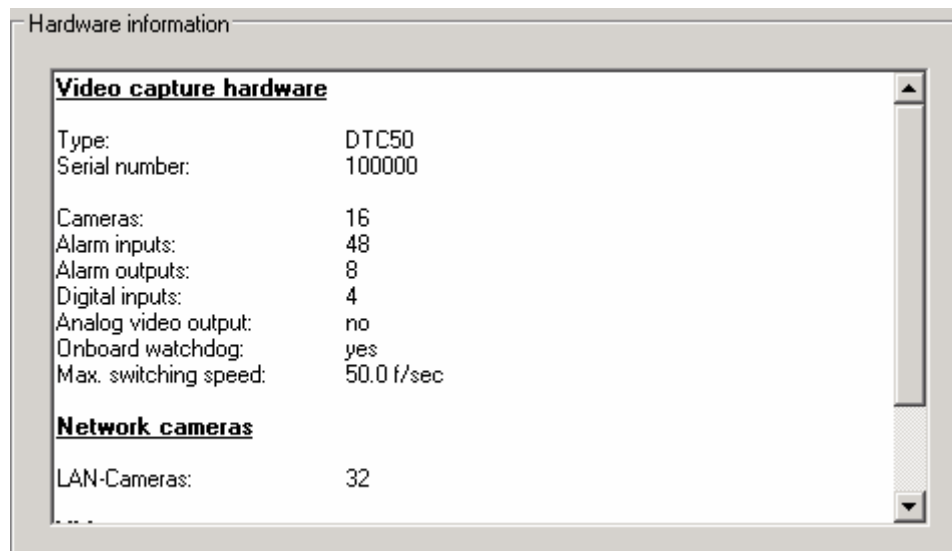
You can enter any text in the **Additional text** field. This will be shown on the title page and may not be longer than 64 characters.

4. Mark the information categories you want to print in the **Themes** group field.
5. Mark the checkbox **Detailed**.
6. Click **OK**.

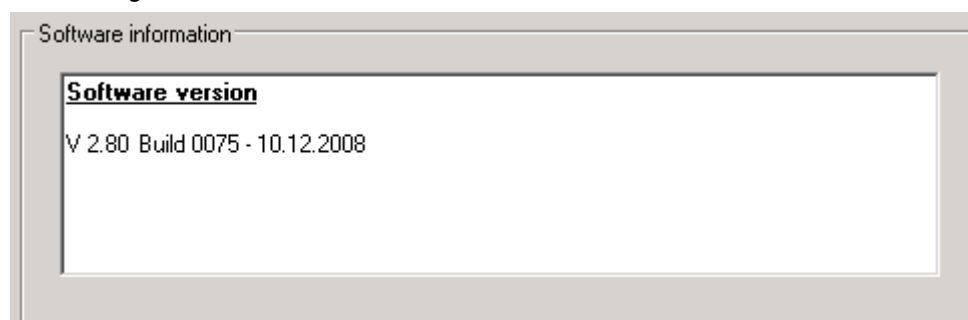
24.6 Showing the configuration and system data overview

1. Select the **Information** tab.

→ The Hardware information field lists the technical data for the video recording hardware installed.



→ The **Software information** field shows the version information. This information is also saved in the configuration file. Thus SISTORE RemoteView can also show with which software version (server) the configuration was saved.



24.7 Importing user configurations

You can import user configurations from a user configuration file using the **Import user configuration** button.

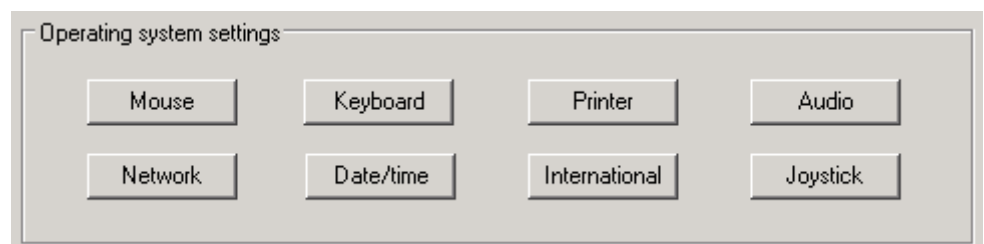


- If the SISTORE unit has already been configured, this configuration will be replaced.
- Camera-specific rights can only be imported with the system configuration. When user configurations are imported, the users have all camera rights. The user administrator must check the assignment of rights individually.

1. Select the **Information** tab.
2. Click **Import user configuration**.
3. Answer **Yes** in the confirmation dialog.
→ The **Open** dialog will open.
4. Select the configuration file you want to import.
5. Click **Open**.
→ The user configuration will be imported.

24.8 Opening operating system settings

You can access the operating system settings from the SISTORE MX application software using the following buttons.



1. Select the **Information** tab.
2. Click the appropriate button.
→ The operating system settings will be opened.

25 Testing the Watchdog

The Watchdog restarts the system in case of certain events, such as a server crash.

Function

A hardware Watchdog is integrated in the DVR system. In principle, this watchdog is a timer which closes a relay contact after a specified time. In normal operation, the timer is continuously restarted by the SISTORE unit so that it never runs out. If the system gets into a state in which it no longer reacts and can no longer reinitialize the watchdog, the timer runs out, the relay contact is closed and a restart is triggered via the reset line of the system.

Watchdog test

1. Select the **Watchdog** tab.
2. Click **Test**.
 - The **SISTORE MX** dialog will open.



If you want to avoid a reset of the system, pull the reset wire from the main board of the SISTORE MX unit.

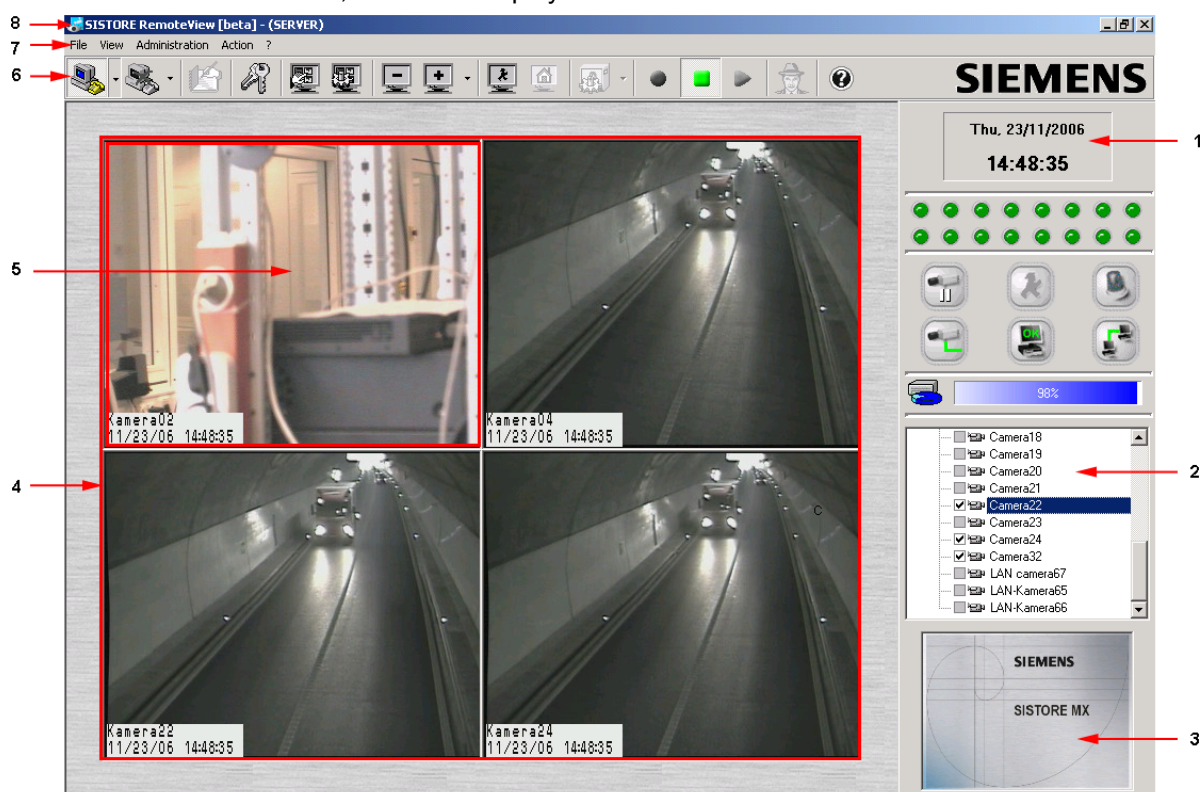
3. Click **Yes**.
 - The system will be closed down and restarted.

26 SISTORE RemoteView

26.1 Software description

26.1.1 Program window

The program window is similar in appearance and function to that of SISTORE MX. In the SISTORE RemoteView display mode, if there are multiple servers connected, the status displays of the selected server will be shown.



The SISTORE RemoteView program window contains the following components:

1	System status and system information.
2	Camera list The cameras associated with the connected servers are displayed below the corresponding server.
3	Starting image The starting image of the application will be shown if no PTZ camera is present or the logged in user does not have the right to control a PTZ camera.
4	Display area for video images
5	Video images
6	Toolbar
7	menu bar
8	Title The name of the current active server will be shown.

A status bar can be switched on or off at the bottom of the program window. Further information on this can be found in the SISTORE MX User Manual.

SISTORE RemoteView toolbar

Nearly all the functions of the software can be invoked using the SISTORE RemoteView toolbar. Buttons with the same functions in SISTORE RemoteView have the same appearance as in SISTORE MX.

	Connecting to SISTORE MX
	Close the connection to SISTORE MX You can close a single connection or all at once.
	Show/hide logbook.
	Login with a new user name.
	Next display group. Manual switching to the next camera group.
	Automatic cycle Automatic switching to the next camera group.
	Fewer cameras.
	More cameras. Clicking the arrow symbol will open a window showing the possible display matrices.
	Show alarm window. An additional alarm window will be shown when an alarm occurs.
	Open map.
	Start recording.
	Stop recording.
	Start playback.
	Start virtual guard rounds.
	Open SISTORE RemoteView help.

26.1.2 Status displays

In the SISTORE RemoteView display mode, if there are multiple servers connected, the status displays of the selected server will be shown. To enable a server, the server or a camera of the server must be selected in the camera list.

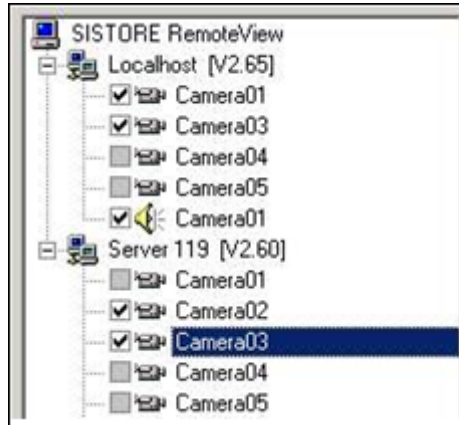


Fig. 189 Camera list

Server-specific status displays

- Time
- Alarm outputs
- Hard drive utilization
- System operating time
- Recording start/stop

Cross-server status displays

The cross-server status display reacts if one of the following events occurs on one of the connected servers:

- Motion
- Alarm
- Loss of video
- Camera tamper
- Fault
- Connection

26.1.3 Overview of functions

Single-server mode

- Configuration
- Restarting the system
- Software update
- CDM and cash box search
- Delete
- View logbook
- User management

Multi-server mode

- Acknowledge sabotage
- Acknowledge malfunctions
- Cancel alarm
- User management

Server-specific functions

- Test alarm
- Cameras on monitor
- Start/stop recording
- Change user
- Logbook comment

Camera-specific functions

Camera-specific functions can be assigned directly to the server belonging to the camera:

- Connection of a camera to an external monitor
- PTZ control

Multi-monitor mode

SISTORE RemoteView supports up to 4 monitors. The individual monitors can be configured as:

- Main monitor
- Display monitor
- Event monitor
- Site plan monitor
- Message dialog monitor

User management

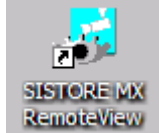
You can assign administration rights for SISTORE RemoteView to one or several users.

26.2 Starting SISTORE RemoteView and logging in

1. Select the Windows menu sequence **Start > Programs > SISTORE MX REMOTEVIEW > SISTORE MX RemoteView**.

– OR –

Double-click on the desktop shortcut **SISTORE MX RemoteView**



→ The application software will be started.



- Once the SISTORE RemoteView application software is started you can view alarm pictures without being logged in.
- To perform any functions or to exit the program you have to log in.

2. Click the **Login** button .

→ The following dialog box opens.

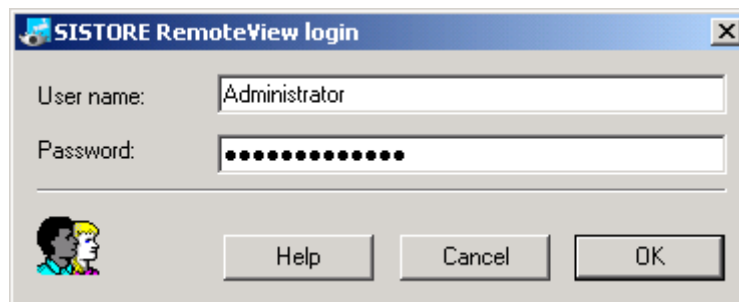


Fig. 190 "SISTORE RemoteView Login" dialog



The user name and password are predefined. The entry is case-sensitive.

3. Enter "Administrator" in the **User name** field.
4. Enter "Administrator" in the **Password** field.
5. Click **OK**.



We advice to change the password after initial start-up. See Section 26.14.2 Creating and changing user accounts.

26.3 Opening configuration mode

Prerequisite:

- There is no connection to a server.

1. Select the menu sequence **Administration > Configure RemoteView**.
→ The configuration mode will open (see Fig. 191).



The parameters for the SISTORE RemoteView application software are saved in the file `SistoreRemoteView.dat`.

26.4 Configuring network connections

26.4.1 Entering the system name

The system name is used primarily for identification of the system during remote access. Enter the location of the system, for example, as the name.

Prerequisites:

- The SISTORE unit is connected to the network.
- There is no connection to a server.

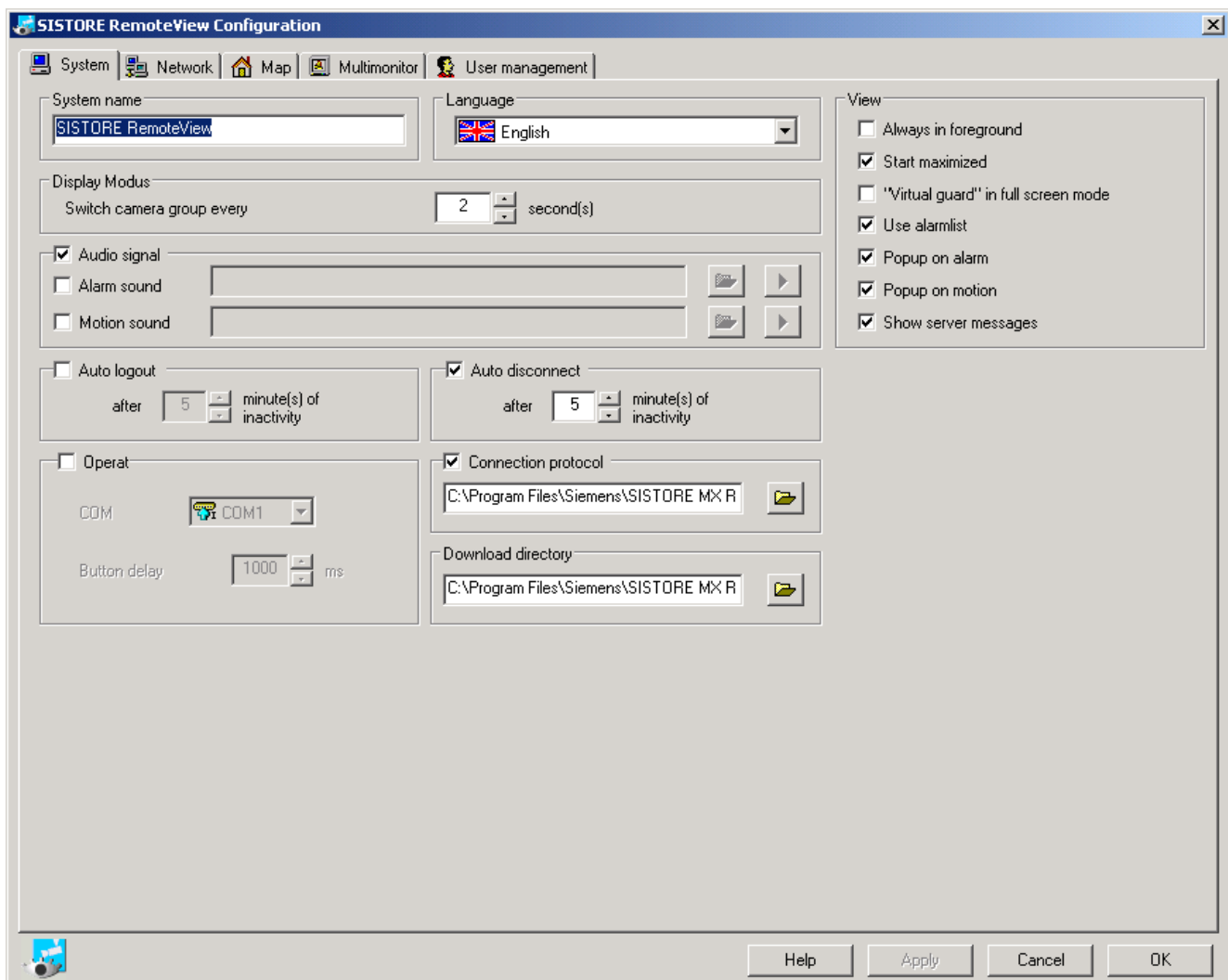


Fig. 191 SISTORE RemoteView – System tab

1. Select the **System** tab.
2. Enter the desired designation in the **System name** text field.
3. Click **Apply**.
→ The setting will be saved.

26.4.2 Configuring the network connection



If you operate the SISTORE MX application software or SISTORE RemoteView behind a firewall and want to access via a network, open all ports in the firewall that are used by the software.

