SIEMENS


# SISTORE MX

# Hybrid Video Recorder

## User Manual

Version 2.70 and higher

**Building Technologies**

Fire Safety & Security Products

## About this document

This document contains instructions for the operation and configuration of SISTORE MX, SISTORE MX RemoteView and SISTORE Player. The SISTORE MX unit is operated using the SISTORE MX application software.

Instructions for installation and setup and technical specifications can be found in the SISTORE MX Installation Manual.

A complete version of this manual can be found in Adobe Acrobat format (PDF) on the SISTORE MX CD. This is the most recent version. All subsequent alterations have been included as far as possible.

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## Contacting us

If you have questions or suggestions regarding the product or this documentation, please contact your local SIEMENS representative. You can also visit our website at http://www.sbt.siemens.com/FSP

# Contents

# 1 Description of functions

SISTORE MX is a hybrid video recording system for the surveillance of rooms, premises, buildings, production workshops, critical public areas or any outdoor areas where security is important.

SISTORE MX offers the following functions:

– Simultaneous recording of up to 64 cameras, depending on the model

– Simultaneous display of all cameras for live surveillance at the same time as recording

SISTORE MX easily adapts to your application, both with regard to your various different alarm triggers such as for instance cameras, light barriers etc., and also in case of alarms to control your various external devices such as for instance sirens, alarm systems, lighting etc.

By defining different alarm configurations, you also have the opportunity to adjust the video recording to the actual surveillance task in question and thereby maximise the performance of your system.

In addition, SISTORE MX possesses a user administration function. By issuing different user rights, it allows for each user to have access to certain functions on an individual basis according to his/her range of tasks; such access may also be denied to others.

The delivery includes, free of charge, the SISTORE Player program in addition to the SISTORE MX program itself. SISTORE Player gives you the capability to replay video recordings or exported AVI sequences.

The delivery also includes SISTORE MX RemoteView. Using SISTORE RemoteView, you have the opportunity to remote access (via LAN or ISDN) the system in order to revise the recorded videos and to watch camera pictures live. Here SISTORE MX RemoteView functions as a client accessing a SISTORE MX server. When operating SISTORE MX with separate hard disks, SISTORE MX RemoteView enables you to carry out local playback on an external PC.

# 2 Safety

## 2.1 Target readers

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

| Reader group | Qualification | Activity | Condition of the product |
|---|---|---|---|
| Operator | Has read and understood the instructions in the documentation regarding operation. No particular basic training is required, although some instruction by technical specialists may be necessary. | Performs only the procedures for proper operation of the product, device or system. | The product is installed and set up. |
| Service personnel | Technical training for building or electrical installations. | Checks the product at regular intervals to ensure that it is in good working order, services the product and repairs it. | Product already in use and requiring servicing. |

## 2.2 Work safety information

- Read the general safety precautions before operating the device.
- Follow all warnings and instructions marked on the device.
- Keep this document for reference.
- Always pass this document on together with the product.

**Burn hazard**

- Do not touch the housing of the device while it is in operation.

**National standards**

The products are developed and manufactured according to all applicable European safety standards. Any national or local safety standards or laws that apply to the development, design, installation, operation or disposal of a product must be adhered to in addition to the instructions in the product documentation.

**Electrical systems**

| | |
|---|---|
| **DANGER** | Work on electrical systems should only be performed by trained personnel under the supervision of a certified electrician in accordance with the appropriate regulations. |

- Disconnect main control systems from the main power supply before performing maintenance or repair.
- Check that no voltage is present on components that have been isolated from the main power supply in this way.
- Use only insulated tools!
- Terminals carrying an external voltage supply must be labelled “DANGER – external voltage”.
- Power cables to the main device are to be run separately and have a dedicated, clearly labelled fuse.
- Electrical grounding must meet the customary local safety regulations.
- Battery connections must never be short-circuited and contact with the housing must be avoided in all cases.
- The appropriate safety measures must be observed when working in explosion hazard zones.

**Installation and setup**

- If auxiliary equipment such as a ladder is required for the installation, safe equipment appropriate to the task in hand must be used.
- If devices from third-party firms are to be operated, the responsible person must be present.

**Changes to the product**

Changes to the product and the way it is installed require written permission from Siemens and the local safety agencies responsible for the site where the device is in operation.

**Components and spare parts**

Installed components and spare parts must meet the technical specifications of the manufacturer. The manufacturer’s original spare parts are guaranteed to do so.

Only fuses with the specified characteristics are to be used.

**Condition while the system is in use:**

Temperature: 5 to 35 °C.

Please avoid direct sun and shock.

### Disregarding safety regulations

The products are designed for proper use and are checked before delivery to ensure that they are in good working order. Siemens assumes no liability whatsoever for damages or bodily injuries resulting from misuse or disregard of the instructions or hazard information in the documentation.

This applies especially in the case of

- Personal injury or damage resulting from improper use and/or use for purposes other than those for which the product is intended
- Personal injury or damage resulting from non-observance of the safety information in the documentation or on the product (labelling).
- Personal injury or damages as a consequence of inadequate maintenance or failure to perform maintenance.

### Conventions

When used for operation according to the UVV (accident prevention regulations for banks), the SISTORE MX must be installed and configured with observance of BGI 819-7 (installation guidelines for optical room surveillance systems).

### Important information for observance of "BGI 819-7" guideline

- It is not permissible to hide all cameras; this particularly applies to those in the counter area.
- Work on the system which interferes with recording may only be carried out when there is no business at the cash desks, i.e. outside opening hours or immediately after a holdup.
- A customized system using Microsoft Windows is used for digital image recording. This system is only available for the SISTORE MX application software; it cannot be used for other Windows applications.
- To prevent data losses due to power failure, the device should have a self-contained power supply.
- Performance testing and troubleshooting must be carried out with observance of BGI 819-7 (testing of optical room surveillance systems).

## 2.3 Meaning of the written warning notices

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

| Signal word | Type of risk |
|---|---|
| **DANGER** | Dangerous situation<br>Death or severe bodily injury may result. |
| **CAUTION** | Dangerous situation<br>Severe bodily injury may result. |
| **WARNING** | A dangerous situation can occur<br>Minor injuries may result. |
| **NOTE** | Technical or operating information<br>Disregarding this information may lead to damage to the product or property in the product's vicinity. |

## 2.4 Meaning of the hazard symbols

The nature of the hazard is indicated by icons.

**Dangerous situation**

**Electrical voltage**

**External voltage**
Ground the component before making contact.

**Tips and information**


**Important operating step or action**
For example: the system, components or controls must be at zero potential.

# 3 Directives and standards

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the Instruction Manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

**CAUTION**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This class of digital apparatus meets all requirements of the Canadian interference-causing equipment regulations.

### National standards

The products are developed and manufactured according to all applicable European safety standards. Any national or local safety standards or laws that apply to the development, design, installation, operation or disposal of a product must be adhered to in addition to the instructions in the product documentation.

# 4 Technical data

| SISTORE MX 3204 | SISTORE MX 3208 - 3232 |
|---|---|
| with 4 video inputs | with 8, 16 or 32 video inputs |

| | SISTORE MX 3204 | SISTORE MX 3208 - 3232 |
|---|---|---|
| Recording speed - analog | max. 50 images per second, configurable for analogue cameras | max. 100 images per second, configurable for analogue cameras |
| Recording speed - digital | max. 100 images per second, configurable for max. 32 LAN cameras | |
| Video inputs | 4 x CCVS (BNC sockets) enabled, 1 $V_{pp}$/75 Ohm, max. 32 LAN cameras | 8/16/32 x CCVS (BNC sockets) enabled, 1 $V_{pp}$/75 Ohm, max. 32 LAN cameras |
| 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:<br>● alarm contacts<br>● motion detection<br>● Time control<br>● TCP/IP command | |
| Alarm signalling | via monitor connection, digital output, LAN/WAN to RemoteView station | |
| Digital inputs | 4 for AND operations and system control<br>Uin: 5 – 24 V, max. 10 mA | 8 for AND operations and system control<br>$U_{in}$: 5 – 24 V, max. 10 mA |
| Digital outputs | 8 alarm/key outputs, configurable switching (rising or falling edge duration)<br>$U_{out}$ 5 – 24 V, max. 50 mA | 16 alarm/key outputs, configurable switching (rising or falling edge duration)<br>$U_{out}$ 5 – 24 V, max. 50 mA |
| Interfaces | 2 x 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, PC keyboard | mouse with USB connection, virtual keyboard activated, USB keyboard (optional) | |
| Video standard | PAL/NTSC | |
| Resolution | standard: 352 x 288 pixels,<br>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 | |

| | **SISTORE MX 3204** | **SISTORE MX 3208 - 3232** |
|---|---|---|
| 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 | |
| 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 | |

# 5 Details for ordering

**As of Q2 2007 SISTORE MX is available in seven models:**

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

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

**SISTORE MX accessories (not included in the delivery):**

| Type | Part 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 |

| | | | |
|---|---|---|---|
| Software update to on SISTORE MX memory stick | S24245-P5097-A5 | The memory stick can be used directly on the USB interface for the update | ./. |
| 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 |
| 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 |
| 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) | ./. |

The part number will be found on the rating plate on the bottom of the unit.

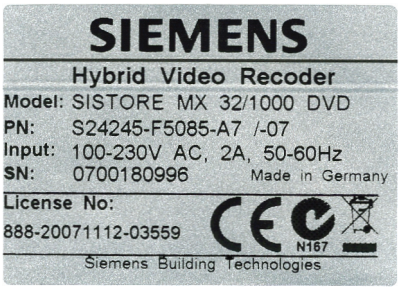



Fig. 1 Rating label

# 6 Scope of delivery

- SISTORE MX
- Mouse
- Mains cable
- 8 x digital I/O connector (SISTORE MX 3204)
- 14 x digital I/O connector (SISTORE MX 3208 - 3232)
- Activation form
- CD with the SISTORE MX application software and complete documentation

# 7 Prerequisites

## 7.1 Hardware requirements

SISTORE MX integrates a video compression board (or frame grabber) that features up to 16 (MX 3204) / 32 (MX 3232 - 3208) video inputs, depending on the model.

| SISTORE MX 3204 | SISTORE MX 3208 - 3232 |
|---|---|
| 4 video inputs | 8, 16, 32 video inputs |

The video data is stored on local hard disks. Saving on optical CD-R/CD-RW odrr DVD-R/DVD-RW drives is possible directly from SISTORE MX (see Section 17.16.2: Burning image sequences to CD/DVD).

## 7.2 Resolution and file format

The files stored by SISTORE MX have the extension .AVI or .k26. The resolution of the stored images is (by using normal resolution) 352 x 288 pixel and (by using high resolution) 704 x 288 pixel.

**NOTE:**
From version 2.35 on, SISTORE MX saves all files as *.k26 files instead of *.avi files. The SISTORE player makes no difference between these two file types. The *.k26 files can however not be reproduced using other movie player models (data protection of the SISTORE MX video files).

The user should therefore always copy the file „SISTOREPlayer.exe“ from the Windows directory (e.g. \Windows) to the target data medium (disk, CD-R/CD-RW, DVD-R/DVD-RW or network drive) using the Windows explorer. This ensures that the exported files can be reproduced using the SISTORE player. Alternatively, since Version 2.45, the data can be stored without data protection as *.avi files which can be played with standard movie player. For detailed information about data protection see Section 17: Playback.

## 7.3 Conversion

As of version 2.35, SISTORE MX automatically converts the configurations of the preceding version to the current version. Nevertheless, we would like to emphasize that you should check your configuration without fail after an update.

**NOTE:**
A conversion of older versions (earlier than version 2.35) is not possible. It is also not possible to take over settings for event-triggered recordings and scenarios from the preceding versions (earlier than version 2.55). These are deleted during the conversion.

# 8 Operating modes

There are three operating modes:

- Display mode
- Playback mode
- Configuration mode

## 8.1 Display mode

After starting SISTORE MX, you will be in display mode. From here, after successful login to the system, it is possible to access the configuration and playback modes, insofar as you have the appropriate user authorisation to do so. “Display mode” is intended for operating or surveillance staff while the system is in operation. The cameras and all incoming events are displayed and recorded here. It is also used for flexible live surveillance of all cameras.

## 8.2 Playback mode

The playback and/or revision of recordings is carried out in this mode. It is based on an extremely high performance database and allows fast and easy tracking of received alarms and their respective video sequences with all relevant additional information. It is also possible to save important pictures in currently used formats or even whole video sequences as “evidence“. Access to the “playback mode” is only possible with the “Playback“ user authorisation.

## 8.3 Configuration mode

All system settings are defined in this mode (please refer to the Configuration Manual). The opportunity exists to issue user authorisations (see Section 11 User rights ). The configuration of the system and the “display mode” as well as the definition of recording modes can be defined here. As recording modes can be chosen:

- **long-time recording** with or without motion detection
- **event-triggered recording** with pre-alarm history and alarm memory.

This ensures that the system can be flexibly adapted to cover the widest possible range of applications. Access to the “configuration mode” is restricted to users with the “Configuration“ authorisation.

# 9 Getting started

## 9.1 Software operation using the virtual keyboard

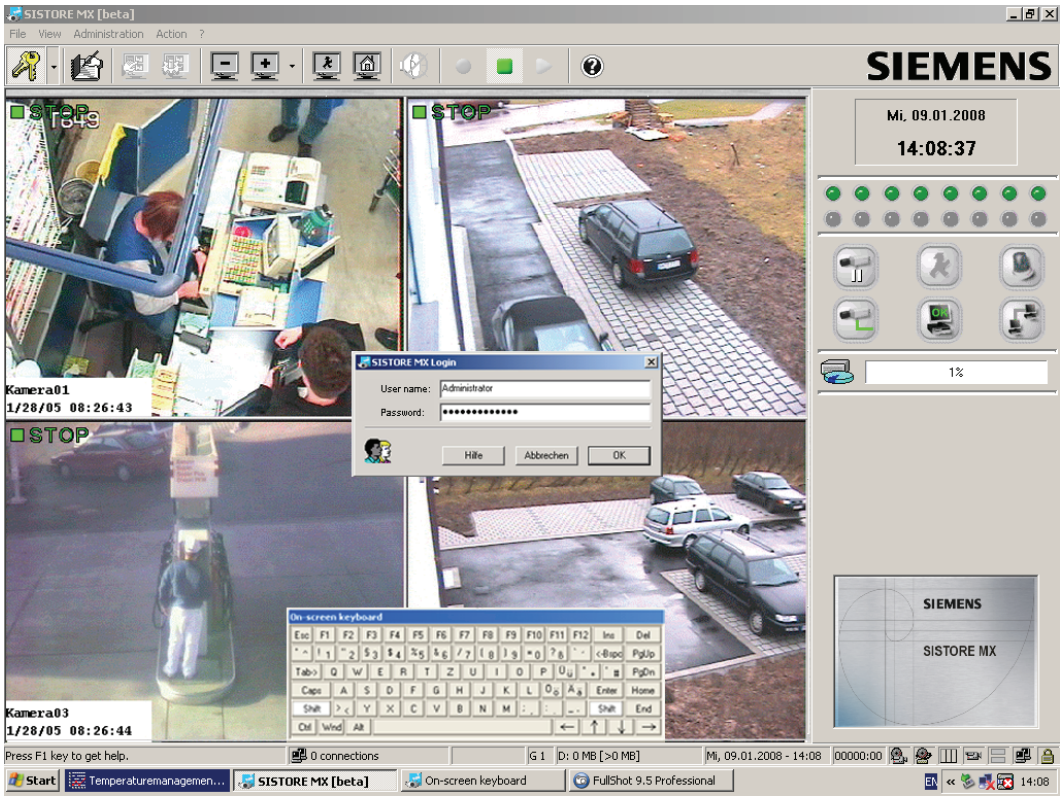



Fig. 2 Password entry using the virtual keyboard

As of Q2 2007 SISTORE MX 32xx is delivered without keyboard. Entry of the characters of the password and parameter setting can be made using the virtual keyboard.