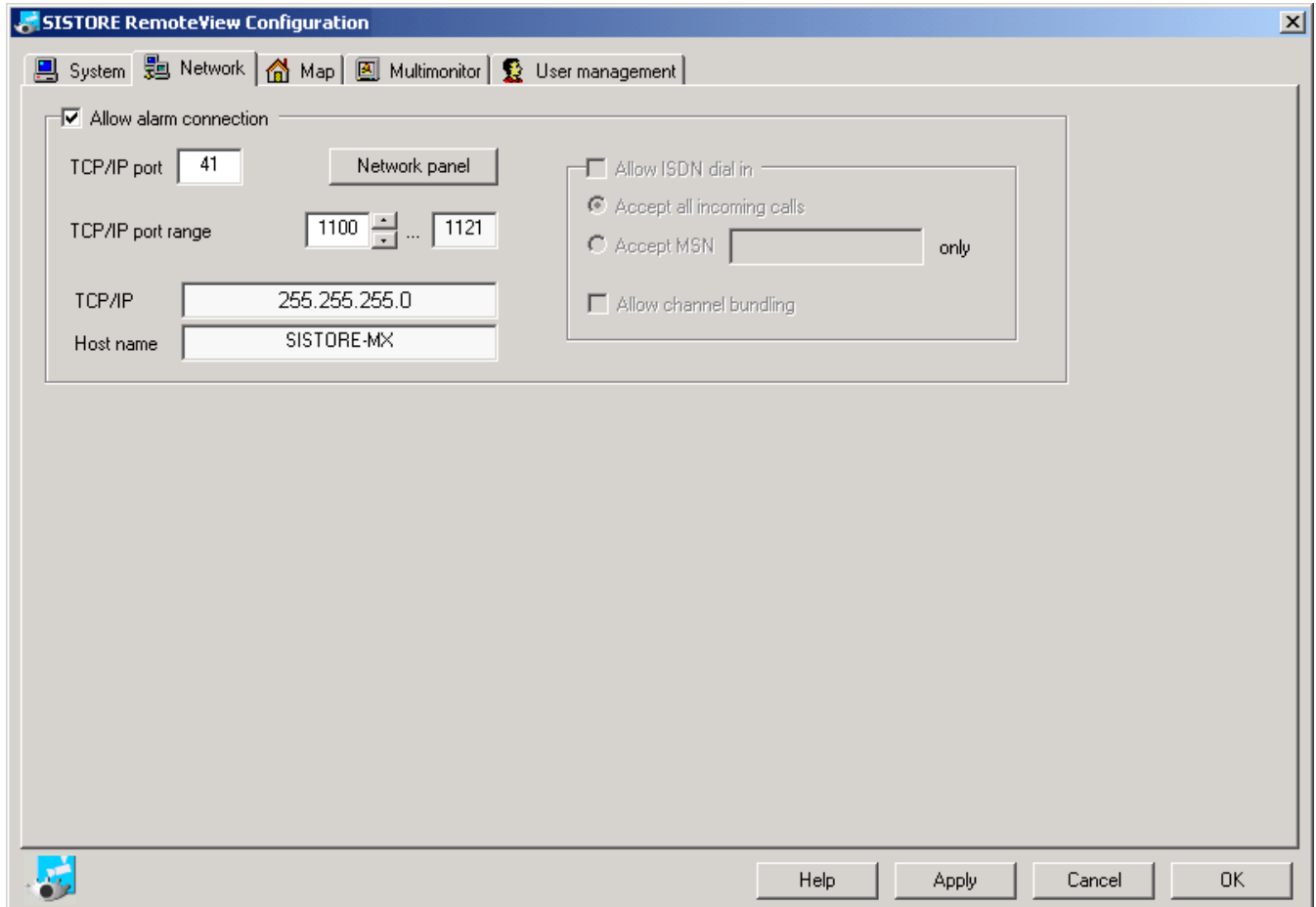


Fig. 192 SISTORE RemoteView – Network tab

Prerequisite:

- The SISTORE unit is connected to the network.

1. Select the **Network** tab.
2. Mark the checkbox **Allow alarm connection**.
3. Confirm the message that follows with **OK**.
4. In the **TCP/IP port** field, enter the number of the port at which the SISTORE RemoteView application software can be reached. Typically port 41 is used.
5. Enter the initial value of the TCP/IP port range in the field for **TCP/IP port range**.
6. The end value of the TCP/IP port range is determined automatically. It depends on the **max. clients** value: two ports are needed for each client.



The TCP/IP address is set during the configuration of the network card. If there is more than one network card in a computer, it is possible that the TCP/IP address shown here will not be that of the LAN card but instead one for another network card.

The host name is shown for information only and is not used by SISTORE RemoteView for any other purpose.

7. Click **Apply**.
 - Your settings will be saved.
 - An information message is displayed.
8. Click **OK**.
 - You are prompted to restart the application.
9. Click **Yes**.
 - The SISTORE RemoteView application is closed.

26.4.3 Configuring ISDN dial-in

Accept all incoming calls



Use the ISDN modem AVM FRITZ! USB v2.0.

We cannot guarantee proper function with other ISDN modems that have not been tested by us.

The SISTORE MX application software and SISTORE RemoteView are **not downward compatible** as of version 2.2.

The SISTORE RemoteView application software reacts only to ISDN calls with the service indicator for **data**. Thus SISTORE RemoteView or the SISTORE MX application software can be operated on an ISDN connection in parallel to ISDN devices with other service indicators.

Prerequisites:

- An ISDN modem is connected to the SISTORE unit.
- An ISDN modem is connected to the client PC (SISTORE RemoteView).

1. Select the **Network** tab (see Fig. 192).
2. Mark the checkbox **Allow ISDN dial-in**.
3. Click the option field **Accept all incoming calls**.
4. Click the option **Accept MSN ... only**.
5. Enter the desired multiple subscriber number in the **Accept MSN ... only** text field.
6. If 2 channels are to be permitted for an ISDN connection, mark the checkbox **Allow channel bundling**.
7. Ensure that the checkbox **Allow channel bundling** is not marked if a B channel is to be kept free for a separate line (such as an alarm system).
8. Click **Apply**.
 - The setting will be saved.

26.5 Selecting the user interface language

1. Select the **System** tab (see Fig. 191).
2. Select a language version from the **Language** list box.
If you select the entry **automatic**, the SISTORE RemoteView application software starts in the language set as the regional language in the operating system.
3. Confirm the message that follows with **OK**.
4. Click **Apply**.
5. Select **Exit** in the **File** menu.
6. Restart the SISTORE RemoteView application software.
→ The SISTORE RemoteView application software now uses the selected language.

26.6 Configuring the display area

26.6.1 Selecting the initial display mode

1. Select the **System** tab (see Fig. 191).
2. Mark the desired checkbox in the **View** group field (see Fig. 193).
3. Click **Apply**.
→ The setting will be saved.

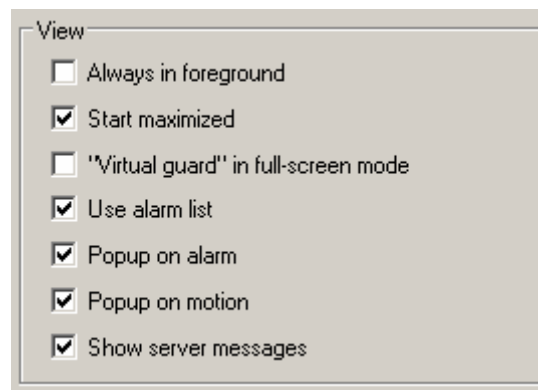


Fig. 193 "View" group field on the "System" tab

Name of the checkbox	Function
Always in foreground	The SISTORE RemoteView application software will always be shown in the foreground and cannot be covered up by another application.
Start maximized	The SISTORE RemoteView application software will always open maximized and can be covered up by other applications.
"Virtual guard" in full screen mode	The virtual guard will run in full screen mode. Only video images will be visible. See Section 26.16 Virtual guard.

Name of the checkbox	Function
Use alarm list	The alarm lists of the connected servers will be displayed in SISTORE MX RemoteView.
Popup on alarm	A pop-up window will open when an alarm occurs.
Popup on motion	A pop-up window will open when a motion is detected.
Show server messages	Messages that are displayed on the server are also transferred to SISTORE RemoteView.

26.6.2 Configuring live image dwell times

1. Select the **System** tab (see Fig. 191).
2. In the field **Switch camera group every** in the **Display Mode** group field select the period (between 2 and 600 seconds) after which the switch is to be made to the next camera group.
3. Click **Apply**.
 - The setting will be saved.

26.7 System message configuration

In the **View** group field you can specify that the SISTORE RemoteView application software is automatically shown in the foreground if an alarm occurs or motion is detected.

1. Select the **System** tab (see Fig. 191).
2. Mark the checkbox **Popup on alarm** in the **View** group field.
3. Mark the checkbox **Popup on motion** in the **View** group field.

In the **Audio signal** group field you can specify that an audio file is played if an alarm occurs or motion is detected.

4. Mark the checkbox **Audio signal**.
 - The **Audio signal** group field will be enabled.
5. Mark the checkbox **Alarm sound**.
 - The audio file will be shown in the text field.
6. Mark the checkbox **Motion sound**.
 - The audio file will be shown in the text field.
7. If you want to select another audio file, click the **Open** button.
 - The **Open** dialog will open.
8. Select the desired audio file.
9. Click **Open**.
 - The audio file will be shown in the text field.
10. If you want to play the audio file to test it, click the **Play** button.
 - The audio file will be played.
11. Click **Apply**.
 - The setting will be saved.

26.8 Enabling automatic logout

In the **Auto logout** group field you can determine whether a user is automatically logged out after a specified period of inactivity.

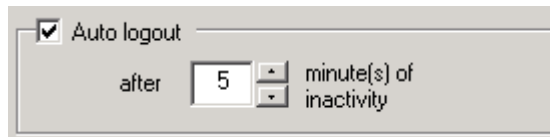


Fig. 194 "Auto logout" group field on the "System" tab

1. Select the **System** tab (see Fig. 191).
2. Mark the checkbox **Auto logout**.
3. In the **minute(s) of inactivity** field, specify the time after which the automatic logout is to occur.
4. Click **Apply**.
→ The setting will be saved.



- Before the user is automatically logged off, the lock icon  in the status bar will flash for one minute. If the user performs an action during this time, the icon will stop flashing and time starts counting again.
- If the **Auto disconnect** option is activated, time will start counting after the connection has been terminated. See Section 26.9.1 Enabling automatic termination of the connection.

26.9 Configuring connections

26.9.1 Enabling automatic termination of the connection

By activating the option **Auto disconnect** you can determine whether the connection to the SISTORE unit is terminated automatically after a predefined period of inactivity on the part of the user.

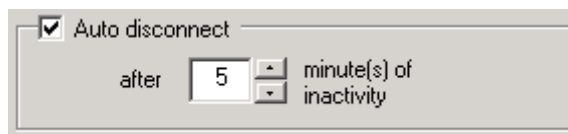


Fig. 195 "Auto disconnect" group field on the "System" tab

1. Select the **System** tab (see Fig. 191).
2. Mark the checkbox **Auto disconnect**.
3. In the **minute(s) of inactivity** field, specify the time after which the connection is to be terminated.
4. Click **Apply**.
→ The setting will be saved.

26.9.2 Enabling connection logging

In the **Connection protocol** group field, you can specify that logging takes place. The images received by the RemoteView client will be saved to the selected directory.

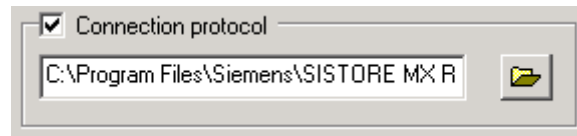


Fig. 196 "Connection protocol" group field on the "System" tab

1. Select the **System** tab (see Fig. 191).
2. Mark the checkbox **Connection protocol**.
3. Click **Open**.
 - The **Select directory** dialog will open.
4. Select the desired folder.



Ensure that the selected storage medium has sufficient capacity, or select a network drive.

5. Click **Select**.
6. Click **Apply**.
 - The setting will be saved.

26.9.3 Selecting the download directory

In the **Download directory** section you can specify in which directory the configuration files are saved that are received from the server and needed for the remote configuration.

1. Select the **System** tab (see Fig. 191).
2. Click the button  **Open** in the **Download directory** group field.
 - The **Select directory** dialog will open.
3. Select the desired folder.



Ensure that the selected storage medium has sufficient capacity, or select a network drive.

4. Click **Select**.
5. Click **Apply**.
 - The setting will be saved.

26.9.4 Connecting to SISTORE MX

In multi-server mode it is possible to view live images or stored recordings from different servers on the SISTORE RemoteView client. Connections can be made to up to 10 servers simultaneously. The connected servers and the associated cameras will be listed in the live image display area. Up to $10 \times 96 = 960$ camera can be included in the list. It is possible to transmit live and recorded audio for both LAN and analog cameras.



- When several SISTORE RemoteView clients are at the same time connected to the same servers, there is a higher network load and a higher CPU load of the server.

There are three possible ways to set up a connection:

- Connecting to SISTORE MX using the toolbar
- Connecting to SISTORE MX via the address book
- Connecting to SISTORE MX via the map



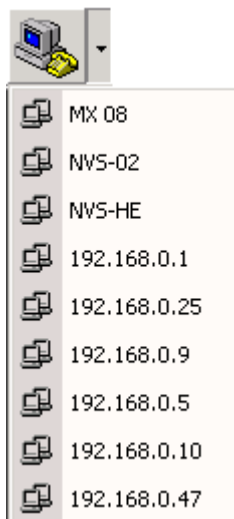
As of version 2.80, the logon to the SISTORE MX application software will take place automatically if the user name and password for SISTORE MX und SISTORE RemoteView are identical. If this is not the case, the user will have to log in manually.

Connecting to SISTORE MX using the toolbar



This function is not available during initial connection setup as the list only shows a history of the connections.

1. Open the list box next to the icon **Connect**.
→ A list showing the connections to SISTORE MX servers appears.



The upper section of the list displays the links to up to 10 SISTORE MX servers that were dialled in last. The bottom section of the list shows the first 10 entries of the address book. Favoured connections will only be displayed if there are one or several entries in the address book.

2. Select a connection.
→ The connection will be established.

Connecting to SISTORE MX via the address book

1. Open the address book. See Section 26.11.1 Opening the address book.
2. Select the desired connection.
3. Click on **Connect**.
 - The connection will be established.

Connecting to SISTORE MX via the map

Prerequisite:

- The map is open. See Section 26.1.1 Program window.
1. Double-click on a server symbol in the map.
 - The connection will be established.

26.10 Enabling the CCTV keyboard

26.10.1 Selecting the serial interface

Prerequisite:

- The CKA driver is installed and the icon  is displayed in the task bar. For information on the subsequent installation of hardware drivers please refer to the Installation Manual.
1. Select the **System** tab (see Fig. 191).
 2. Mark the checkbox **Operating console**.
 3. Select the serial interface to which your control panel is connected from the **COM** field.
 4. Click **Apply**.
 - The setting will be saved.

26.10.2 Enabling button delay

With the checkbox **Button delay** you can define the period after which input from the CCTV keyboard is transmitted to the SISTORE RemoteView application software.

1. Select the **System** tab (see Fig. 191).
2. Mark the checkbox **Operating console**.
3. Select a value for the button delay in the field **Button delay**.
4. Click **Apply**.
 - The setting will be saved.

26.11 Configuring the address book

26.11.1 Opening the address book

Prerequisite:

- You will be in display mode.

Open address book

1. Click the button **Connect** in the toolbar.
– OR –
Select the menu sequence **File > Setup connection**.
→ The following dialog box opens.

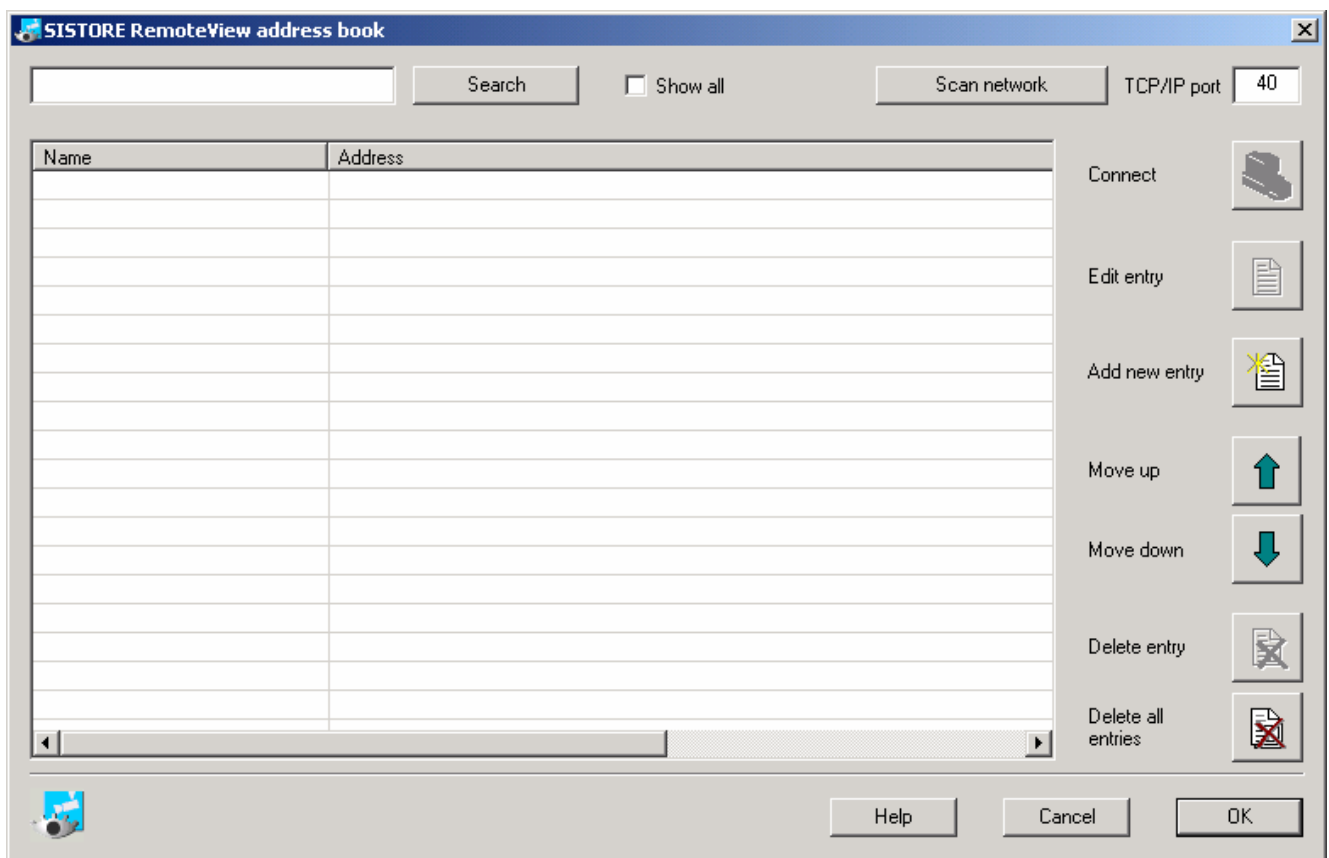


Fig. 197 SISTORE RemoteView address book

- The fields **Name** and **Address** will be shown.