**NOTE**
Alternatively, a USB keyboard is available as an option (see Section 5: Details for ordering).

1. Connect the mouse supplied to a USB port.
2. Switch the device on.
   ➔ The SISTORE MX application software will be started automatically.
3. Click the ***Login*** icon  .
   ➔ The virtual keyboard will appear.
4. Enter the password by clicking the appropriate letters and characters on the virtual keyboard.
5. Click ***OK*** or press the ***Enter*** key.
   ➔ The system is now ready for operation.

**NOTE**
Entries into all other input fields of the system are made in the same manner.

# 9.2 Login

**NOTE:**
Without a successful login only the SISTORE MX online help will be available; all other functions will not be available. Without a successful login it is also not possible to end the program.

Prerequisite

- The SISTORE MX application software has been started.

You have the following options to log into the system:

**1.** Select the menu option **File** -> **Login**.

– OR –

Click the button  in the toolbar.

➔ The following dialog box opens:

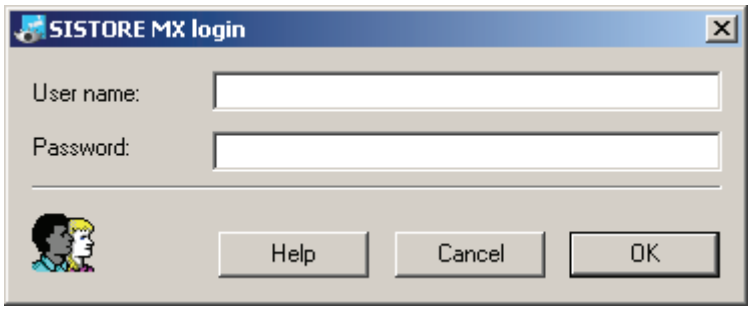



Fig. 3 SISTORE MX login

**2.** Enter your user name and password in the appropriate text fields.

**NOTE**
Your user name and password will be created for you by your administrator. The entry of user name and password is case-sensitive.

**3.** Click **OK**.

➔ You are logged into the system.

### Login via the drop-down menu

**1.** Click the arrow to the right of the button  .

➔ A drop-down menu will open.

**NOTE**

The drop-down menu displays the user names of the last 5 successful registrations. This function is not available when you log in for the first time.

**2.** Select the desired user name.

➔ The **SISTORE MX login** dialog opens (see Fig. 3).

**3.** Enter the **password**.

**4.** Click **OK**.

➔ You are logged into the system.

**NOTE**

Every time a user attempts to log into SISTORE MX, the following information is recorded in the logbook:

- User name
- Time of the login
- Information on whether or not the user was granted access to SISTORE MX

The password is not stored.

## 9.3 Program window

The program is started automatically when the device is started.

➔ After the SISTORE MX is started the program window appears:


Fig. 4 SISTORE MX start dialog

The SISTORE MX program window consists of the following components:

| | |
|---|---|
| **1** | **System condition and system information**<br>See Section 9.7: Video image display modes |
| **2** | **Start frame**<br>The start frame for the application is displayed insofar as no PTZ camera is available or the registered user does not have authorisation for controlling a PTZ camera. See Section 16.2Camera PTZ control.<br>The start frame is also available if no user is registered. |
| **3** | **Status bar**<br>See Section 9.5: Status bar. |
| **4** | **Video display area**<br>See Section 9.6: Video display area. |
| **5** | **Camera window** |
| **6** | **SISTORE MX tool bar**<br>See Section 9.4: Toolbar. |
| **7** | **Menu bar** |

After SISTORE MX is started you will automatically be in “display mode”. This mode is the control centre. This is where all cameras are displayed and the output of all alarm and status signals takes place.

Following first start, SISTORE MX enters all local hard disks on the list of the disks to be used for recording. The partition where the operating system is installed is removed from the list automatically.

Network drives are not added to the list automatically.

When starting SISTORE MX for the first time, all analogue cameras found by an automatic check of video inputs should be displayed. If this is not the case, one of the following reasons is possible:

- an error occurred during the installation of SISTORE MX
- the connection of the cameras to SISTORE MX is faulty (connector not plugged in properly)
- the camera is not sending any signal

In the first case, you should contact your installer.

## 9.4 Toolbar

The software functions can be called up by selecting the appropriate button in the SISTORE MX toolbar.


Fig. 5 SISTORE MX toolbar

| | |
|---|---|
| **1** | **Login**<br>See Section 9.2 Login. |
| **2** | **View logbook** |
| **3** | **Next group**<br>See Section 10.11 Display camera group . |
| **4** | **Automatic scan** |
| **5, 6** | **Video display modes**<br>See Section 9.7: Video image display modes |
| **7** | **Show event window** |
| **8** | **Show map**<br>See Section 10.12 Site plan |
| **9** | **Audio on/off**<br>See Section 10.2 Audio on/off |
| **10** | **Start recording:** Starting the recording<br>See Section 12 Starting and stopping recording |
| **11** | **Stop recording:** Stopping the recording<br>See Section 12 Starting and stopping recording |
| **12** | **Playback:** Starting playback. |
| **13** | **Online help** |

## 9.5 Status bar

At the bottom of the screen you will find a status bar. You can switch this on or off with the help of the menu **View** -> **Status line visible/invisible**. On the playback or configuration level, however, the system information is not visible, i.e. in this case the status line represents the only source of information.

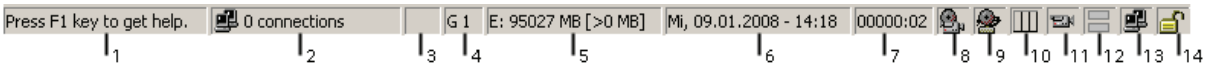



Fig. 6 Status bar

The status bar is divided into 14 fields (see Fig. 6). The meaning of the fields is as follows:

| | |
|---|---|
| **1** | Brief help text to the menus (Windows standard) |
| **2** | Number of active connections |
| **3** | Connection speed |
| **4** | Currently displayed camera group |
| **5** | Free storage space of drive(s) being used and the minimum required free space (see below in this section) |
| **6** | Date and time |
| **7** | Application running time in hours and minutes |
| **8** | Symbol showing whether a camera has detected a motion<br>Motion detected<br>No motion detected |
| **9** | Symbol showing whether SISTORE MX is currently recording an alarm<br>Alarm<br>No alarm |
| **10** | Status indication of the tamper detection<br>Tamper detection active – no tampering detected.<br>At least one camera has detected a tamper event. |
| **11** | Symbol showing a recording activity or a fault in hardware<br>(blinking green) Hardware OK, recording in progress<br>(grey) Hardware OK, no recording activity<br>(red) Fault in hardware |
| **12** | ISDN connection.<br>Channel 1 and Channel 2 are not busy<br>Channel 1/Channel 2 is busy, connection is set up.<br>Dial-up of Channel 1/Channel 2 |
| **13** | Symbol indicating the connection status of the RemoteView.<br>There is at least one active connection with a RemoteView PC<br>There is no active connection with a RemoteView PC |
| **14** | Login/logout symbol showing the user status<br>User logged in<br>No user logged in |

The available disk capacity is shown in four stages in the status line, two of these are shown as a graph display.