26.11.2 Show all

Prerequisite:

- The address book is open. See Section 26.11.1 Opening the address book.

1. Mark the checkbox **Show all**.
→ The fields **Connection**, **Duration**, **Cameras**, **Server name/IP address**, are displayed.

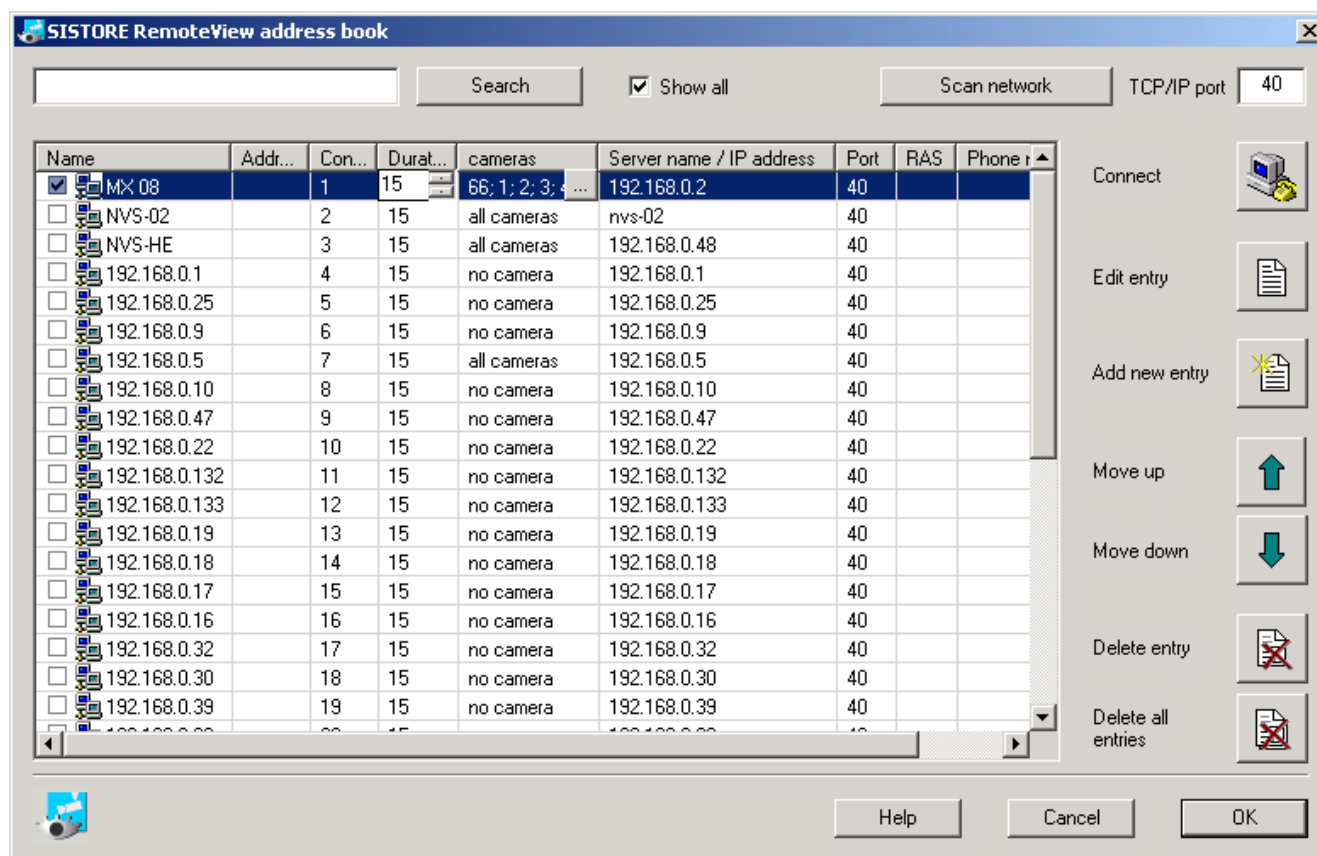


Fig. 198 SISTORE RemoteView address book

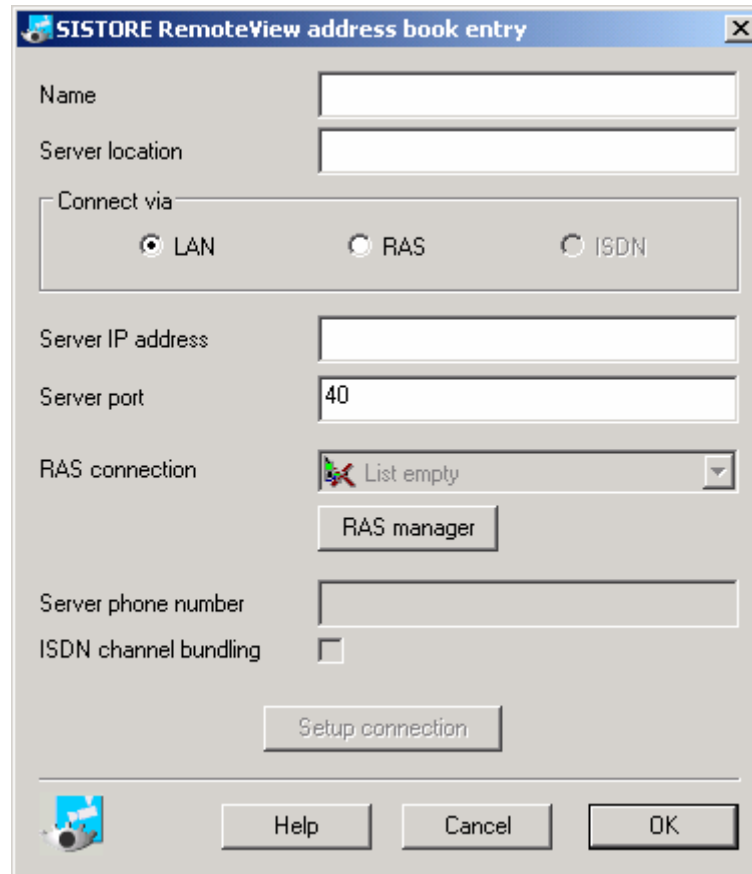
Field	Meaning
Name	In the Name field you can activate the Virtual guard function for the particular connection. See 26.16 Virtual guard.
Address	Location of the SISTORE unit.
Connection	The Connection field is a function of the virtual guard. It indicates the order in which the connections to the devices will be set up.
Duration	The Duration field is a function of the virtual guard. Here you can define for how long the pictures supplied by the cameras at the site that is currently connected to RemoteView will be displayed when the virtual guard function is activated.
Cameras	Clicking in this field will open a window. Here you can select the cameras , audio connections and LAN connections to be displayed in the address book.
Server name / IP address	Server name or the IP address of the server.
Port	Number of the port.
RAS	Number of the RAS connection.
Phone number	Phone number of the ISDN connection.

26.11.3 Adding an entry

Prerequisites:

- The address book is open. See Section 26.11 Configuring the address book.

1. Click the **Add new entry**  button.
→ The following dialog box opens.



The dialog box is titled "SISTORE RemoteView address book entry". It contains the following fields and controls:

- Name:** A text input field.
- Server location:** A text input field.
- Connect via:** A section with three radio buttons: **LAN** (selected), **RAS**, and **ISDN**.
- Server IP address:** A text input field.
- Server port:** A text input field containing the value "40".
- RAS connection:** A dropdown menu showing "List empty" with a small icon to its left.
- RAS manager:** A button located below the RAS connection dropdown.
- Server phone number:** A text input field.
- ISDN channel bundling:** A checkbox, currently unchecked.
- Setup connection:** A button located below the ISDN channel bundling checkbox.
- Buttons:** At the bottom, there are three buttons: **Help**, **Cancel**, and **OK**.

Fig. 199 SISTORE RemoteView address book entry dialog

2. Select the desired connection type in the **Connect via** section. Make sure that the necessary configurations have been made for each connection type.
3. Make the necessary entries in the text fields.



- It is possible to make several entries for an IP address in the address book. This permits cameras to be combined in groups and their pictures to be displayed over different connections.
- Only ciphers and the symbols () - can be entered in the text field **Server phone number**.
- Filling in the field **Server location** is optional.

4. Control connect
5. Click on **Connect**.
→ The connection will be established.
→ The progress of the data transmission is displayed in a window. When the progress display reaches 100 % the connection has been set up and the window is closed.



To set up a connection you must have the authorisation "remote access". Remote access also has to be authorised in the configuration mode of SISTORE MX in the "Allow network access" field.

- A password query dialog will open.
- 6. Enter your **user name** and **password**.
- 7. Click **OK**.
- The connection has been established.

26.11.4 Editing entries

Prerequisites:

- The address book is open. See Section 26.11.1 Opening the address book.
1. Select the entry you wish to edit.
 2. Click the **Edit entry** button .
 - The **Address book entry** dialog box will open. For information on editing address book entries see Section 26.11.3 Adding an entry.

26.11.5 Deleting entries

Prerequisite:

- The address book is open. See Section 26.11 Configuring the address book.

Deleting individual entries

1. Click on the text field of the entry to be deleted.
2. Click on **Delete entry**.
3. Answer **Yes** in the confirmation dialog.
 - The entry will be deleted.

Delete all entries

1. Select **Delete all entries**.
2. Answer **Yes** in the confirmation dialog.
 - All entries will be deleted.

26.11.6 Sorting entries

Using the buttons **Move up** and **Move down** you can set the sequence of the connections. This order of priorities will also be used by the virtual guard and for rapid connection set-up.

Prerequisites:

- The address book is open. See Section 26.11 Configuring the address book.
1. Sort the address book entries according to the order of the connection. Click on the column header **Connection**.
 2. Click **Move up**.
 - The entry will be moved up.

3. Click **Move down**.
 - The entry will be moved down.
4. If you need to sort several entries, repeat steps 1 and 2 as necessary.

26.11.7 Specifying the camera selection

Using the button , you can select the cameras whose live images are to be displayed after a connection has been set up.



In the SISTORE RemoteView application software, a maximum of 36 cameras can be displayed simultaneously. In the live picture, in contrast to SISTORE MX the titles "REC", "STOP" or "DET" are not available.

Prerequisite:

- The address book is open. See Section 26.11.1 Opening the address book.

1. Click on the desired connection.
 - The button  appears.
2. Click the  button.
 - The **Select cameras** window will open.
 - A connection to the selected server will be established in the background.
 - The **Please wait** dialog window opens.

There are two options for how the cameras are shown in the **Select cameras** window:

- The connection to the server has been established.

The cameras configured on the server are listed (with name).

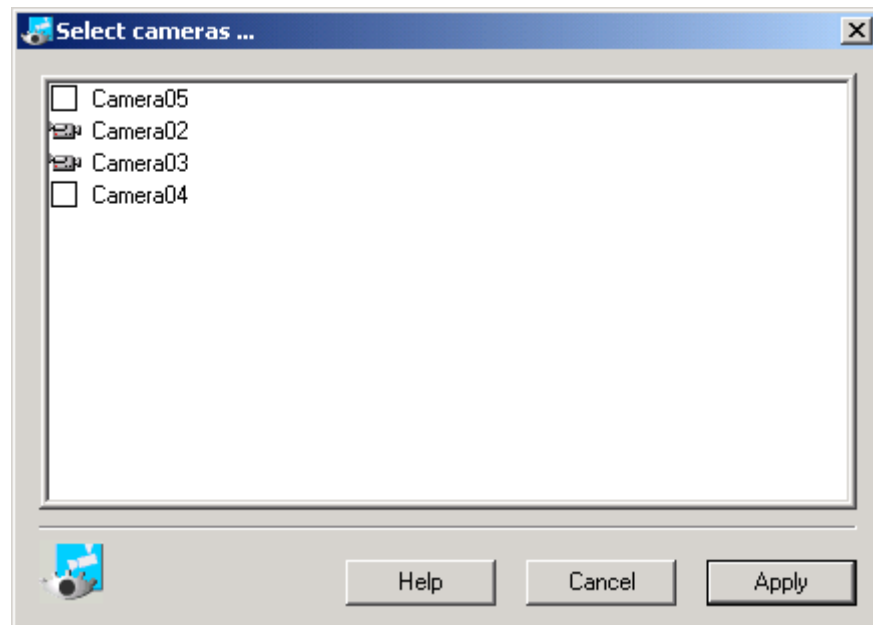


Fig. 200 Select cameras – with server connection

– OR –

- No connection to the server has been established.

A numbered list is shown for selection of the cameras. The camera names are displayed only if there is a connection to the server.



Nos. 1 to 64 of the list are reserved for analog cameras, no. 65 and higher are for LAN cameras.

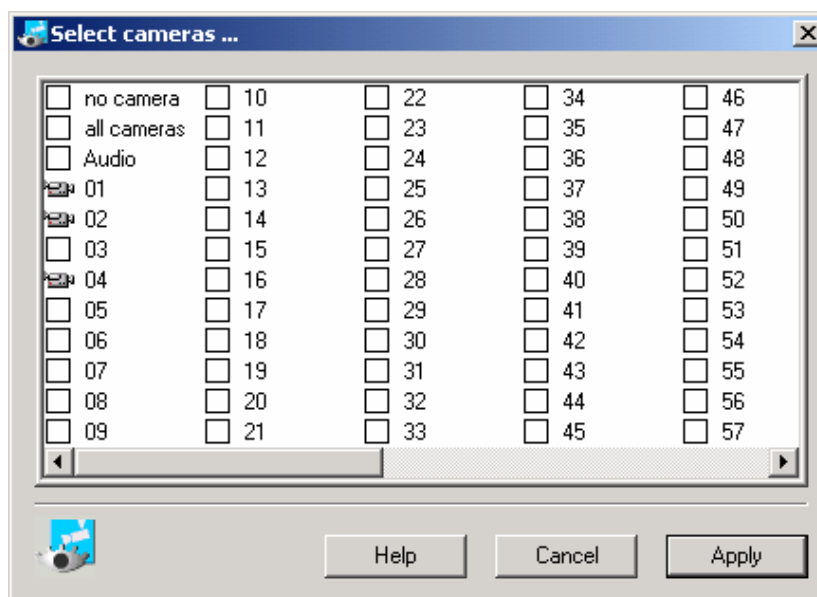


Fig. 201 Select cameras – without server connection

3. Tick the checkbox next to the desired camera.
4. Repeat this step until you have selected the required cameras.



The options **No cameras** and **All cameras** allow a fast selection of cameras.

5. Click **Apply**.
→ The setting will be saved.

26.11.8 Searching for SISTORE MX servers

You can search for SISTORE MX servers in the address book using the **Search** button. Using the **Scan network** button you can search the local network for a SISTORE MX server.

Prerequisite:

- The address book is open. See Section 26.11 Configuring the address book

You have two options to search for a SISTORE MX server:

1. Click on **Search**.
→ The address book will be searched for SISTORE MX Servers.
→ All existing SISTORE MX Servers on the network will be displayed.
- OR –
2. Enter the port in the **TCP/IP Port** text field.



The search is performed only on a specified port. If there are SISTORE MX servers in the local network with different ports, a search will have to be made for each port. This function is currently only available for class C networks `yyy.yyy.yyy.xxx` (yyy are fixed, xxx variable).

3. Click on **Scan network**.
4. Answer **Yes** in the confirmation dialog.
 - The local network will be searched for SISTORE MX servers.
 - All SISTORE MX Servers that are not yet listed in the address book will be entered there automatically.



In view of the restrictions of the operating system version Windows XP ServicePack 2, the **Search network** procedure can take several minutes.

26.12 Configuring the map

In SISTORE RemoteView, maps are configured for the following objects: Addresses (= locations of SISTORE units) and other maps. For this, the SISTORE unit must have been configured in the SISTORE RemoteView address book.

In the SISTORE MX configuration software, maps of the objects that are connected to the SISTORE units (cameras, alarm inputs, alarm outputs, maps) are configured.

When both maps have been configured, the map will be transferred to SISTORE RemoteView as soon as a connection between the SISTORE unit and the SISTORE RemoteView client is set up.