Stage 1: The disk capacity which is already occupied is shown as a percentage in the form of a blue bar.

Stage 2: As stage 1, but showing the estimated remaining recording time. This is an estimate because the system does not display the actual remaining recording time but, instead, measures the data volume that can still be saved and displays it as an estimated available remaining recording time. The system uses the actual settings (frame rate, image size) as a basis for this estimate.

Stage 3: Shows in text form the designation of the hard disk where current recording is taking place, the disk's available capacity and its maximum capacity.

Stage 4: Shows in text form the available capacity and the maximum capacity of all hard disks authorised for recording.

The display form set last is stored and used automatically again when SISTORE MX is restarted. This does not apply to SISTORE MX RemoteView.

**RemoteView status displays**

There are several server-related status displays on the RemoteView. In multi-server mode, the server whose status is to be displayed must be selected in the list of cameras.

The status displays always relate to the server that is associated with the selected camera.

The server-related status displays include:

- Time
- Alarm outputs
- HDD capacity indicator
- Recording duration
- Start/stop of recording

Global status displays for all servers include:

- Motion
- Alarm
- Loss of video
- Camera tamper
- Error
- Connection

## 9.6 Video display area

In **display mode** all camera pictures are each located within one window. Each window has a pre-set size and position. The number of visible camera windows depends on the configuration and the chosen order of the windows. Only those cameras are displayed which have been configured in the **configuration mode** and released for display. The name of the camera, date and time may also be displayed within the camera picture. Position and colour for these text titles can be set in the **configuration mode**.

Right-clicking on a camera window will open the appropriate context menu. This context menu offers additional options.

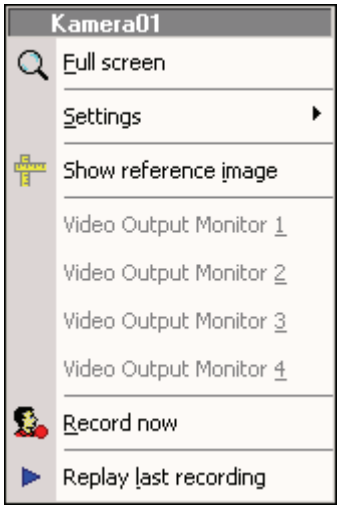



Fig. 7 Context menu in the video display area

## 9.6.1 Toggle video display area

By selecting ***View*** -> ***Display off*** in the display mode you can switch the video display area on and off even if a user is currently logged on.

Prerequisite:

- You are logged into SISTORE MX and the display mode is opened.

**1.** Select **Display off** or **Display on** in the **View** menu .

➔ The video display area is switched off or on.

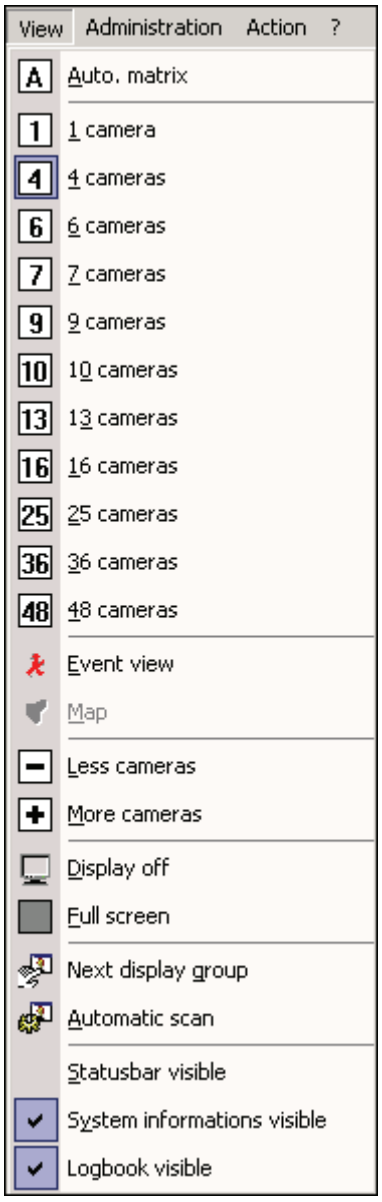



Fig. 8 "View" menu

### 9.6.2 Toggle full screen mode

Each camera window can be enlarged.

1. Right-click on the corresponding video image in the video display area.
   ➔ The context menu will open.
2. Select **Full screen** in the **context menu**.
   – OR –
   Double click the left mouse button on the corresponding video image.
   ➔ The video image is displayed in full screen mode.

**Return to normal screen:**

1. Double click the left mouse button on the camera picture displayed in full screen mode.
   ➔ The video image is displayed in the normal screen mode.

**NOTE**
The size of the video image is limited by the size of the camera window. If the picture supplied by the camera is larger than the display area, it will be scaled down to an appropriate size so it can be displayed in the camera window. Only one camera window can be enlarged at a time.

## 9.7 Video image display modes

You can choose how many camera windows will be displayed simultaneously in the video display area.

The camera windows are displayed equally in a 1-, 4-, 9-, 16-, 25-, 32- and 64-split. Using the 6-, 7-, 10- and 13-split, the windows are displayed in different sizes.

**NOTE**
Adjustments are possible depending on the respective hardware being used; for instance if your HVR systems is an 8-channel model, then only 8 cameras will be displayed in the 9-split display.

Different acronyms are displayed in the video frame at top left to identify the mode of operation (see Fig. 9).


Fig. 9 SISTORE MX camera window

The meaning of the acronyms is as follows:

| Acronym | Meaning |
|---|---|
| STOP | Camera image is only displayed |
| DET | Motion detection is activated |
| REC | Camera is recording |
| PTZ (yellow) | The camera has pan/tilt and zoom functions and is currently active. The window of an active PTZ camera has yellow edging. |
| PTZ (grey) | The camera has PTZ function, but is not active, i.e. the PTZ function is not being applied to this camera. |
| DISP | The live image of a LAN camera is displayed. |

## 9.7.1 Changing the number of cameras shown

Prerequisites:

- The SISTORE MX application software has been started.
- You are logged into SISTORE MX..
  (See Section 9.2: Login)
-

1. Select the desired menu option **X cameras** in the **View** menu.
   ➔ The selected number of cameras are shown in the video display area.

**Increase or reduce the number of cameras shown**

1. Click either  or  in the toolbar.
   ➔ The number of cameras shown is increased or reduced.

The window split is defined within the “configuration mode”, which is automatically active after starting SISTORE MX.

## 9.7.2 Enlarging camera windows

Each camera window can be enlarged and displayed centrally.

1. Right-click on the corresponding video image in the video display area.
   ➔ The context menu will open.
2. Select **Full screen** in the **context menu**.
   – OR –
   Double click the left mouse button on the corresponding video image.
   ➔ The video image is displayed in full screen mode.

**Return to normal screen**

1. Double click the left mouse button on the camera picture displayed in full screen mode.
   ➔ The video image is displayed in the normal screen mode.

**NOTE**

The size of the video image is limited by the size of the camera window. If the picture supplied by the camera is larger than the display area, it will be scaled down to an appropriate size so it can be displayed in the camera window. Only one camera window can be enlarged at a time.

### 9.7.3 Regrouping camera windows

You can regroup the camera windows as desired.

Prerequisites:

- The SISTORE MX application software has been started.
- You are logged into SISTORE MX..
  (See Section 9.2: Login)
- The video display area is opened.
  (See Section 9.6.1: Toggle video display area)
-

1. Click on the desired camera window.
2. Drag the camera picture to the desired window while holding the left mouse button pressed.
   ➔ The positions of the two camera windows are interchanged.