1. Select the **Map** tab.
 - The following dialog box opens.

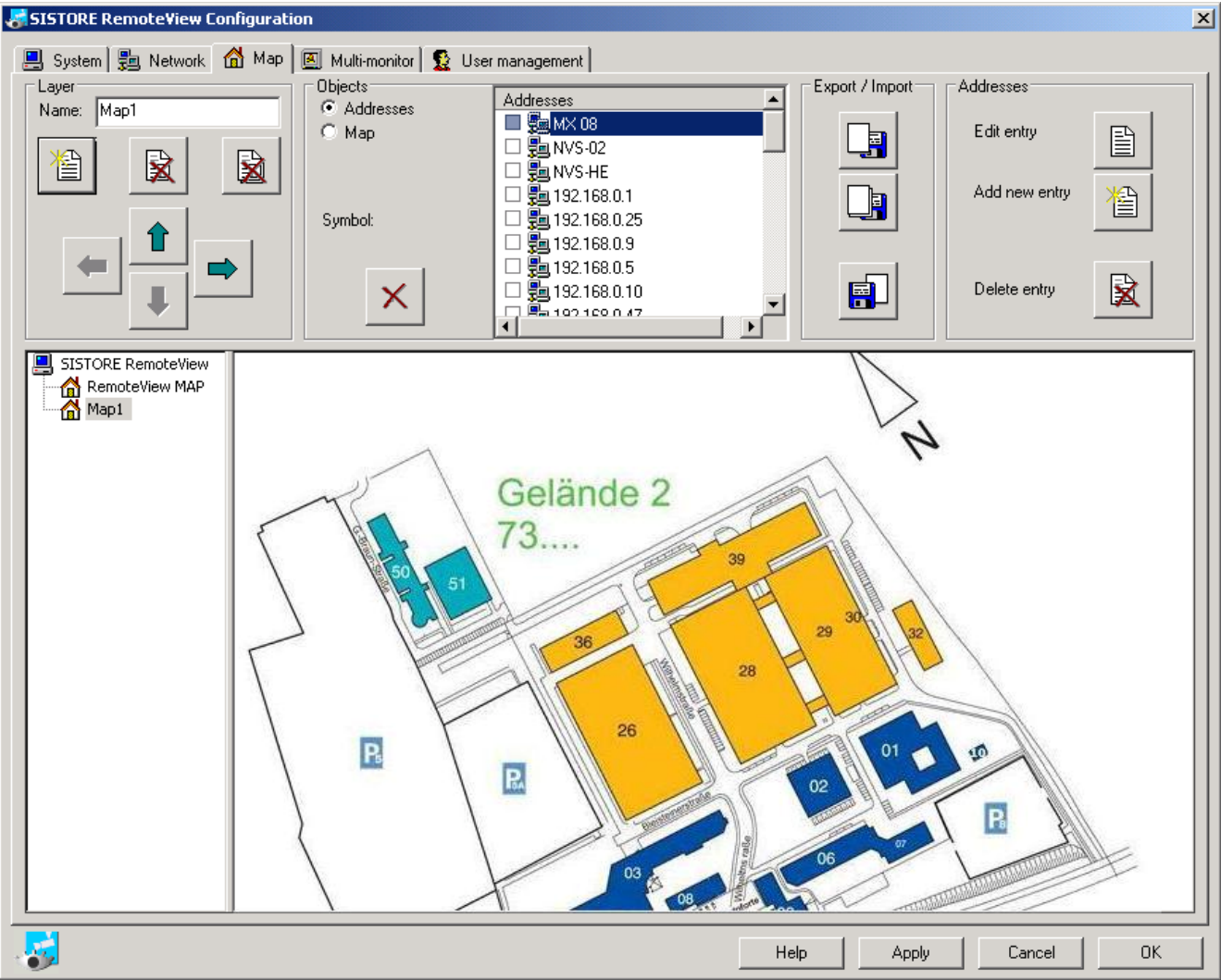
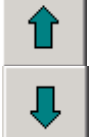


Fig. 202 SISTORE RemoteView – Map tab

2. Configure the map using the following icons.

Layer

Name	Name of the map. The map will be displayed in the tree view with the name entered here.
	Add map to the tree view
	Delete map selected in the tree view
	Delete all maps
	Move map one position up/down.

 	Move map one hierarchy level to left/right. A maximum of 2 hierarchy levels can be created (one subordinate level per main level).
--	--

Objects

Addresses	The addresses entered in the phone book will be listed. The addresses can be placed on the map just like in the case of SISTORE MX (see below).
Map	Alls the maps available in SISTORE RemoteView will be displayed. Using this option the maps can be linked (see Section 13.4 Linking a map).
	Delete an address from the list.

Export / Import

	Export current layer
	Export all layers
	Import one or several layers

Addresses

	Edit the selected address book entry
	Add a new connection to the address book
	Delete the selected entry

26.12.1 Importing a map

Maps are imported automatically when a connection to the server is established. Changes made to server maps are automatically transferred to SISTORE RemoteView the next time a connection is made.

1. Select the **Map** tab.
2. Click on **Import**.
 - The **Open** dialog will open.
3. Select the map to import.
4. Click **Open**.
 - The map will be imported.



Remote configuration of the map on the server is not possible!

26.12.2 Exporting a map

Prerequisite:

- The SISTORE MX application software has been started. See Section 5.16 Starting the SISTORE MX application software and logging in.

1. Select the **Map** tab.
2. Click on the map to export in the map list.
3. Click the **Export** .
 - The **Save As...** dialog will open.
4. Select the directory in which to save the map as a ***.map file**.



You can save the map as a ***.map file** on an external data medium, on a network drive, or locally in the map directory on the RemoteView client, e.g.: C:\...\SISTORE MX\Map.

5. Enter a name in the **File name** field.
6. Click **Save**.
7. Click **Apply**.
 - The map will be saved.



Remote configuration of the map on the server is not possible!

26.12.3 Placing address objects on the map



An address object can be placed on several maps, however only once per map. A maximum of 192 objects can be placed.

1. Select the **Map** tab.
2. Select the **Addresses** option in the **Objects** group field.
3. Select the appropriate address object in the address list.
4. Left-click on the desired position on the map.
 - The address object will be placed on the map.



The placement of the address object is confirmed in the selection list by a mark in the checkbox.

26.12.4 Deleting address objects from the map

1. Select the **Map** tab.
2. Select the **Addresses** option in the **Objects** group field.
3. Remove the checkmark in front of the relevant address object in the address list.
 - OR –
 - Right-click on the particular object and select **Delete** from the context menu.
 - The address object will be deleted.
4. Click **Apply**.
 - The setting will be saved.

26.12.5 Selecting the map view

View of the site plan without connection to a server

Prerequisite:

- A user is logged on to SISTORE RemoteView.
- There is no connection to a server.

1. Click the button **Show map**  in the toolbar.

→ The following view of the map will appear.

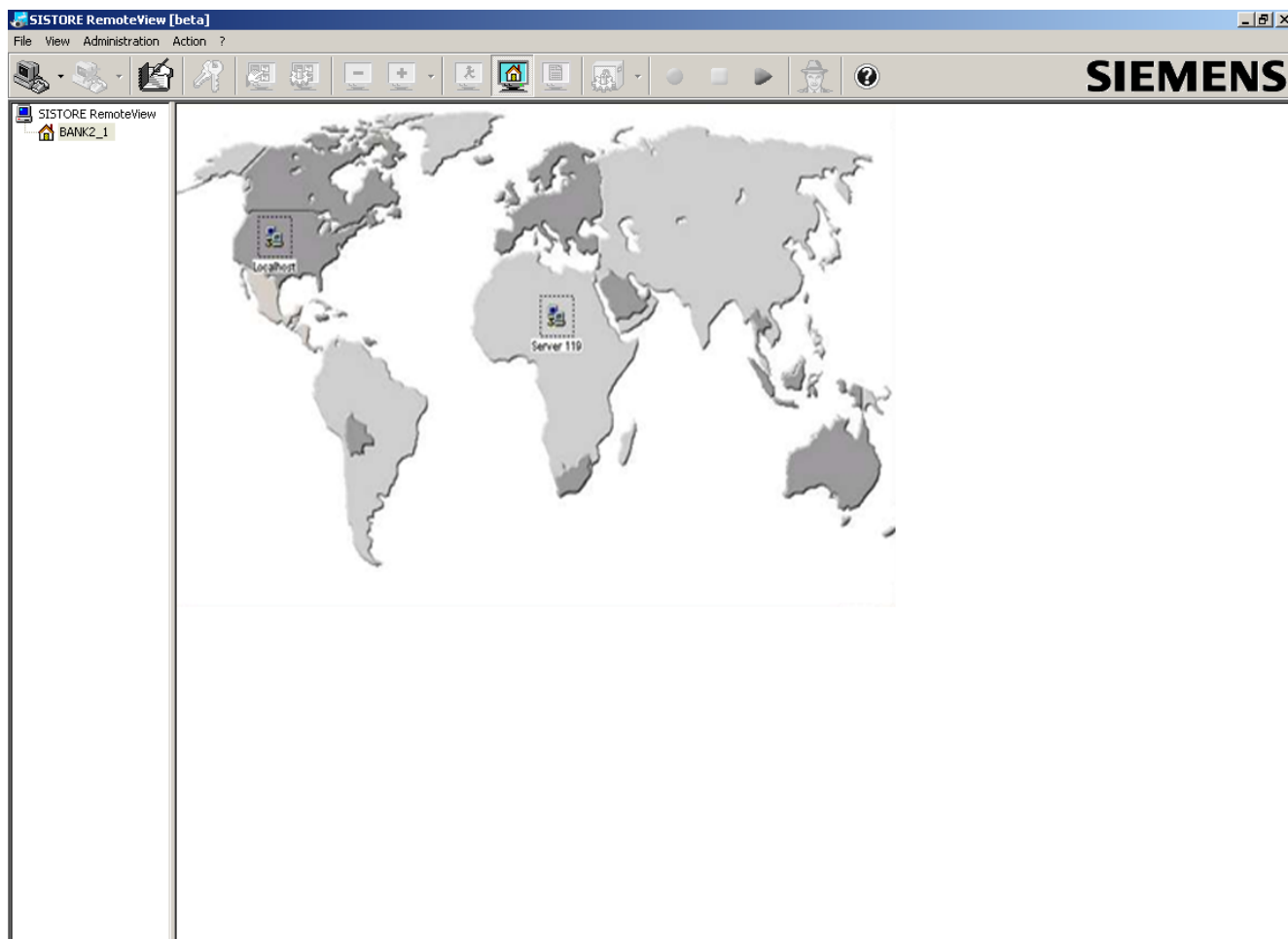


Fig. 203 SISTORE RemoteView map without server connection

View of the site plan with connection to a server

1. Select the menu sequence **File > Setup connection**.
– OR –
Click the button **Connect** in the toolbar.
→ The address book will open.

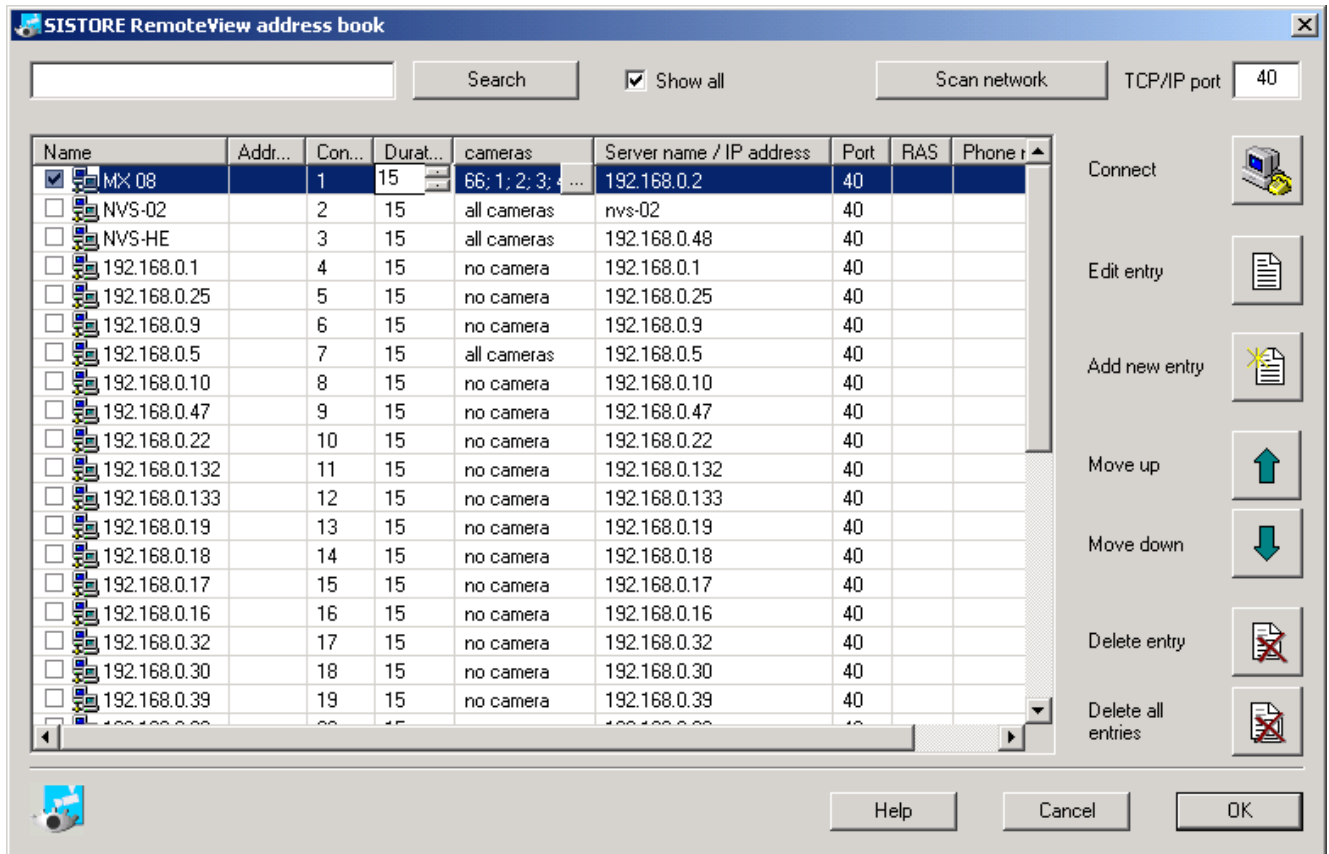


Fig. 204 SISTORE RemoteView address book

2. Select a server.
3. Click the button **Connect**.
→ The following dialog box opens.

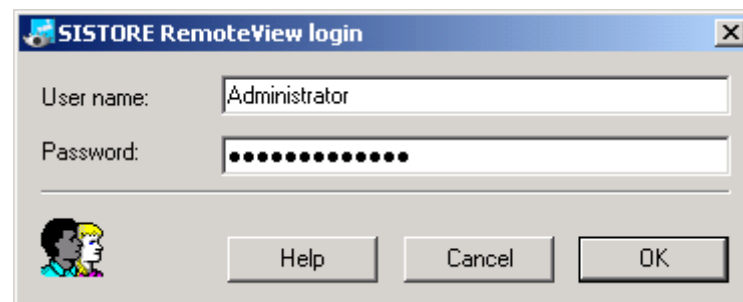


Fig. 205 SISTORE RemoteView Login

4. Enter your user name and password.
5. Click **OK**.
→ The connection to the server has been established.



Only one connection can be established to a server at a time.

6. Click the map display button in the toolbar.
→ The following view of the map will appear.



Fig. 206 SISTORE RemoteView map with server connection

If you move the mouse pointer over an object on the map in this view, the following object information will be shown in an tooltip:

- Object name and description
- IP address and port of the server

26.13 Configuring multi-monitor mode



In order to use multi-monitor mode, the monitors must be configured in Windows: **Start > Control Panel > Display > Settings**. Please note that the configuration of the monitors in Windows can only be changed when the SISTORE MX application software is closed.

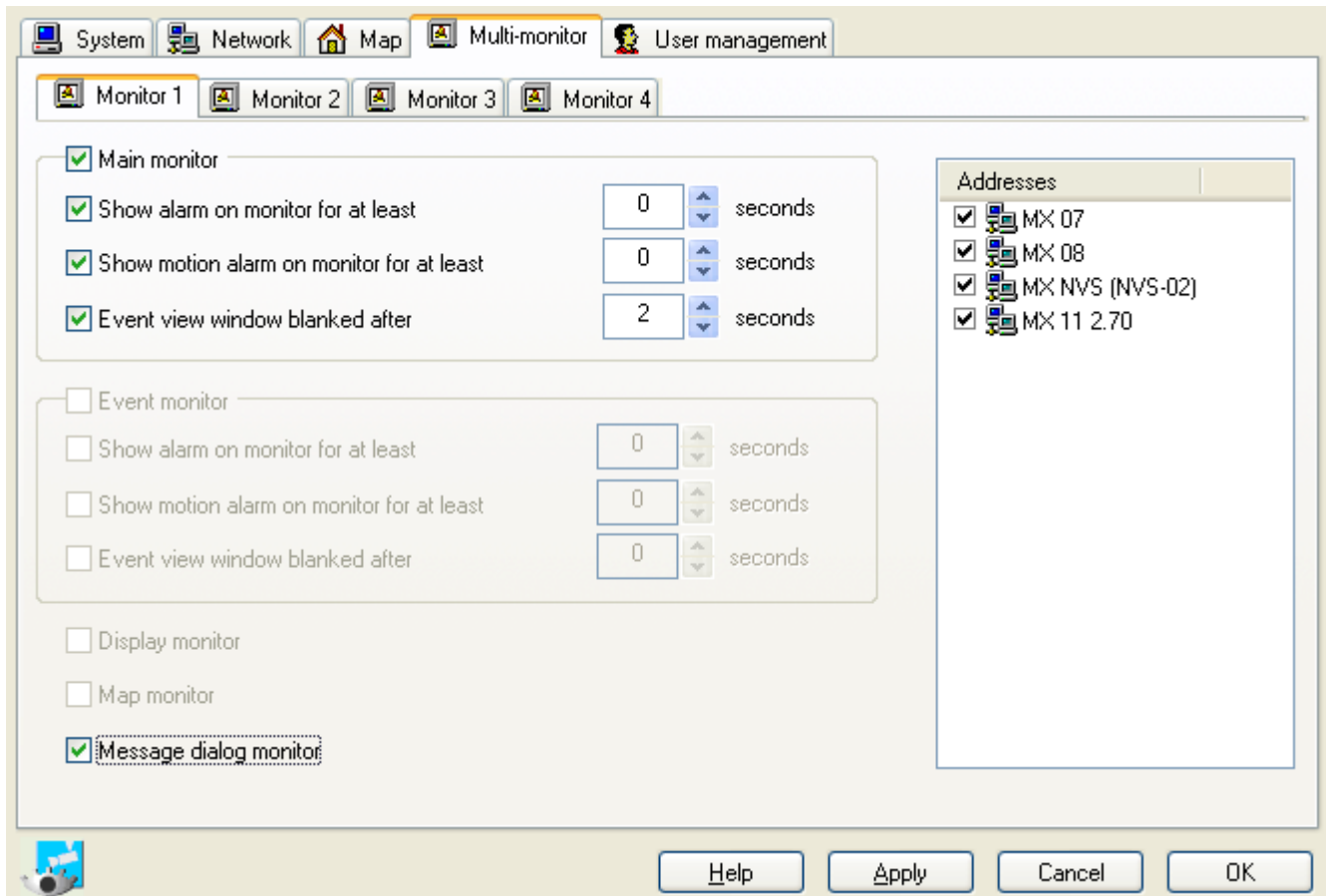


Fig. 207 SISTORE RemoteView – Multi-monitor tab

SISTORE RemoteView supports up to 4 monitors. The individual monitors can be configured as:

- Main monitor
See Section 26.13.1 Configuring a monitor as the main monitor.
- Display monitor
See Section 26.13.2 Configuring a monitor as a display monitor.
- Event monitor
See Section 26.13.3 Configuring a monitor as an event monitor.
- Site plan monitor
See Section 26.13.4 Configuring a monitor as a site plan monitor.
- Message dialog monitor
See Section 26.13.5 Configuring a monitor as a message dialog monitor.