## 9.8 System condition and system information.

### 9.8.1 Showing / hiding system information

Prerequisites:

- The SISTORE MX application software has been started.
- You are logged into SISTORE MX..
  (See Section 9.2: Login)
- The SISTORE MX application software is in display mode.

1. Click the option **System information visible** in the **View** menu.
   ➔ The system information is either shown or hidden (see Fig. 10).

### 9.8.2 Meaning of the displays in the system information

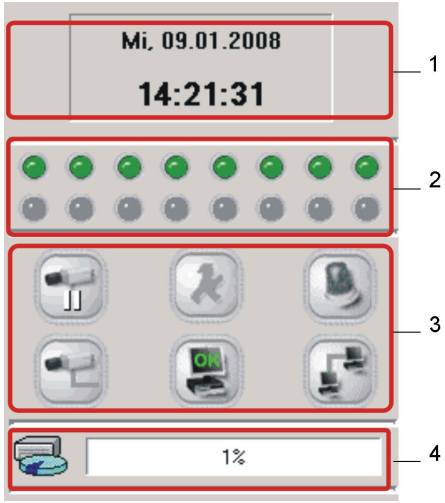


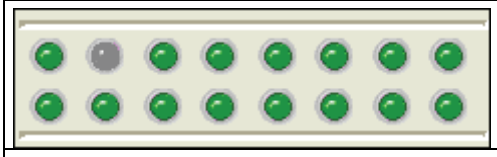
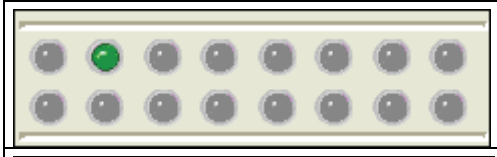
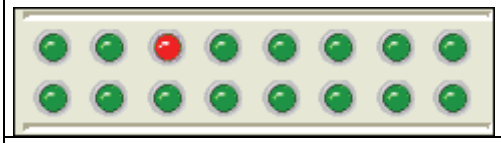
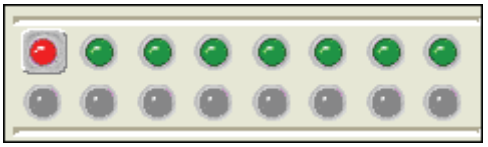
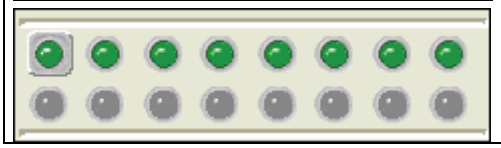

Fig. 10 SISTORE MX system information

| | |
|---|---|
| **1** | Shows the current time and date |
| **2** | LEDs indicating the status of the alarm outputs (see Tab. 2) |
| **3** | Various status displays (see Tab. 3) |
| **4** | Indication of the free hard disk capacity (see Fig. 11) |

Tab. 1 Sections of the SISTORE MX system information

### LEDs indicating the status of the alarm outputs

There is one status LED for each of the 16 alarm outputs. The meaning of the status LEDs is as follows:

| | | |
|---|---|---|
|  | Grey (top row, 2nd from left) | The alarm output is not configured and is not being used. |
|  | Green (top row, 2nd from left) | The alarm output is inactive. |
|  | Red (top row, 3rd from left) | The alarm output is active. |
|   | Red/Green surrounded by a rectangular field (top row, 1st from left): | This alarm output can be activated or deactivated by the user manually.<br>Red means that the alarm output is currently active.<br>Green indicates inactive status. |

Tab. 2 Meaning of the LEDs indicating the status of the alarm outputs

**NOTE**

For information on the configuration of the alarm outputs please refer to the SISTORE MX Configuration Manual.

If the mouse indicator rests on a status LED, a popup Quickinfo shows the name of the alarm output.

### Various status displays

The section below the LEDs indicating the status of the alarm outputs contains various status displays. The meaning of these status displays is as follows:

| | |
|---|---|
| | No recording at the moment |
| | Min. one camera is recording |
| | No movement |
| | Movement detected |
| | No alarm |
| | Alarm |
| | Camera connection OK |
| | Loss of video |
| | Tampering detected |
| | Tampering and a camera breakdown detected |
| | System condition OK |
| | System error |
| | No active connection to a SISTORE MX client |
| | Connection to a SISTORE MX client is online |

Tab. 3 Meaning of the status displays

If the mouse indicator rests on a status display, a Quickinfo window pops up.

### Indication of the free hard disk capacity

Underneath the status displays, there is a graphic display of the available capacity of the hard disks enabled for recording.


Fig. 11 Indication of the free hard disk capacity

**NOTE**

When the system is not recording, e.g. in the configuration mode, the display shows the hard disk capacity that is actually engaged and the free hard disk capacity.

When the recording operation is started, the system reserves additional hard disk capacity for about 1-2 minutes; the percentage of the engaged hard disk capacity will therefore be slightly increased.

If the mouse indicator rests on the hard disk capacity display, a Quickinfo window pops up.

# 10 Display mode functions

## 10.1 Change password

Prerequisite:

- You have been granted permission to change your password by an administrator or admin user.

1. Select **New password** in the **File** menu.
   ➔ The Password modification dialog opens (see Fig. 12).

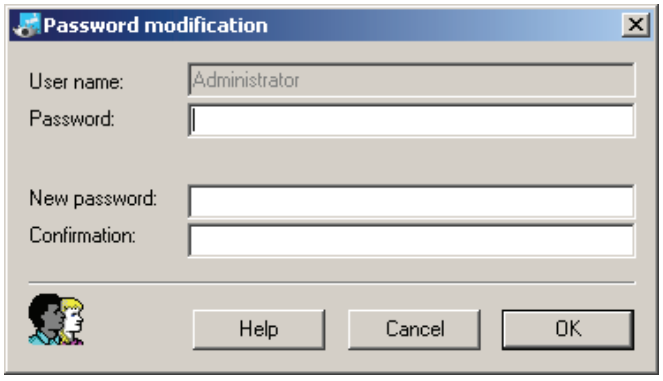



Fig. 12 Password modification dialog

2. First enter the old password and then enter the new one into the field below.
3. Enter the new password once more into the ***Confirmation*** field.
4. Click **OK**.

## 10.2 Audio on/off

Prerequisite:

- You are logged into SISTORE MX and the display mode is opened.

1. In the **Action** menu, select the option **Audio on** or **Audio off**.

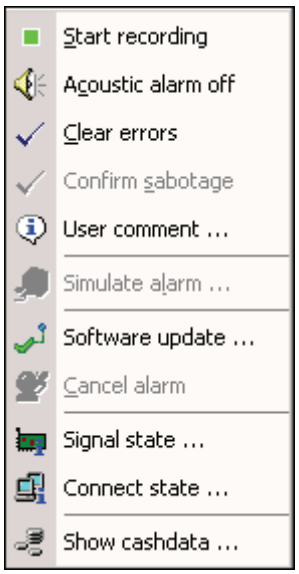



Fig. 13 "Action" menu

## 10.3 Clear errors

Prerequisites:

- You are logged into SISTORE MX and the display mode is opened.
- There is a malfunction.
-

1. Select **Clear errors** in the **Action** menu.
   (See Fig. 13.)

**NOTE**

Errors include for instance a defective hard disk or the untimely termination of SISTORE MX (e.g. as a result of a power failure, etc.).

## 10.4 User comment

You can add comments to the logbook at any time. This function is also available in SISTORE MX RemoteView.

1. Select ***User comment*** in the ***Action*** menu.
   – OR –
   Press the key combination <***ALT+ L***>.

   ➔ The following dialog box will appear:

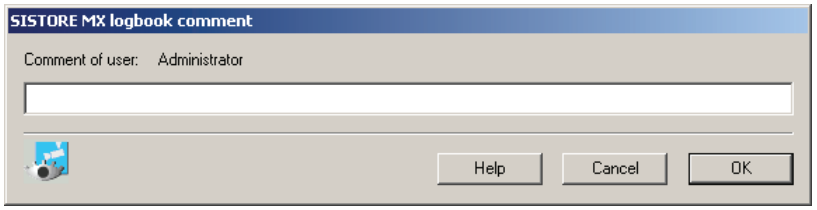



Fig. 14 SISTORE MX logbook comment

2. Enter a comment and click **OK**.

   ➔ The comment will be saved to the logbook together with the user name.

## 10.5 Show signal states

The signal states of the cameras, alarm inputs, alarm outputs and digital inputs can be displayed on the server.

To do this select ***Signal state…*** in the ***Action*** menu.

The meaning of the symbols is as follows:

| Symbol | Meaning |
|---|---|
|  | Motion detected by camera |
|  | Signal loss on camera |
|  | Tamper event detected by camera |
|  (LED light-red) | Active alarm input |
|  (LED light-green) | Active alarm output |
|  (LED light-blue) | Active digital input |

Alarm outputs that are remotely controllable can be activated/deactivated by double clicking the corresponding LED.

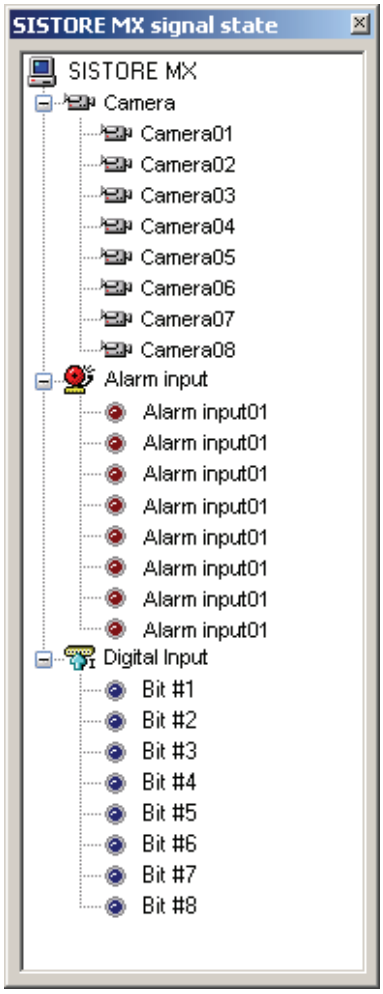



Fig. 15 Signal status

## 10.6 Display connection status and terminate connections

**Display the RemoteView clients that are currently connected to the server**

1. Select ***Connect state…*** in the ***Action*** menu.

   ➔ The window which appears contains information on the connection status (see Fig. 16).

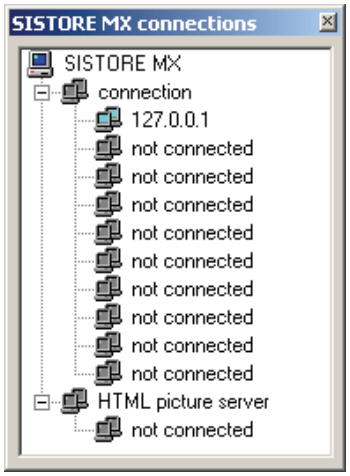



Fig. 16 SISTORE MX connections

**Disconnect RemoteView clients**

1. To do this select **Connect state…** in the **Action** menu.
2. Double click an active connection.

## 10.7 Show cash data

Prerequisites:

- The SISTORE MX application software has been started.
- You are logged into SISTORE MX..
  (See Section 9.2: Login)
- The SISTORE MX application software is in display mode.
- SISTORE MX is in cash box mode.
  Further information on this can be found in the SISTORE MX Configuration Manual.
- At least one cash box has been added to the cash box list and configured.
  Further information on this can be found in the SISTORE MX Configuration Manual.

1. Select the option **Show cashdata** in the **Action** menu.
   ➔ The SISTORE MX cash box data dialog opens (see Fig. 17).
2. In the **Options** group field under **Cash**, select either **all cash boxes** or select the desired cash box.
3. In the **Options** group field under **Data**, select either **Raw**, **Codepage** or **Filtered**.
   ➔ The cash box data will be shown.

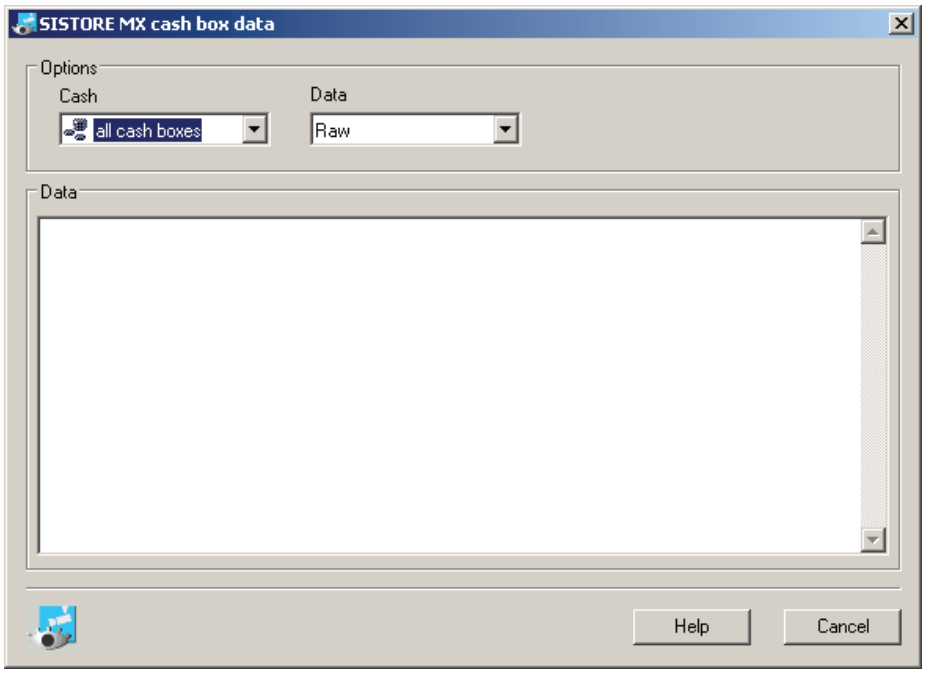



Fig. 17 SISTORE MX cash box data dialog

**NOTE**
Changes to the filter settings will be seen with the next data received.

# 10.8 Setting image parameters

**NOTE**
It depends on the type of camera whether or not and which image parameters can be set.

In this dialog, you can change the display quality of the live images and the recording quality.

Prerequisite:

- You are logged into SISTORE MX and the display mode is opened.

1. Right-click on the live image of the required camera.
   ➔ The context menu will open.
2. Select **Settings** in the **context menu**.
   ➔ The following window will appear:

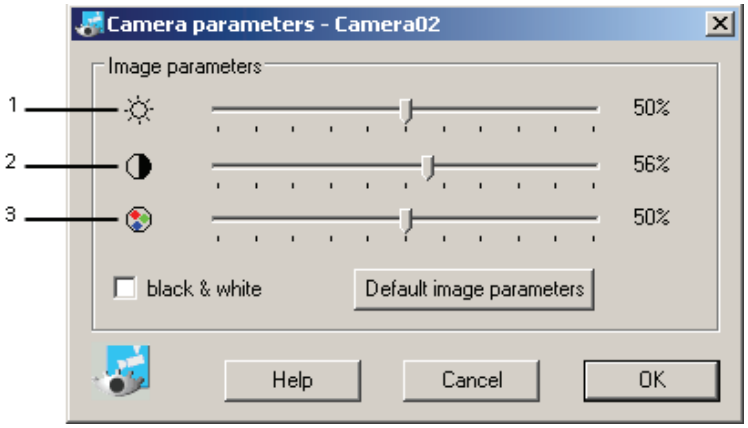



Fig. 18 Setting image parameters in the "display mode"

| Camera parameters | |
|---|---|
| 1 | Brightness |
| 2 | Contrast |
| 3 | Colour saturation |

3. Move the slide controls to the desired positions.
4. Click **OK**.
   ➔ The settings have been saved.

### Black & white mode

When black-and-white mode is activated, the slide control for **colour saturation** (3) is disabled and the images of the selected camera are displayed in black and white.