26.13.1 Configuring a monitor as the main monitor

The main monitor displays the operator interface of the application software. The application software can be configured and operated via this monitor.



IMPORTANT

Exactly 1 monitor must be configured as the main monitor.

Fig. 208 Multi-monitor tab – Configuration of the main monitor

Prerequisite:

- The main monitor has not been configured yet.

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Main monitor**.
3. If you want to view events on the main monitor, mark the corresponding checkboxes and select the duration in seconds.

Option	Meaning
Show alarm on monitor for at least ... seconds	Minimum time for which an alarm event will be displayed. New alarm events will not be displayed during this time. You can select a time between 0 and 60 seconds. 0 seconds means that an image will be removed from the screen as soon as another alarm event occurs.
Show motion alarm on monitor for at least ... seconds	Minimum time for which a motion alarm event will be displayed. New motion alarm events will not be displayed during this time. You can select a time between 0 and 60 seconds. 0 seconds means that an image will be removed from the screen as soon as another motion alarm event occurs.
Event view window blanked after ... seconds	Period of time after which the event view window will be blanked. You can select a time between 2 and 300 seconds.

4. Mark the checkboxes of the SISTORE units whose live images are to be displayed on the main monitor in the **Addresses** server list.
5. Click **Apply**.
→ Your settings will be saved.

26.13.2 Configuring a monitor as a display monitor

The display monitor displays live images.



Fig. 209 Multi-monitor tab – Configuration of the display monitor

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Display monitor**.
3. Mark the checkboxes of the SISTORE units whose live images are to be displayed on the display monitor in the **Addresses** server list.
4. Click **Apply**.
→ Your settings will be saved.

26.13.3 Configuring a monitor as an event monitor

The event monitor displays events. An event can be either a movement or an alarm.



When an event monitor has been configured, it is no longer possible to display events on the main monitor.

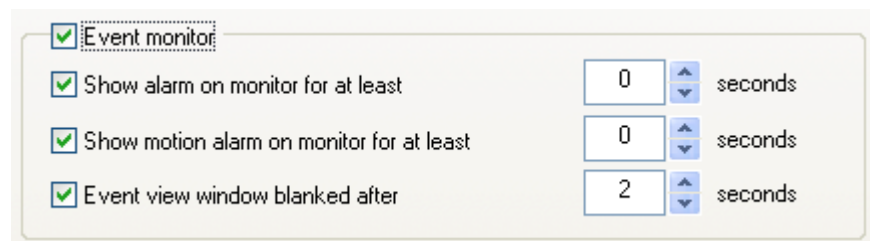


Fig. 210 Multi-monitor tab – Configuration of the event monitor

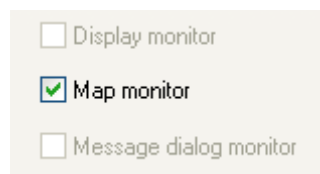
1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Event monitor**.
3. Mark the corresponding checkboxes and enter the duration in seconds.

Option	Meaning
Show alarm on monitor for at least ... seconds	Minimum time for which an alarm event will be displayed. New alarm events will not be displayed during this time. You can select a time between 0 and 60 seconds. 0 seconds means that an image will be removed from the screen as soon as another alarm event occurs.
Show motion alarm on monitor for at least ... seconds	Minimum time for which a motion alarm event will be displayed. New motion alarm events will not be displayed during this time. You can select a time between 0 and 60 seconds. 0 seconds means that an image will be removed from the screen as soon as another motion alarm event occurs.
Event view window blanked after ... seconds	Period of time after which the event view window will be blanked. You can select a time between 2 and 300 seconds.

4. Mark the checkboxes of the SISTORE units whose event images are to be displayed on the event monitor in the **Addresses** server list.
5. Click **Apply**.
 - Your settings will be saved.

26.13.4 Configuring a monitor as a site plan monitor

On a site plan monitor, the site plan is displayed in full screen mode.



☐ Display monitor

☒ Map monitor

☐ Message dialog monitor

Fig. 211 Multi-monitor tab – Configuration of the site plan monitor

Prerequisite:

- A site plan has been configured. See Section 26.12 Configuring the map.
- A site plan monitor has not been configured yet.

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Map monitor**.
3. Click **Apply**.
 - The setting will be saved.

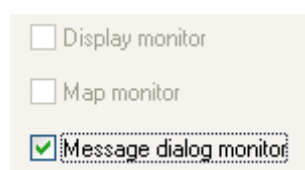
26.13.5 Configuring a monitor as a message dialog monitor

The message dialog monitor displays all pop-up dialogs. The main monitor can also be configured as a message dialog monitor.



IMPORTANT

Exactly 1 monitor must be configured as a message dialog monitor.



☐ Display monitor

☐ Map monitor

☒ Message dialog monitor

Fig. 212 Multi-monitor tab – Configuration of the message dialog monitor

Prerequisite:

- A message dialog monitor has not been configured yet.

1. Select the **Multi-monitor** tab.
2. Mark the checkbox **Message dialog monitor**.
3. Click **Apply**.
 - The setting will be saved.

26.14 Configuring user management

There are 2 user groups in SISTORE RemoteView:

- **Administrator:** An administrator has the user right **Configuration** for SISTORE RemoteView as well as the user right **Re-Play (offline evaluation)** for local evaluation of databases. Further information on this can be found in the SISTORE MX User Manual.
- **User:** A user does not have the user rights **Configuration** and **Re-Play (offline evaluation)**.

"Users" need 2 user accounts: 1 account for the SISTORE MX application software and 1 account for SISTORE RemoteView. If you create two accounts with identical user names and passwords the user will have to log on only once (as of V2.80).

User rights must be assigned in the SISTORE MX application software. See Section 14 Configuring user and access management. The user right **Configuration** is assigned separately for SISTORE MX and SISTORE RemoteView; this means that a user who has been granted the right **Configuration** in the SISTORE MX application software does not automatically have this right for SISTORE RemoteView as well.

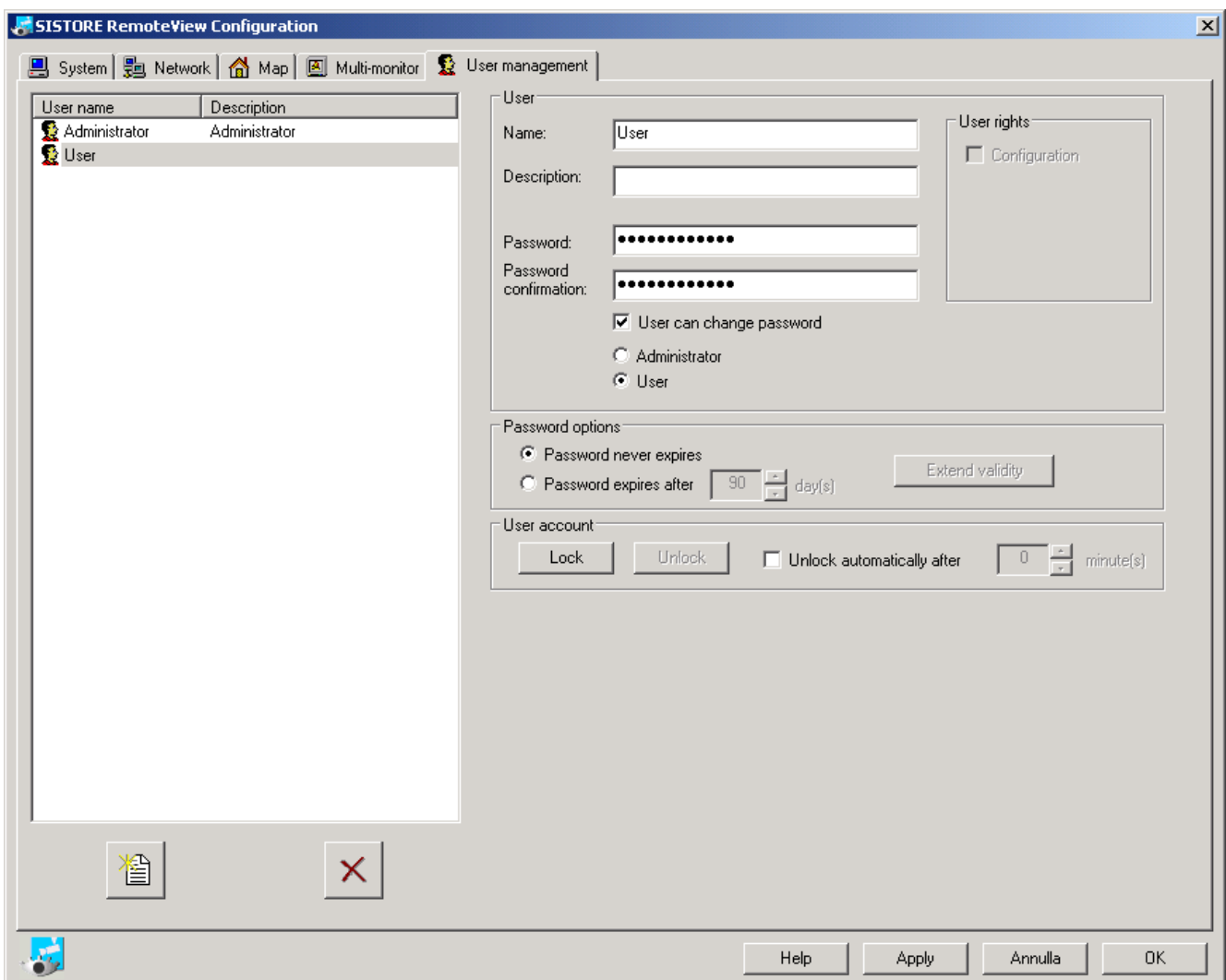


Fig. 213 SISTORE RemoteView – User management tab

26.14.1 Predefined user account Administrator



Only use the user account Administrator if it is necessary!

The software is delivered with the user account Administrator already set up. The password assigned to it is "Administrator". **Change the password** after initial start-up.

This user account cannot be deleted and it can be configured only to a limited extent.

- Administrator: has all rights

Users who have only basic knowledge of SISTORE MX should only use user accounts.

26.14.2 Creating and changing user accounts

User name	Description
Administrator	Administrator
Installer	Installer
John Doe	User

Fig. 214 User account list on the User management tab

The form is titled "User". It contains the following fields and options:

- Name:** Text field containing "John Doe".
- Description:** Text field containing "guard".
- Password:** Password field with masked characters (dots).
- Password confirmation:** Password field with masked characters (dots).
- User group selection:**
 - ☒ User can change password
 - ☐ Administrator
 - ☒ User

Fig. 215 User group field on the user management tab

Prerequisite:

- You have the right Configuration.

1. Select the **User management** tab.
2. Click the **Add** button below the user account list.
→ A new line will be added to the user account list.



If the text fields **Name**, **Password** and **Password confirmation** are not filled in completely or no user rights have been assigned, an error message will be displayed.

3. Enter a name for the user account in the **Name** text field.

4. Enter a short description in the **Description** text field.
5. Enter a password with at least eight characters in the **Password** text field.
6. Re-enter the password in the **Password confirmation** text field.
7. If users who are logged in to this account may change the password, mark the checkbox **User can change password**.
8. To assign the user to a user group, select one of the options **Administrator** or **User**.
9. Click **Apply**.
 - Your settings will be saved.

26.14.3 Deleting user accounts

User name	Description
 Administrator	Administrator
 Installer	Installer
 John Doe	User

Fig. 216 User account list on the User management tab



The user account "Administrator" cannot be deleted.

Prerequisite:

- You have the right Configuration.
1. Select the **User management** tab.
 2. Select the user account you want to delete in the list.
 3. Click the button **Delete** .
 4. Answer **Yes** in the confirmation dialog.
 - The user account will be deleted from the user account list.

26.14.4 Locking user accounts



After a password is entered incorrectly three times, the user account will be blocked. To unlock: See Section 26.14.5 Unlocking a user account.

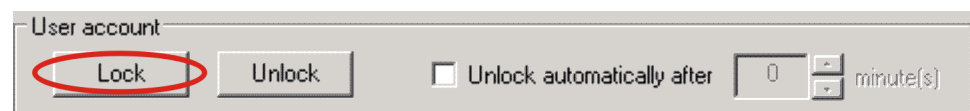


Fig. 217 Lock button on the User management tab

Prerequisite:

- You have the right Configuration.
1. Select the **User management** tab.
 2. Select the user account you want to lock from the user account list.

3. Click **Lock**.
4. Click **Apply**.
 - The setting will be saved.
 - The user account is locked.

26.14.5 Unlocking a user account

You can unlock a user account manually or automatically.

Prerequisite:

- You have the right Configuration.

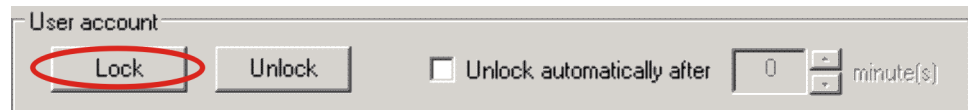


Fig. 218 User account group field on the User management tab

Manually unlocking a user account

1. Select the **User management** tab.
2. Select the user account you want to unlock from the user account list.
3. Click **Unlock**.
4. Click **Apply**.
 - The setting will be saved.
 - The user account is unlocked.

Automatically unlocking a user account

1. Select the **User management** tab.
2. Select the user account you want to unlock automatically from the user account list.
3. Mark the checkbox **Unlock automatically after**.
4. Enter a value in minutes in the **minute(s)** text field.
5. Click **Apply**.
 - The setting will be saved.
 - The user account will be unblocked after the time entered has passed.

26.14.6 Configuring the validity period of a password

Prerequisite:

- You have the right Configuration.

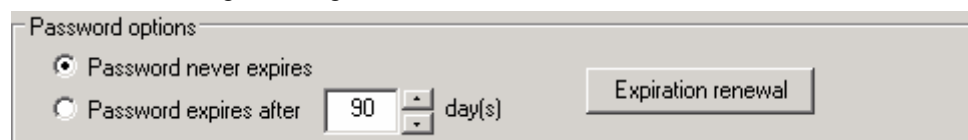


Fig. 219 Password options group field on the User management tab

Limiting the validity period of a password

1. Select the **User management** tab.
2. Select the option **Password expires after**.

3. Enter a value in the **day(s)** field to indicate how many days the password is to be valid.
4. Click **Apply**.
 - The setting will be saved.

Extending the validity period of a password

1. Select the **User management** tab.
2. Click **Expiration renewal**.
3. Click **Apply**.
 - The validity of the password will be extended by the number of days specified in the **day(s)** text field. The date from which the extension is calculated is the current one.

Removing the restriction of validity of a password

1. Select the **User management** tab.
2. Select the option **Password never expires**.
3. Click **Apply**.
 - The setting will be saved.

26.14.7 Enabling control panel control

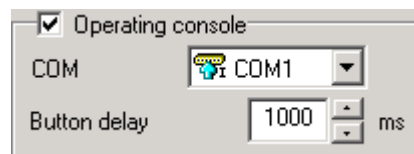


Fig. 220 "Operating console" group field on the "System" tab

Prerequisites:

- The CKA driver is installed and the icon  is displayed in the task bar. For information on the subsequent installation of hardware drivers please refer to the Installation Manual.
- A control panel is connected to the client PC.

1. Select the **System** tab.
2. Mark the checkbox **Operating console**.
 - The **CCTV keyboard** group field will be enabled.
3. Select the interface to which your control panel is connected from the **COM** dropdown field.
4. Enter a value in milliseconds in the **Button delay** text field.
 - If no keyboard input takes place within the specified time, the entry is considered complete.
5. Click **Apply**.
 - Your settings will be saved.

26.15 Configuring SISTORE MX via SISTORE RemoteView

SISTORE RemoteView can be used for remote configuration of a SISTORE MX server. This function corresponds to the function for importing a configuration, except that a configuration file is sent by remote data transfer to the server.



Transmission errors should be detected by a checksum contained by the configuration file. If the checksum is incorrect, the configuration will not be imported.

For changes to the configuration the same dialogs are used as in the SISTORE MX application software.

The functions of the dialogs and dialog elements are therefore the same.

The following limitations apply in this regard:

- It is not possible to display motion detection.
- Recording media (hard drive partitions) cannot be changed.
- A database directory cannot be specified.
- The language version cannot be changed.
- The option "Always in foreground" cannot be changed.
- The option "On-screen keyboard" cannot be changed.
- Network parameters cannot be changed.

Prerequisite:

- The SISTORE MX application software is in display mode. See Section 4.1.1 Display mode.



Banking mode, cash dispenser mode and the recording media cannot be activated/deactivated via SISTORE RemoteView.

You have two options to configure a SISTORE MX server:

- Option A: online, i.e. transmission of the configuration, changing of the configuration, loading of the configuration, starting of the configuration on the server.
– OR –
- Option B: offline, i.e. an existing configuration is edited without a connection to the server, then a connection is established and the configuration is sent to the server.

26.15.1 Online configuration (option A)

1. Set up a connection to the server. See Section 26.9.4 Connecting to SISTORE MX.
2. Select **Configuration ...** in the **Administration** menu (see Figure below).