1. Mark the checkbox **black & white**.
2. Move the slide controls for brightness (1) and contrast (2) to the desired positions.
3. Click **OK**.
   ➔ The settings have been saved.

**Reset default image parameters**

Clicking the button **Default image parameters** resets all image parameter to their default values.

1. Click on **Default image parameters**.
2. Click **OK**.
   ➔ The settings have been saved.

## 10.9 Display 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 SISTORE MX RemoteView.

**Generate reference image**

1. Select the menu sequence Administration -> Configuration -> Camera.
   ➔ The camera configuration dialog appears.
   ➔ The system automatically generates a camera frame and saves this under a preset name. The frames are stored in the application's main directory (e.g. C:\Programs\SIEMENS\ SISTORE) under the name **camrefx.jgp**, where x stands for the camera number.

**Display reference image**

Displaying a saved reference frame is possible both on the server as well as with SISTORE MX RemoteView.

Prerequisite:

- The user has „Replay“ and „Display“ authorization.

Additional prerequisites for SISTORE MX RemoteView:

- The PC is connected to a server.
- The live image of the camera is displayed.

1. Right-click on the image of the required camera.
   ➔ A context menu will be opened.
2. Select ***Show reference frame*** from the context menu.
   ➔ The reference image will now be displayed.

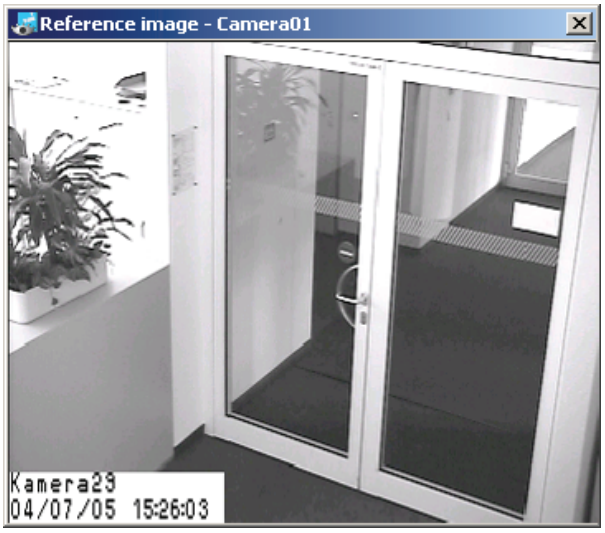



Fig. 19 Display reference image

The menu option remains inactive if no reference frame has been stored or the user does not have adequate authority.

On SISTORE MX RemoteView, this menu option is always enabled if the user has authorisation to display a reference frame. If no reference image has been saved for the selected camera, an information message is displayed.

## 10.10 Output of video image on analog monitor

Each video image can be displayed on an analog monitor provided that it was captured by an analog camera. This can be done by clicking the right mouse button being in the corresponding camera picture and then selecting „Monitor“ from the context menu. The automatic output of all camera pictures on an analogue monitor can be activated or deactivated via the menu ***View*** -> ***Cameras on monitor***, or by selecting the appropriate button on the toolbar.

If an alarm occurs where the images of a specific camera are to be switched to the monitor in compliance with configuration, that camera has priority over manual selection. The automatic picture sequence is interrupted for the duration of event.

## 10.11 Display camera group

If more cameras are released for display than can be displayed simultaneously in a multiple split screen, all cameras are divided into groups. SISTORE MX defines these groups independently. The first ***n*** camera windows are located in Group 1, the last camera windows to be displayed are in the last group. The groups may be switched through either manually or in an automatic sequence. The groups are shown in order, with the first group being shown again after the last group.

The selection of either manual or automatic switching through is carried out via the menu ***View*** -> ***Next Display Group*** or ***Automatic Scan***, or directly by selecting the appropriate button in the toolbar. During the enlarged display of a window, switching through camera groups is not possible.

# 10.12 Site plan

## 10.12.1 Display modes

### Single-monitor mode

1. Click the button ***Show map*** in the toolbar.

➔ The display window is split horizontally.
In the top section, 1 large and 4 small windows are displayed. In the bottom section, the site plan is displayed as configured (see Fig. 20).

This splitting of the screen is predefined and cannot be changed.

**NOTE**

The event view window (1) can be opened at any time by clicking the button ***Show event window***.

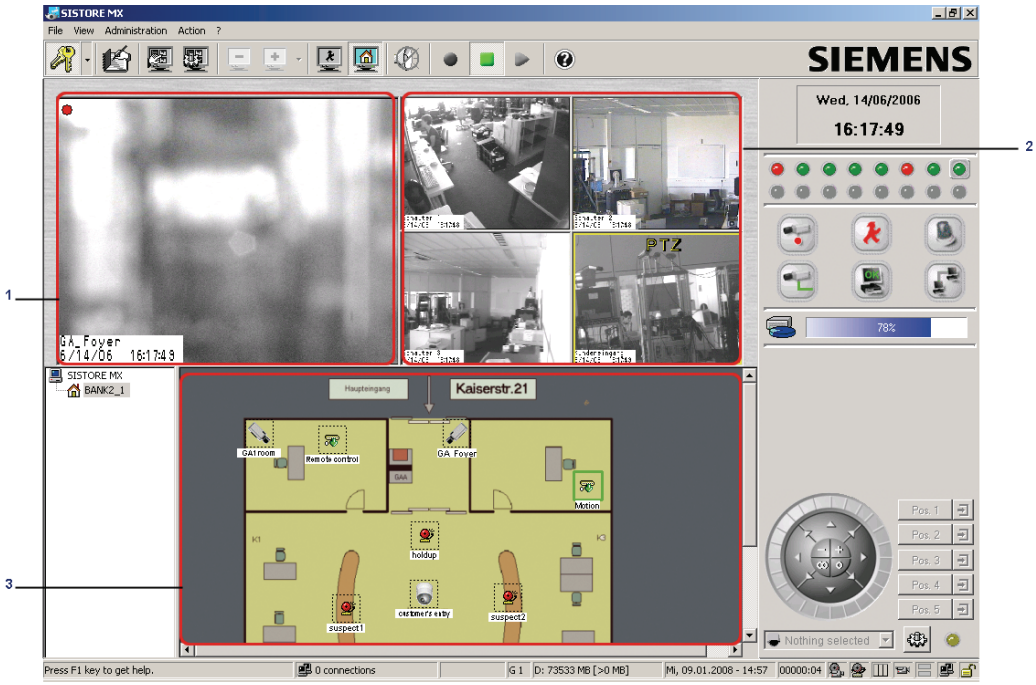



Fig. 20 Display site plan in single-monitor mode

| | |
|---|---|
| **1** | Event view<br>The video image of the camera that was selected in the site plan will be displayed in this area. In our example, the camera has been tampered with by spraying on paint. |
| **2** | In this area, 4 video images are displayed simultaneously. Depending on the number of cameras that have been configured you can view further camera pictures by either clicking the button ***Next group*** or by selecting the menu sequence ***View*** → ***Next display group***. |
| **3** | In this area the site plan is displayed as configured. |

## 10.12.2 Functions

**Display live image of camera**

Click on a camera symbol in the site plan.