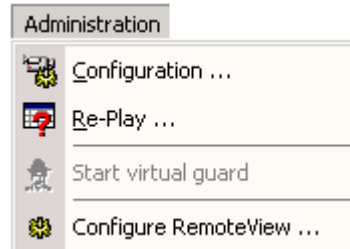


Fig. 221 SISTORE RemoteView – Administration menu

3. Answer **Yes** in the confirmation dialog.

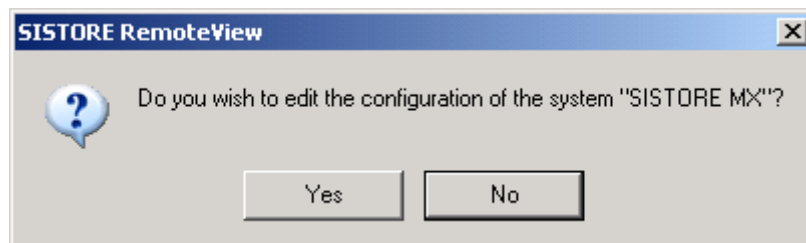


Fig. 222 SISTORE RemoteView – configuration option for the server

- The configuration file will be transferred from the server and saved in the download directory.
 - SISTORE RemoteView will switch to configuration mode.
 - The file will be opened automatically.
4. Change the configuration.
 5. Click **Apply**.
 6. Answer **Yes** in the confirmation dialog.



Fig. 223 SISTORE RemoteView – sending the server configuration

- The transmission will be performed.
- After receiving the configuration, the server will import and apply it.



Recording will be stopped for a few seconds. The connection to RemoteView will be terminated.

7. Check whether the server is recording again and everything is running properly.

- The transfer of a new configuration is recorded as information in the server's logbook. The logbook will also indicate whether the server has accepted and applied the new configuration.



- If a configuration contains more cameras than are available on the recording system, only the first cameras of the configuration will be applied. All further cameras will be ignored.
- This also applies for objects that are in a configuration but are not physically present in the recording system.
- Settings which cannot be configured remotely, such as recording drives, network settings or deleting or adding LAN cameras, will not be applied by the server from the new configuration. For these parameters the existing settings will continue to be used. This is to avoid malfunctions.



A malfunctions may result in a server restart triggered by the Watchdog. The malfunction will possibly be corrected by the restart.

Restarting the server manually via SISTORE RemoteView

If the server can be reached by remote data transfer, it can be restarted via the SISTORE RemoteView application software.

1. Select **Restart system** from the **Action** menu.

26.15.2 Offline configuration (option B)

1. Select **Receive configuration** from the **File** menu.

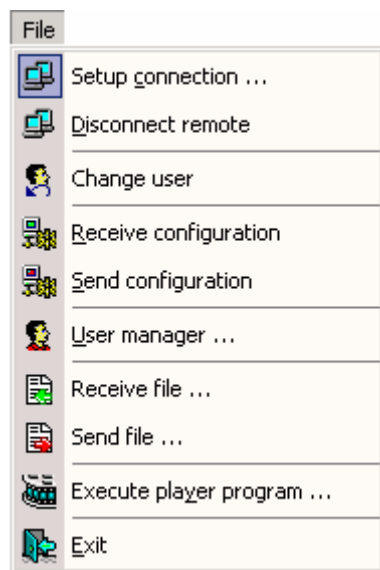


Fig. 224 SISTORE RemoteView: File menu

- The SISTORE RemoteView application software receives a copy of the configuration from the SISTORE MX server
2. Edit the configuration. A remote data transfer connection is not required for this.
 3. Select **Send configuration** from the **File** menu.

→ You can select a file and send it to the SISTORE MX server.

26.15.3 Defining the detection area (mask)

Prerequisite:

- The SISTORE MX application software is in display mode. See Section 4.1.1 Display mode.
1. Set up a connection to the server. See Section 26.9.4 Connecting to SISTORE MX.
 2. Select **Configuration...** in the **Administration** menu.
 3. You can generate and change the detection area of cameras via remote configuration. The drawing of the detection area is performed as in the SISTORE MX application software. See Section 9.3.2 Defining the detection area (mask).



- The **pencil** drawing tool is not available.
 - If the camera is not in operation, the mask will be shown in a gray window. You can still draw the mask, but this leads to a very inexact result.
-

26.15.4 Setting image quality

Prerequisite:

- The SISTORE MX application software is in display mode. See Section 4.1.1 Display mode.
1. Set up a connection to the server. See Section 26.9.4 Connecting to SISTORE MX.
 2. Select **Configuration...** in the **Administration** menu.
 3. You can generate and change the image quality of the cameras via remote configuration.



- If you have not selected an image quality, the default quality (LAN) of the system will be used.
 - There is no feedback from the system regarding detected motions (graphics, audio signals, signal lamp).
-

26.15.5 Changing user data

Prerequisites:

- The SISTORE MX application software is in display mode. See Section 4.1.1 Display mode.
- You have the user rights configuration, remote access and user administration.

1. Set up a connection to the server. See Section 26.9.4 Connecting to SISTORE MX.
2. Select **Configuration...** in the **Administration** menu.

You can change user data via remote configuration. However, for security reasons, this is only possible with Option A (online).

See Section 26.15 Configuring SISTORE MX via SISTORE RemoteView.

The procedure is similar to that with the SISTORE MX server. The changed user data are transmitted to the SISTORE MX server when the user administration dialogs are closed.

26.16 Virtual guard

26.16.1 Starting and terminating the virtual guard

Starting the virtual guard

There are several possibilities to start the virtual guard:

Using the mouse:

1. Click the button **Start virtual guard** in the toolbar.
– OR –
Select **Start virtual guard** in the **Administration** menu.

Using the command line:

1. Enter the following command in the command line: -vguard
– OR –
Enter the following command in the command line: SistoreRemoteView.exe – vguard



While the virtual guard is running in SISTORE RemoteView, it is not possible to establish a connection to the RemoteView client if an alarm occurs.

Terminating the virtual guard

You have two options to end the virtual guard:

1. Click the button  in the toolbar.
– OR –
Select the menu sequence **Administration > Terminate virtual guard**.

Logging on to the server

A log-in on the server takes place automatically. The user rights for this automatic log-in, however, are very restricted. Replay and configuration are not possible.

If you wish to reach further rights:

1. Click **Login** .
→ The **SISTORE RemoteView Login** dialog box is opened.
2. Enter another user name in the **User name** text field.
3. Enter the appropriate password in the **Password** field.



The virtual guard will be interrupted, i.e. there is no automatic disconnection and reconnection if the user performs such an action.

26.16.2 Configuring the virtual guard

The virtual guard performs the following tasks:

- Time-controlled, automatic connection to various recording systems in a specific order
- Display predefined cameras
- Terminate the connections after a specified time

The connection data are taken from the address book.

Prerequisite:

- The address book contains connection entries. See Section 26.11 Configuring the address book

1. Select **Connect** from the **File** menu.

→ The following dialog box opens.

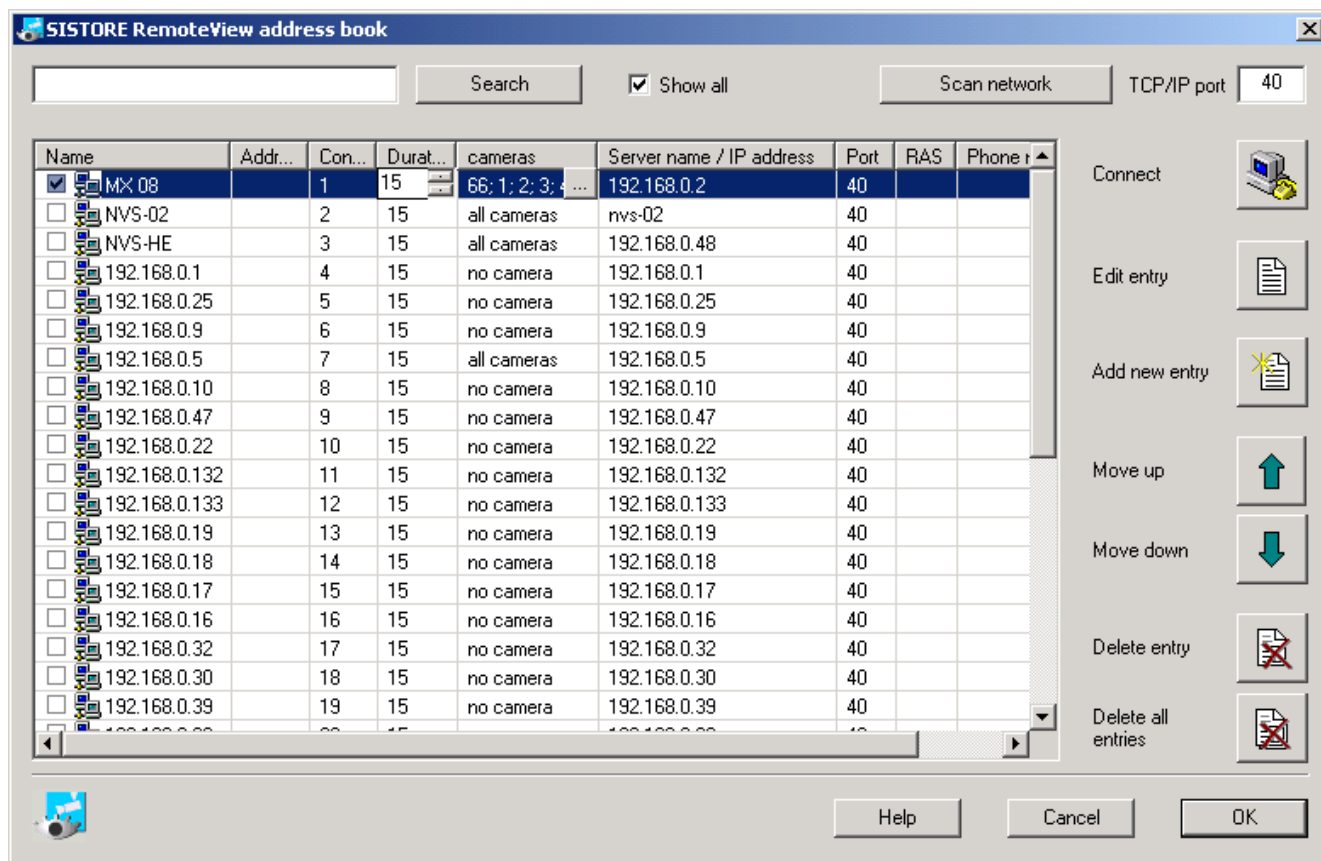
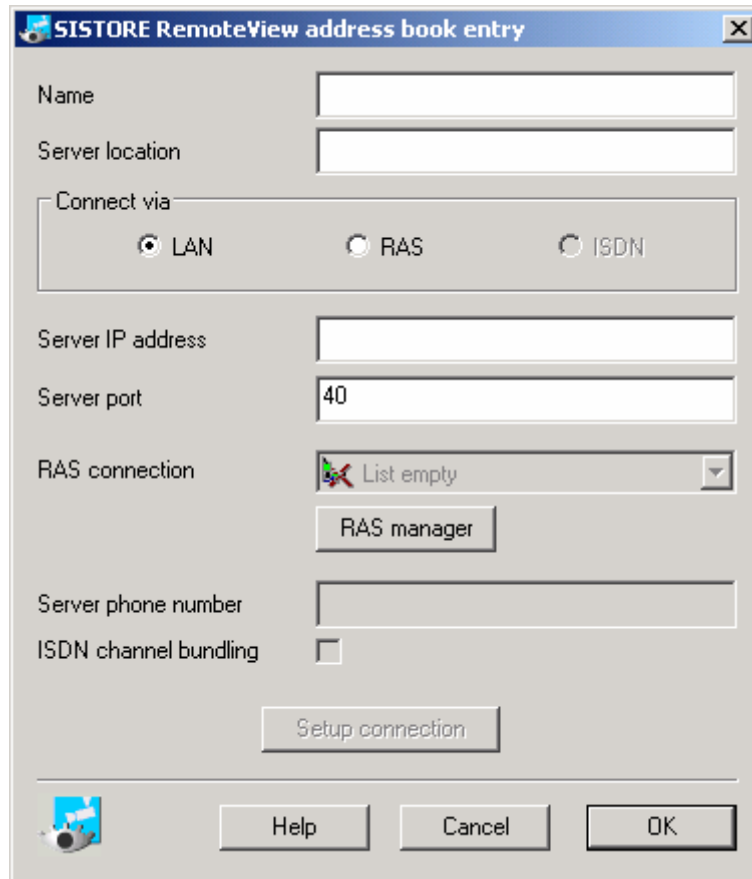


Fig. 225 SISTORE RemoteView address book

2. Mark the checkbox **Show all**.
→ The fields **Duration** and **Cameras** will be shown.
3. Click the **Add new entry** button.

→ The following dialog box opens.



The dialog box is titled "SISTORE RemoteView address book entry". It contains the following fields and controls:

- Name:** A text input field.
- Server location:** A text input field.
- Connect via:** A group box containing three radio buttons: **LAN** (selected), **RAS**, and **ISDN**.
- Server IP address:** A text input field.
- Server port:** A text input field containing the value "40".
- RAS connection:** A dropdown menu showing "List empty" with a red 'X' icon. Below it is a button labeled "RAS manager".
- Server phone number:** A text input field.
- ISDN channel bundling:** A checkbox that is currently unchecked.
- Buttons:** At the bottom, there is a "Setup connection" button, and at the very bottom, "Help", "Cancel", and "OK" buttons.

Fig. 226 SISTORE RemoteView address book entry dialog

4. Select one or more connections in the **address book**.
5. Click **OK**.
 - The address book is closed.
 - The selected connections will be copied to the guard function and be displayed in the configuration dialog of the virtual guard.
6. Set a connection duration in seconds for each connection.
7. Select the cameras whose live images are to be displayed after a connection has been set up. See Section 26.11.7 Specifying the camera selection.
8. Change the sequence of the connections using the buttons **Move up** and **Move down**.



Clicking the button **Delete all entries** deletes all entries from the address book.

26.17 File transfer

Using the **file transfer** function you can transfer files from the server to SISTORE RemoteView and vice versa.

Prerequisite:

- There is a connection to a version 2.70 or higher server.

Sending files

1. Select the menu sequence **File > Send file....**
→ The following dialog box opens.

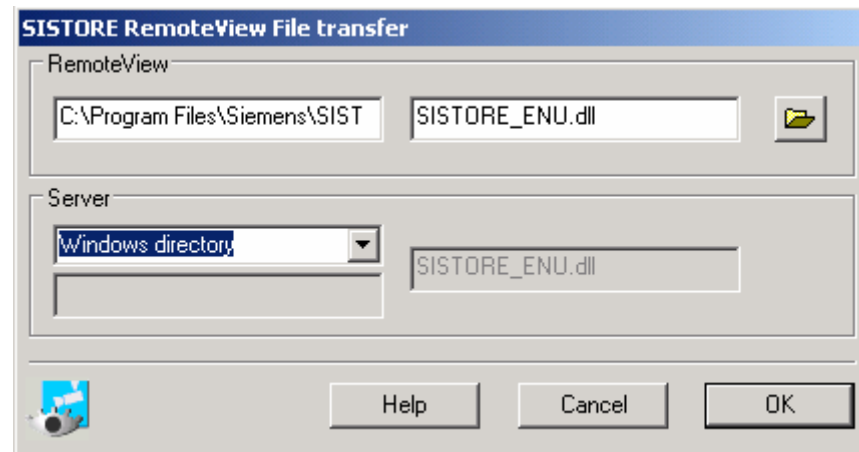


Fig. 227 SISTORE RemoteView File transfer dialog

2. In the **RemoteView** group field, select the file you want to send.
3. Select the target directory in the **Server** group field.
4. Enter the file name in the text field in the **Server** group field.



- The name of the target file must match the name of the source file.
- File transfer is only possible if the selected directory exists on the server and the file to transfer is not opened. Thus the file **SISTORE.exe** cannot be transferred, for example.

5. Click **OK**.

Receiving files

1. Select the menu sequence **File > Receive file....**
→ The **file transfer** window will open.
2. In the **RemoteView** group field, select the file you want to receive.
3. Select the source directory in the **Server** group field.
4. Click **OK**.

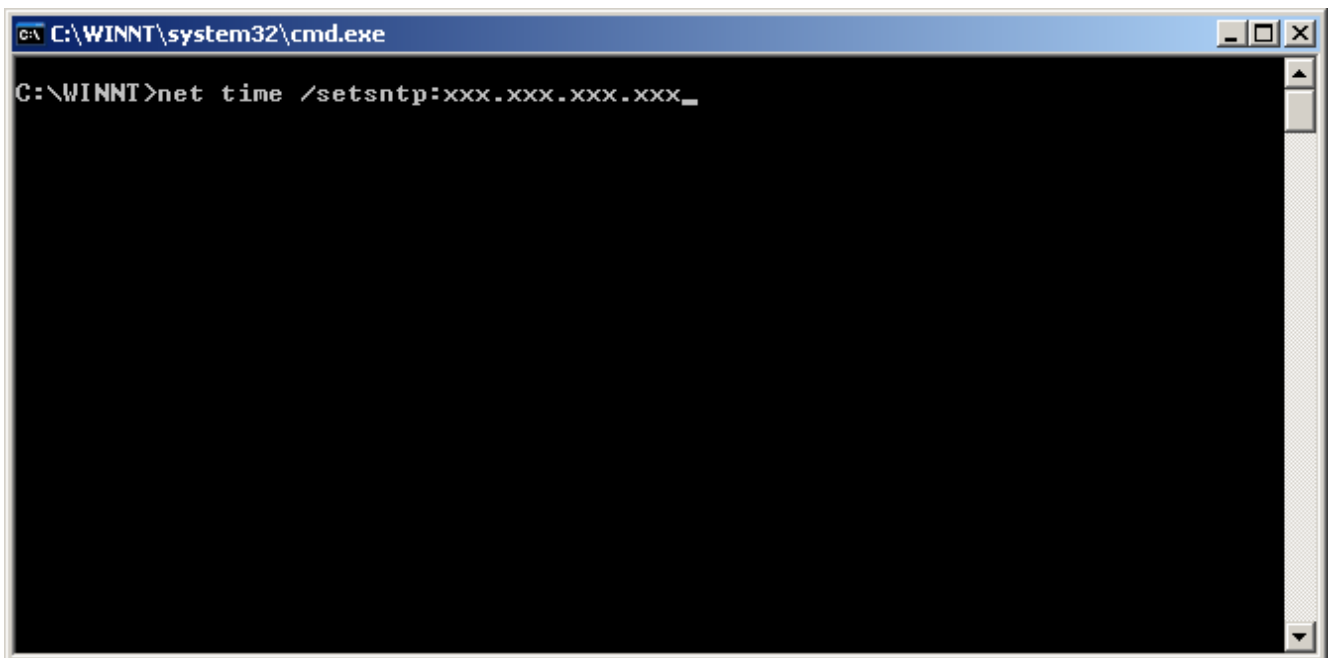
27 Configuration of Windows system settings

27.1 Synchronizing the time with an NTP server

An NTP server always provides the current time. This is a cyclical synchronization method, i.e. the time is updated at regular intervals.

In order to synchronize the time of the SISTORE unit or client PC with an NTP server, the IP address of the NTP server must be specified.

1. Select **Start > Programs > Accessories > Command Prompt** in the Windows start menu.
→ The **command prompt** is opened.



2. Enter the following command:
net time /setsntp:xxx.xxx.xxx.xxx
Enter the IP address of the NTP Server for xxx.xxx.xxx.xxx.

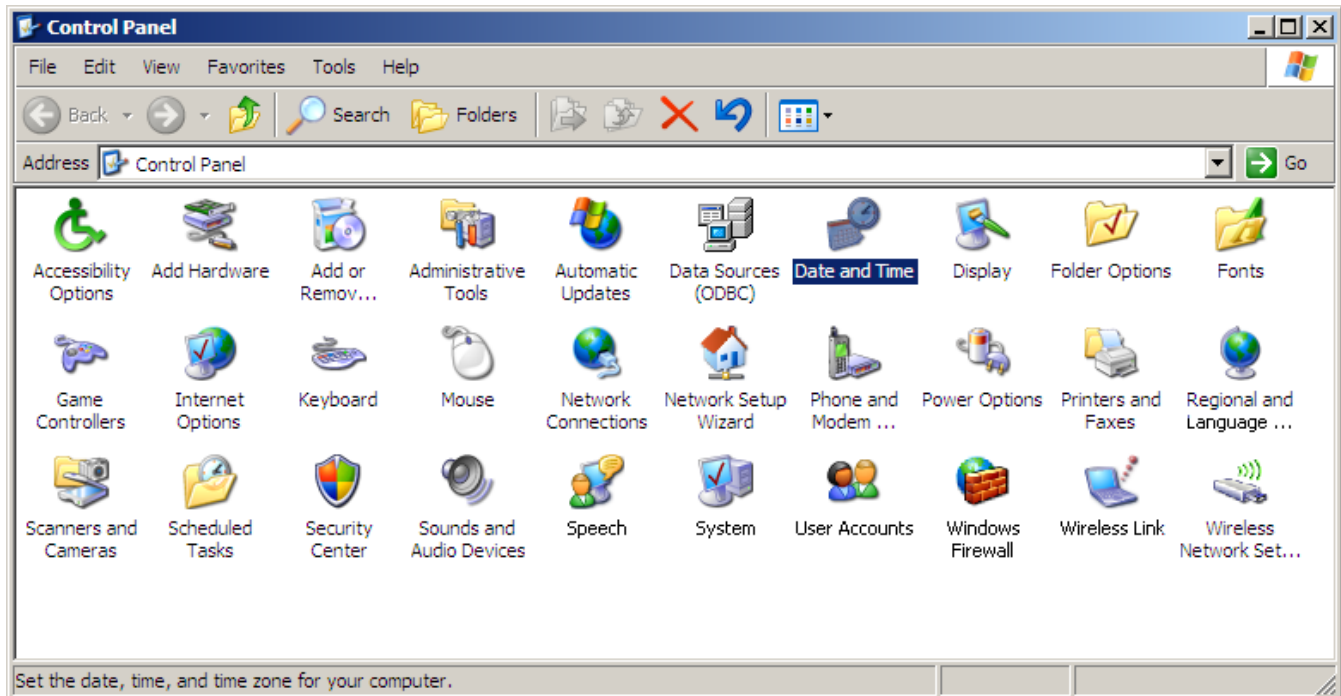


The IP address of an appropriate server can be found in the Internet or you can contact your system administrator.

3. Restart the SISTORE unit or your client PC or enter the following command in the command prompt:
net stop w32time
net start w32time

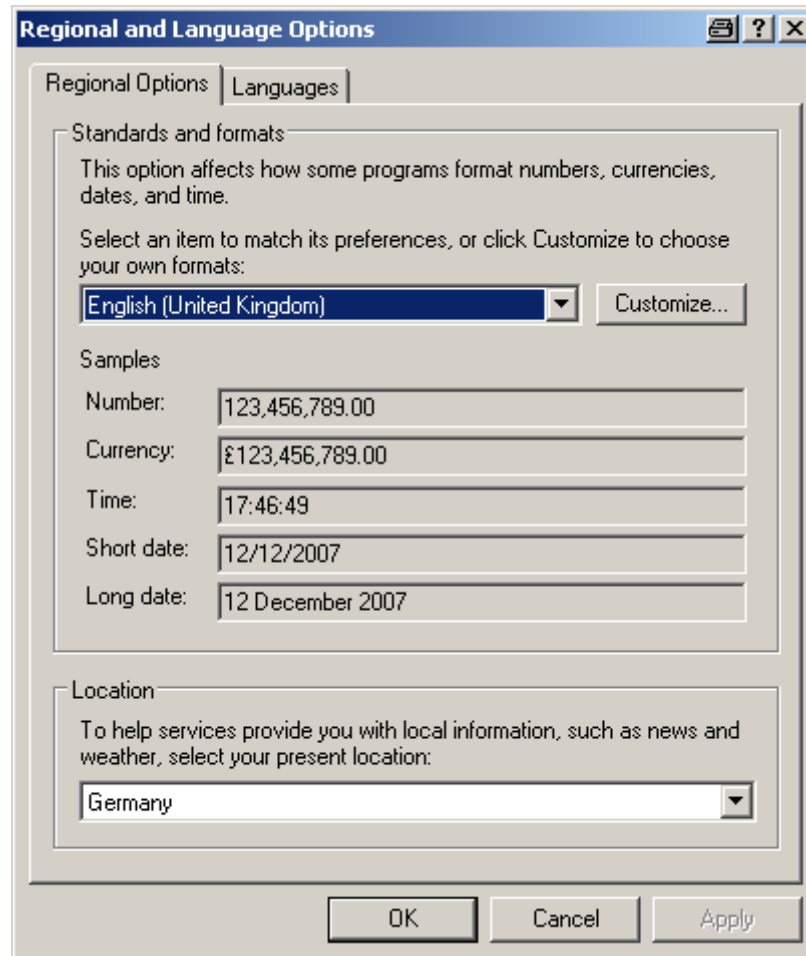
27.2 Changing the language version in Windows XP

1. Click the Windows **Start** menu.
2. Select **Settings** -> **Control Panel**.
→ The following dialog box opens.



3. Click **Date, Time, Regional and Language Options**.
→ The **Date, Time, Regional and Language Options** window will open.
4. Click **Regional and Language Options**.

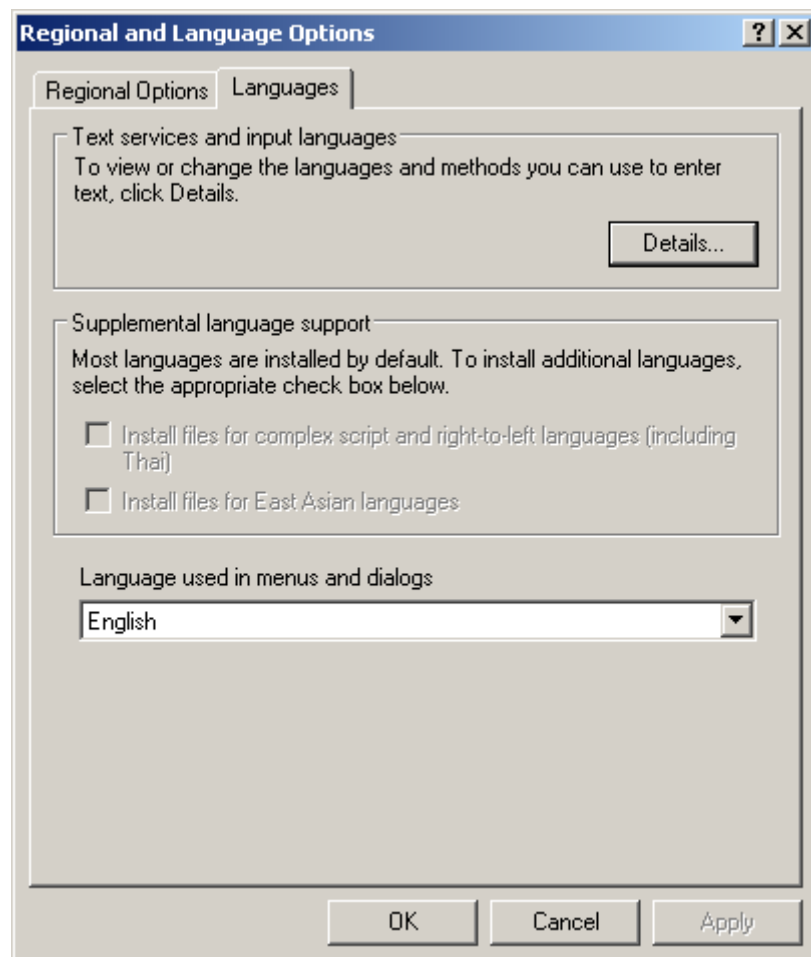
→ The following dialog box opens.



5. Select the **Regional Options** tab.
6. Make the following settings on the tab:

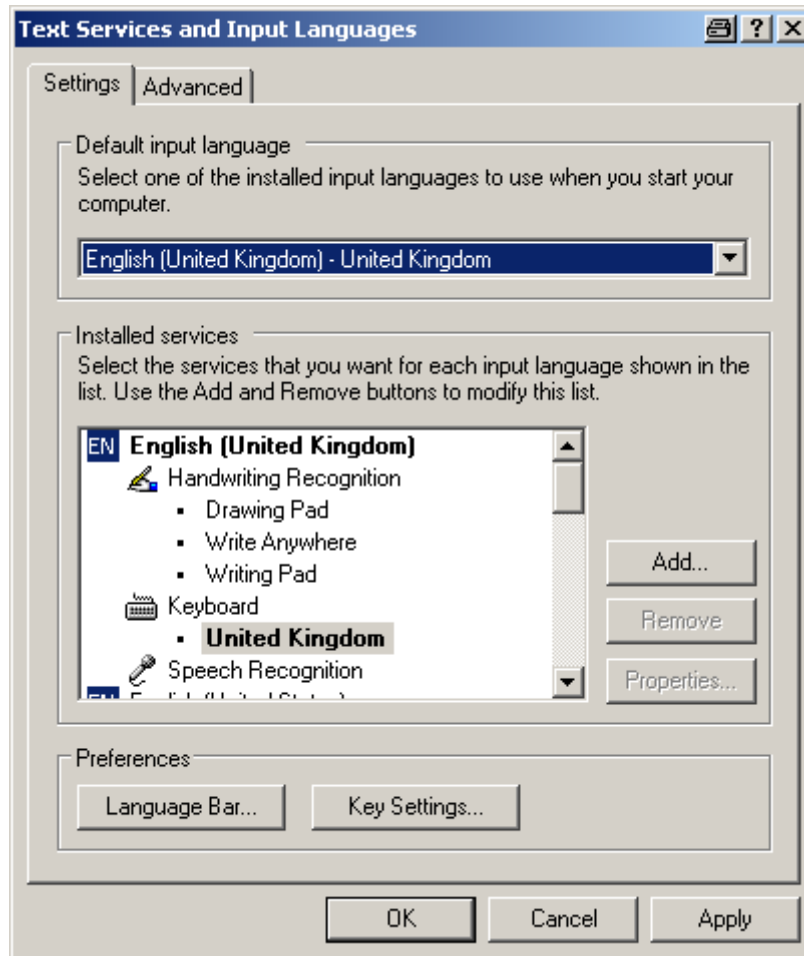
Standards and formats	English (United Kingdom)
Location	Germany

7. Click **Apply**.
8. Select the **Languages** tab.



9. Click **Details....**

→ The following dialog box opens.



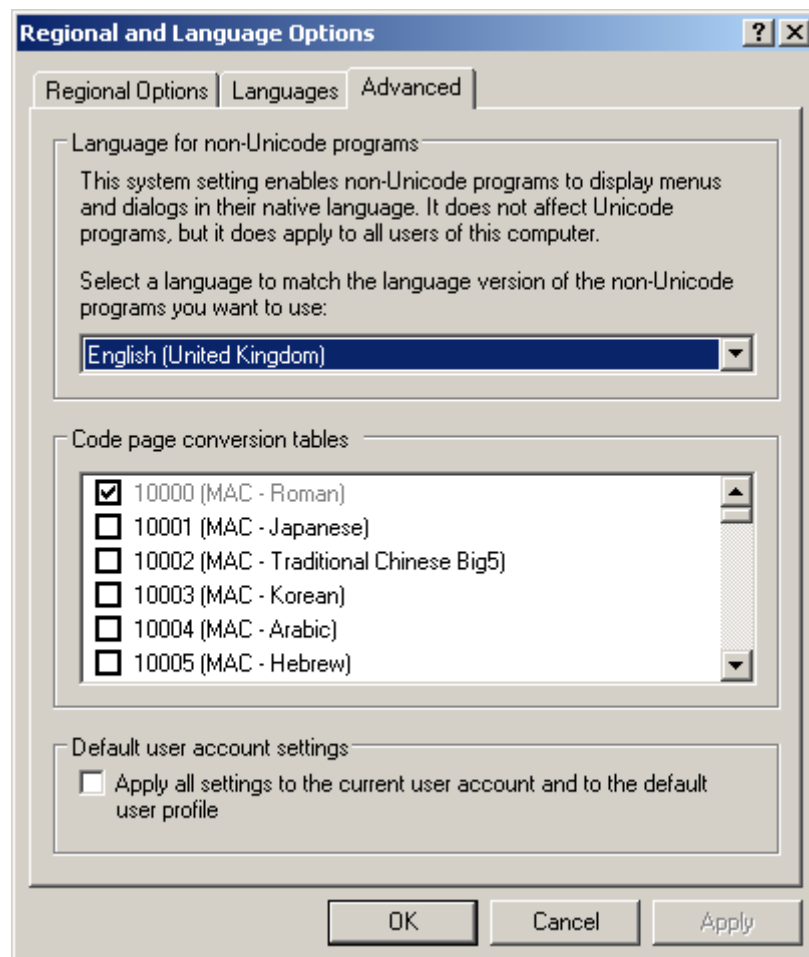
10. Make the following settings on the **Settings** tab:

Default input language	English (United Kingdom)
------------------------	--------------------------

11. Click **Apply**.

12. Click **OK**.

13. Select the **Advanced** tab.



14. Make the following settings on the **Advanced** tab:

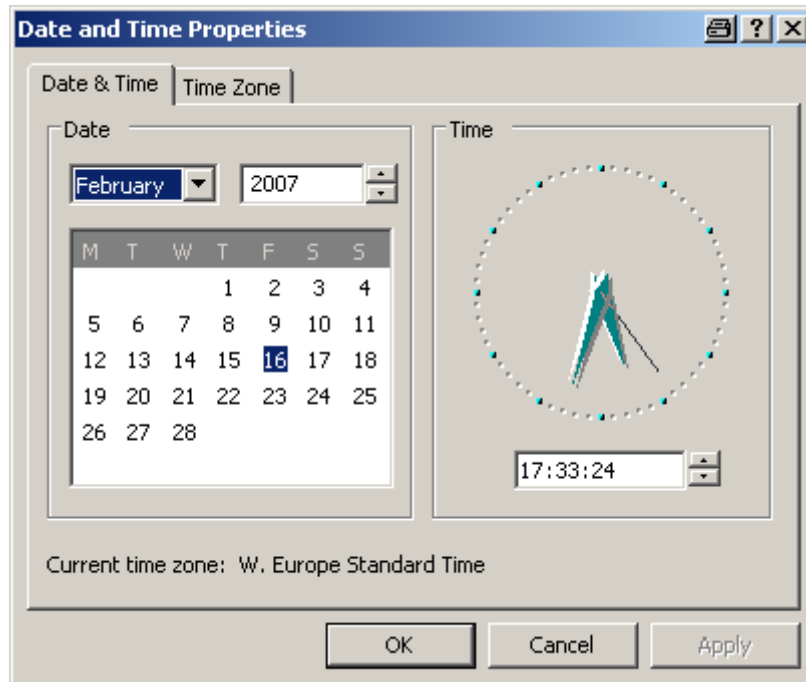
Language for non-Unicode programs	German (Germany)
-----------------------------------	------------------

15. Click **Apply**.
 16. Click **OK**.
 → The system will restart.

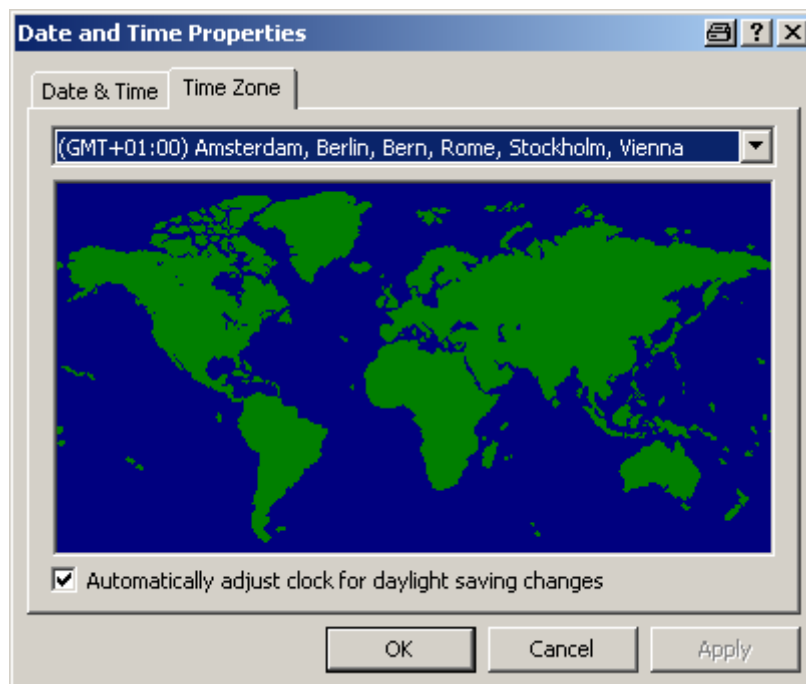
27.3 Setting the time zone

1. Click the Windows **Start** menu.
2. Select **Settings -> Control Panel**.
 → The **Control Panel** window will open.
3. Click **Date and Time**.

→ The following dialog box opens.



4. Select the **Time Zone** tab.



5. Select the desired time zone.
6. Mark the checkbox **Automatically adjust clock for daylight saving changes**.
7. Click **Apply**.
8. Click **OK**.

→ The settings have been saved.

28 Disposal



All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.

This crossed-out wheeled bin symbol on the product means the product is covered by the European Directive 2002/96/EC.

The correct disposal and separate collection of your old appliance will help prevent potential negative consequences for the environment and human health. It is a precondition for reuse and recycling of used electrical and electronic equipment. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

29 Appendix

29.1 Video formats supported

The image files created by SISTORE MX have the file extension ".k26" or ".avi", depending on the setting. These are files in a format similar to AVI, though the k26 files can only be viewed with the SISTORE Player. The AVI files can be played back with any ordinary media player if an appropriate CODEC is installed in the operating system.

The recordings have a resolution of 352 x 288 pixels (CIF) for normal picture quality, 704 x 288 pixels (2CIF) for high picture quality, and 704 x 576 pixels (4CIF) for maximum picture quality (SISTORE MX 3G only). See Section 17.2.1 Selecting video resolution.

Data volume per image / compression

CIF	10 – 40 kB/frame
2CIF	20 – 80 kB/frame
4CIF	40 – 120 kB/frame (SISTORE MX 3G only)

29.2 Bandwidth calculation examples

29.2.1 Analog cameras



- The measurements were performed with SISTORE MX V2.70 and SISTORE RemoteView 2.70.
- All the cameras were configured identically for long-time recording.
- All the cameras configured on the server were connected to SISTORE RemoteView. The server was always in display mode while recording was in progress. The live images of the connected cameras were displayed on the SISTORE RemoteView.
- During the tests with analog cameras no LAN cameras were configured on the server.

29.2.1.1 MJPEG transmission to SISTORE RemoteView

Limit Remote Frame Rate	1 camera connected to SISTORE RV				4 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording								
10	6.2	166	7.5	1	2.2	265	11	2
25	12.5	330	10	2	4.3	503	13	3
50	12.5	330	10	2	6.75	778	18	6
100	12.5	333	10	2	12.5	1459	26	12
w/o	12.5	335	10	2	12.5	1459	26	12
2CIF (704 x 288) 50 KB/image set for recording								
10	6.2	166	8.5	1	2.2	263	11	2
25	12.5	330	10	2	4.3	503	14	4
50	12.5	330	10	2	6.75	785	18	6
100	12.5	330	10	2	12.5	1468	26	12
w/o	12.5	331	10	2	12.5	1459	26	12

Tab. 6 SISTORE MX 4/50 – 12.5 ips/camera

Limit Remote Frame Rate	1 camera connected to SISTORE RV				4 cameras connected to SISTORE RV				8 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording												
10	6.25	166	7.5	1.3	2.1	255	9	2	1.2	288	10.5	2.3
25	6.25	164	7.5	1.3	3.4	411	11	3.3	2.4	558	13.5	4.5
50	6.25	164	8	1.3	6.25	756	15.5	5.8	3.4	795	17.5	6
100	6.25	164	7.5	1.3	6.25	761	15.5	5.8	6.25	1440	25.5	11
w/o	6.25	164	7.5	1.3	6.25	761	15.5	5.8	6.25	1456	25	11
2CIF (704 x 288) 50 KB/image set for recording												
10	6.25	162	8.5	1.3	2.1	253	10	2	1.2	286	11	2.3
25	6.25	162	9.5	1.3	3.4	410	12	3.3	2.4	558	14.5	4.5
50	6.25	166	8	1.3	6.25	760	15.5	5.8	3.4	796	17.5	6
100	6.25	163	8.5	1.3	6.25	761	16.5	5.8	6.25	1450	26	11
w/o	6.25	169	8.5	1.3	6.25	760	16.5	5.8	6.25	1456	25.5	11

Tab. 7 SISTORE MX 8/50 – 6.2 ips/camera

Limit Remote Frame Rate	1 camera connected to SISTORE RV				4 cameras connected to SISTORE RV				9 cameras connected to SISTORE RV				16 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording																
10	3.1	82	7	0.7	1.6	191	8.5	1.5	1	278	10	2.5	0.6	295	11	2.5
25	3.1	82	8	0.7	3.1	375	10.5	2.5	1.6	426	12	3	1.4	720	15	5
50	3.1	82	7	0.7	3.1	368	10.5	2.5	3.1	817	17	6	1.7	866	18	7
100	3.1	84	6.5	0.7	3.1	371	11	2.5	3.1	835	16.5	6	3.1	1546	25.5	12

Limit Remote Frame Rate	1 camera connected to SISTORE RV				4 cameras connected to SISTORE RV				9 cameras connected to SISTORE RV				16 cameras connected to SISTORE RV			
w/o	3.1	83	6.5	0.7	3.1	372	11	2.5	3.1	830	17	6	3.1	1533	25.5	12
2CIF (704 x 288) 50 KB/image set for recording																
10	3.1	82	7	0.7	1.6	188	10	1.5	1	280	11	2.5	0.6	296	11	2.5
25	3.1	82	7.5	0.7	3.1	372	11.5	2.5	1.6	422	12.5	3	1.4	720	16	5
50	3.1	82	7.5	0.7	3.1	369	11.5	2.5	3.1	817	18	6	1.7	890	19	7
100	3.1	83	8	0.7	3.1	368	11.5	2.5	3.1	826	17,8	6	3.1	1545	27	12
w/o	3.1	84	8	0.7	3.1	375	11	2.5	3.1	835	18	6	3.1	1559	27	12

Tab. 8 SISTORE MX 16/50 – 3.1 ips/camera

Limit Remote Frame Rate	1 camera connected to SISTORE RV				4 cameras connected to SISTORE RV				9 cameras connected to SISTORE RV				16 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording																
10	6.2	133	12	1	2.1	176	13	1	1	203	14	1	0.6	230	15	2
25	6.2	129	12	1	3.4	280	15	2	2.1	404	16	3	1.4	550	18	4
50	6.2	130	12	1	6.2	520	17	4	3.1	605	19	5	2.4	900	24	7
100	6.2	131	11	1	6.2	521	17	4	6.2	1200	27	10	3.4	1280	28	11
w/o	6.2	130	12	1	6.2	521	17	4	6.2	1210	27	10	6.2	2372	41	19
2CIF (704 x 288) 50 KB/image set for recording																
10	6.2	131	13	1	2.1	175	14	1	1	201	16	1	0.6	230	17	2
25	6.2	129	13	1	3.4	280	15	2	2.1	402	19	3	1.4	542	20	4
50	6.2	130	13	1	6.2	519	19	4	3.1	603	21	5	2.4	900	26	7
100	6.2	130	13	1	6.2	519	20	4	6.2	1207	29	10	3.4	1280	31	11
w/o	6.2	130	13	1	6.2	521	19	4	6.2	1208	29	10	6.2	2356	44	19

Tab. 9 SISTORE MX 32/100 – 6.2 ips/camera

Limit Remote Frame Rate	4 cameras connected to SISTORE RV				9 cameras connected to SISTORE RV				16 cameras connected to SISTORE RV				32 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording																
10	1.6	138	13	1	1	210	13	1	0.6	225	13	2	0.3	260	15	2
25	3.1	268	13	2	1.6	308	15	2	1.4	541	16	4	0.7	646	18	5
50	3.1	270	13	2	3.1	610	17	5	1.7	645	18	5	1.4	1225	21	10
100	3.1	264	13	2	3.1	610	18	5	3.1	1170	25	10	1.7	1480	29	12
w/o	3.1	264	14	2	3.1	611	19	5	3.1	1177	26	10	3.1	2729	43	22
2CIF (704 x 288) 50 KB/image set for recording																
10	1.6	139	14	1	1	210	14	1	0.6	222	16	2	0.3	260	18	2
25	3.1	268	15	2	1.6	314	16	2	1.4	541	18	5	0.7	645	20	5
50	3.1	268	15	2	3.1	617	20	5	1.7	640	21	5	1.4	1220	23	10
100	3.1	264	15	2	3.1	610	20	5	3.1	1170	27	10	1.7	1485	31	12
w/o	3.1	263	15	2	3.1	608	20	5	3.1	1188	28	10	3.1	2728	46	22

Tab. 10 SISTORE MX 32/100 – 3.1 ips/camera

29.2.1.2 MPEG transmission to SISTORE RemoteView

Limit Remote Frame Rate	1 camera connected to SISTORE RV				4 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording								
10	6.2	45	11	0.4	2.2	68	16	0.6
25	12.5	102	19	0.9	4.3	137	25	1
50	12.5	104	18	0.9	6.7	206	34	1.6
100	12.5	107	19	0.9	12.5	392	56	3
w/o	12.5	105.5	18	0.9	12.5	384	56	3
2CIF (704 x 288) 50 KB/image set for recording								
10	6.2	46	13	0.4	2.2	75	18	0.6
25	12.5	103	19	0.9	4.3	134	25	1
50	12.5	102	19	0.9	6.7	209	34	1.6
100	12.5	102	18.5	0.9	12.5	385	57	3
w/o	12.5	101	19	0.9	12.5	384	56.5	3

Tab. 11 SISTORE MX 4/50 – 12.5 ips/camera

Limit Remote Frame Rate	1 camera connected to SISTORE RV				4 cameras connected to SISTORE RV				8 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording												
10	6.25	45	11	0.35	2.1	63	14	0.5	1.2	61.5	16	0.5
25	6.25	44	11	0.35	3.4	102	20	0.8	2.4	115	24	0.9
50	6.25	44	12	0.35	6.25	187	30	1.5	3.4	157	30	1.2
100	6.25	44	11	0.35	6.25	188	30	1.5	6.25	304	50	2.5
w/o	6.25	49	11	0.35	6.25	186	30	1.5	6.25	292	50	2.5
2CIF (704 x 288) 50 KB/image set for recording												
10	6.25	44	11.5	0.35	2.1	62	15	0.5	1.2	62	16	0.5
25	6.25	44.5	11.5	0.35	3.4	102	20	0.8	2.4	112	25	0.9
50	6.25	44.5	12.5	0.35	6.25	187	31	1.5	3.4	157	30	1.2
100	6.25	45	12	0.35	6.25	189	31	1.5	6.25	304	50	2.5
w/o	6.25	45	12	0.35	6.25	189	31.5	1.5	6.25	315	52	2.5

Tab. 12 SISTORE MX 8/50 – 6.2 ips/camera

Limit Remote Frame Rate	1 camera connected to SISTORE RV				4 cameras connected to SISTORE RV				9 cameras connected to SISTORE RV				16 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording																
10	3.1	22	8.5	0.2	1.6	50	12	0.35	1	58	15	0.5	0.6	58	15.5	0.5
25	3.1	23	8.5	0.2	3.1	92	18	0.7	1.6	93	19	0.7	1.4	125	26	1
50	3.1	23	8.5	0.2	3.1	92	18.5	0.7	3.1	170	31	1.3	1.7	144	29.5	1.2
100	3.1	22.5	9	0.2	3.1	99	18	0.8	3.1	181	31	1.5	3.1	261	47	2.2
w/o	3.1	23	8.5	0.2	3.1	96	18	0.7	3.1	181	31	1.5	3.1	272	47	2.2
2CIF (704 x 288) 50 KB/image set for recording																
10	3.1	22.5	9.5	0.2	1.6	48	13	0.35	1	58	16	0.5	0.6	60	16.5	0.5
25	3.1	23	9	0.2	3.1	94	19	0.7	1.6	87	20	0.7	1.4	125	26.5	1
50	3.1	23.5	9	0.2	3.1	92	19	0.7	3.1	172	32	1.3	1.8	157	31	1.2
100	3.1	23	9.5	0.2	3.1	95	18.5	0.8	3.1	177	31	1.5	3.1	270	48	2.2
w/o	3.1	24	9.5	0.2	3.1	96	20	0.8	3.1	179	32	1.5	3.1	272	48	2.2

Tab. 13 SISTORE MX 16/50 – 3.1 ips/camera

Limit Remote Frame Rate	1 camera connected to SISTORE RV				4 cameras connected to SISTORE RV				9 cameras connected to SISTORE RV				16 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording																
10	6.2	19	13	0.15	2.1	26	15	0.25	1	32	17	0.3	0.6	41	19	0.4
25	6.2	21	13	0.15	3.4	49	19	0.5	2.1	67	22	0.5	1.4	100	28	0.8
50	6.2	20	13	0.15	6.2	79	25	0.7	3.1	94	28	0.8	2.4	151	36	1
100	6.2	20	13	0.15	6.2	84	25	0.7	6.2	176	44	1	3.4	205	45	1
w/o	6.2	19	13	0.15	6.2	80	25	0.6	6.2	178	45	1	6.2	360	75	2
2CIF (704 x 288) 50 KB/image set for recording																
10					2.1	26	16	0.2	1	33	19	0.3	0.6	42	19	0.4
25	6.2	19	15	0.16	3.4	41	20	0.35	2.1	62	24	0.5	1.4	93	29	0.8
50	6.2	21	15	0.16	6.2	79	26	0.7	3.1	95	30	0.8	2.4	145	38	1
100	6.2	20	15	0.16	6.2	81	26	0.7	6.2	183	46	1	3.4	214	47	1
w/o	6.2	20	15	0.16	6.2	81	26	0.6	6.2	178	46	1	6.2	360	75	2

Tab. 14 SISTORE MX 32/100 – 6.2 ips/camera

Limit Remote Frame Rate	4 cameras connected to SISTORE RV				9 cameras connected to SISTORE RV				16 cameras connected to SISTORE RV				32 cameras connected to SISTORE RV			
	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288) 25 KB/image set for recording																
10	1.6	20	14	0.15	1	38	17	0.3	0.6	39	17	0.3	0.3	66	21	0.4
25	3.1	39	17	0.3	1.6	51	19	0.4	1.4	95	24	0.8	0.7	170	30	1
50	3.1	40	17	0.35	3.1	93	28	0.8	1.7	113	28	1	1.4	310	44	2
100	3.1	38	17	0.3	3.1	88	27	0.7	3.1	186	41	1	1.7	352	53	2.5
w/o	3.1	38	17	0.3	3.1	86	28	0.7	3.1	184	42	1	3.1	628	84	5
2CIF (704 x 288) 50 KB/image set for recording																
10	1.6	20	15	0.15	1	32	18	0.3	0.6	41	19	0.3	0.3	68	22	0.4
25	3.1	42	18	0.3	1.6	50	20	0.4	1.4	90	26	0.8	0.7	161	30	1
50	3.1	36	19	0.32	3.1	85	29	0.7	1.7	110	30	0.9	1.4	302	45	2
100	3.1	36	19	0.3	3.1	85	28	0.7	3.1	188	43	1	1.7	358	54	2.5
w/o	3.1	35	20	0.3	3.1	84	29	0.7	3.1	178	43	1	3.1	630	86	5

Tab. 15 SISTORE MX 32/100 – 3.1 ips/camera

29.2.2 LAN cameras



- The measurements were performed with SISTORE MX V2.80 and SISTORE RemoteView 2.80.
- All measurements were performed using Siemens LAN cameras type CCIX1345. All the cameras were configured identically for long-time recording.
- Only cameras that had been configured were connected to the network.
- All the cameras configured on the server were connected to SISTORE RemoteView. The server was always in display mode while recording was in progress. The live images of the connected cameras were displayed on the SISTORE RemoteView.
- During the tests with LAN cameras no analog cameras were configured on the server.

29.2.2.1 MJPEG transmission to SISTORE RemoteView

Limit Remote Frame Rate	1 camera configured on the server and connected to SISTORE RV						2 cameras configured on the server and connected to SISTORE RV						5 cameras configured on the server and connected to SISTORE RV					
	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288)																		
100	6	425	605	220	10	5	4	623	791	182	13	5	1	1972	2016	92	29	16
4CIF (704 x 576)																		
100	12	828	1187	365	26	10	4	1338	1486	188	38	12	1	3952	3858	98	83	31

Tab. 16 SISTORE MX 32/100 – 12 ips/camera

SISTORE MX NVS



NVS PC: Microsoft Windows XP Professional SP 3; Intel Xeon CPU 5150 @ 2.66 GHz 2.66 GHz; 3.00 GB RAM

Limit Remote Frame Rate	1 camera configured on the server and connected to SISTORE RV						5 cameras configured on the server and connected to SISTORE RV					
	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288)												
1000	12	409	692	284	3	5	12	2033	3542	1560	18	28
4CIF (704 x 576)												
1000	12	822	1108	296	9	8	12	4210	5906	1713	50	46

Tab. 17 SISTORE MX NVS – 12 ips/camera

29.2.2.2 MPEG transmission to SISTORE RemoteView

Limit Remote Frame Rate	1 camera configured on the server and connected to SISTORE RV						2 cameras configured on the server and connected to SISTORE RV						5 cameras configured on the server and connected to SISTORE RV					
	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288)																		
100	11	410	510	108	16	4	8	651	717	103	22	6	1	1933	2070	98	35	17
4CIF (704 x 576)																		
100	12	828	960	140	34	7	9	1335	1429	112	54	11	2	3824	3442	94	82	41

Tab. 18 SISTORE MX 32/100 – 12 ips/camera

SISTORE MX NVS



NVS PC: Microsoft Windows XP Professional SP 3; Intel Xeon CPU 5150 @ 2.66 GHz 2.66 GHz; 3.00 GB RAM

Limit Remote Frame Rate	1 camera configured on the server and connected to SISTORE RV						5 cameras configured on the server and connected to SISTORE RV					
	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)	ips/camera (RV)	Bandwidth in KB/s (Server w/o RV)	Bandwidth in KB/s (Server with RV)	KB/s transmitted (Server to RV)	Ø processor load in % (Server)	Ø network load in % (Server)
CIF (352 x 288)												
1000	12	409	516	111	5	4	12	2011	2508	546	28	20
4CIF (704 x 576)												
1000	12	799	802	59	9	7	12	4262	4691	511	59	36

Tab. 19 SISTORE MX NVS – 12 ips/camera

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