➔ The camera has been selected and its live image will be displayed in the event view window (display area 1).

**NOTE**

If the camera is a pan/tilt camera, it can be orientated using the button ***Camera pan tilt zoom (PTZ)***.

**Open the camera context menu**

The camera context menu permits recording to be started manually.

Right-click on a camera symbol in the site plan.

➔ The context menu of the camera will be opened:

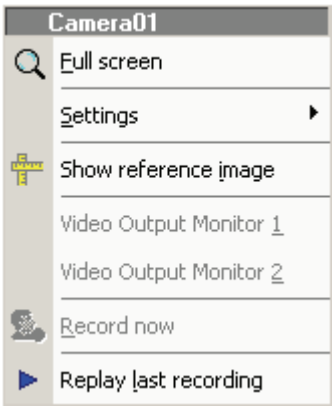



Fig. 21 Camera context menu

## 10.12.3 Status displays

| Status display | Meaning |
|---|---|
| Blinking green frame around a live image. | Motion is being recorded. |
| Blinking red frame around a live image. | Alarm recording is taking place. |
| Blinking red frame around an alarm input. | The alarm input has been triggered. |
| Green frame around an alarm output. | The alarm output has been activated. |

**NOTE**

If any of these status display actions is taking place on a level that is not currently displayed, the name of the level is shown flashing red in the tree structure.

**NOTE**

The function **Show map** is also available on the SISTORE MX RemoteView.

**NOTE**

In multi-monitor mode, the site plan will be displayed in full screen format on the second monitor. The first monitor will continue to be used for live image display.

# 11 User rights

Persons without user rights have no access to SISTORE MX. User rights can be configured in the „User management“.

Each person who will be working with SISTORE MX will be defined as a user and assigned user rights. Only administrators and persons with user administration rights can create and delete users or assign and change user authorisations. To assign or delete rights, a user must at least have the same or a higher level of authorisation.

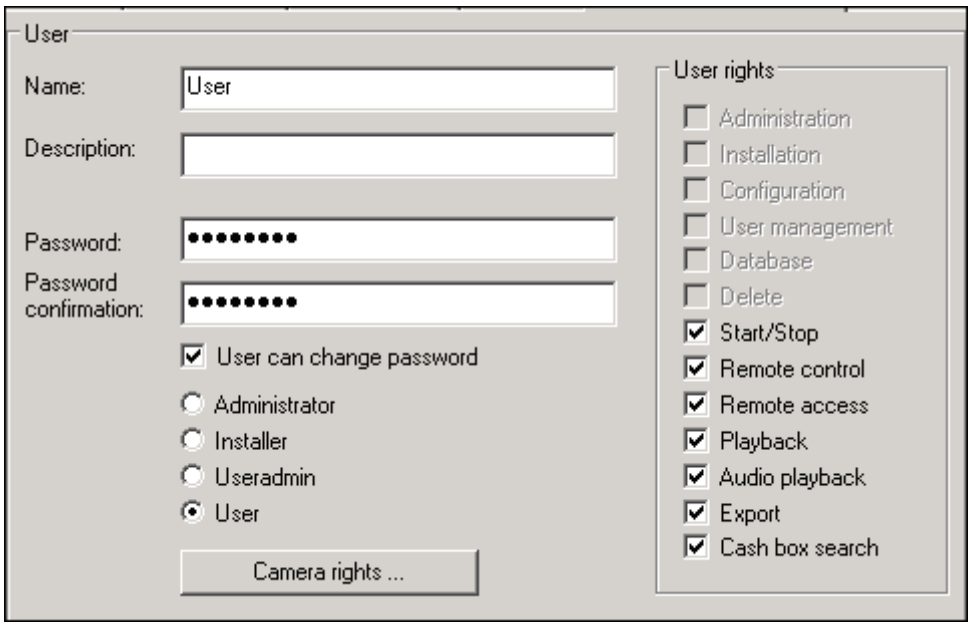



Fig. 22 User data and user rights

The following tables give an overview of the different user rights:

### Global user rights

Global rights are user rights that apply to all cameras. They cannot be assigned to a user only for particular cameras. The following table describes the global user rights.

| Authorisation | Description |
|---|---|
| Administration | ● Configure all system settings |
| Installation | ● Configure system settings, with restrictions |
| Configuration | ● Create, delete user and grant permissions<br>● Set up user interface<br>● Configure hardware components |
| User management | ● Create new users<br>● Delete users<br>● Change the authorisations of existing users |

| Authorisation | Description |
|---|---|
| Database | ● Process the database during playback, e.g.:<br>– Backup the database<br>– Regenerate the database<br>– Check and repair the database<br>– Re-index the database<br>Prerequisite: Playback authorisation |
| Delete | ● Delete message and recorded sequences<br>Prerequisite: Playback authorisation |
| Start/Stop | ● Start, stop and terminate recording<br>● Terminate SISTORE MX |
| Remote control | ● Activate and deactivate alarm outputs either locally at the server or via RemoteView<br>● Control PTZ camera<br>Prerequisite: The alarm outputs have been appropriately configured (see Section 19.15: Remote control of alarm outputs). |
| Remote access | ● Log on to the system via SISTORE MX RemoteView<br>● Remote maintenance and remote surveillance |
| Playback | ● Prerequisite for camera-specific playback authorisation.<br>● Prerequisite for audio playback |
| Audio playback | ● Play audio recordings<br>Prerequisite: Playback authorisation |
| Export | Export and backup recordings, e.g.:<br>● Create AVIs<br>● Create individual images (BMP or JPG)<br>● Print pictures<br>Prerequisite: Playback authorisation |
| CDM search | ● Start CDM search when both banking mode and CDM system are activated<br>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. The logbook, for instance, will not be displayed.<br>CDM search authorisation can be assigned in the user configuration when banking mode is activated. |

### 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.

| Authorisation | Description |
|---|---|
| Display | ● View the live images of a camera<br>DISPLAY is a camera-related authorisation<br>DISPLAY authorisation is not necessary to play the recordings of a camera. The camera-related playback authorisation is sufficient for this. |
| PTZ | ● Control a PTZ camera<br>Prerequisite: DISPLAY authorisation for the particular camera. |
| Playback | ● Play the recordings of a camera<br>Prerequisite: Global playback authorisation<br>This does not apply to cash dispenser cameras and cash box cameras. For these cameras, global search rights are required.<br>● Start cash box search (activated cash box system). This is only possible when banking mode is deactivated. |

# 12 Starting and stopping recording

## 12.1 Starting and stopping normal recording

Starting and stopping of the recording is carried out either via the menu ***Action*** -> ***Start/Stop recording*** or directly by selecting the appropriate button (Start recording/Stop recording) from the toolbar.

The recording action is identified by *REC* in the picture of the camera in question. If cameras are not recording but are nonetheless displayed, this is indicated by *STOP* within the picture. When a camera is defined as video sensor (motion detector), movement is displayed by *DET* in the picture of the camera in question.

Displaying the camera condition as a symbol or as text must be activated in the “hardware configuration“ of the “configuration mode“.

**NOTE**

Please note that pre-alarm images will be saved permanently only after an alarm is triggered. If no alarm is triggered, then the pre-alarm images will not be saved permanently. An alarm may be triggered either by an event (e.g. motion detection) or by an operator, for instance when pressing the alarm button during or after a bank robbery.

**Starting and stopping recording via the context menu**

Cameras can be switched from live image to record mode using the camera context menu.

To do so, the user requires Start/Stop authorisation.

1. Open the ***context menu*** in the video display area (right mouse-click).
2. Select ***Start recording*** in the context menu.

Manual triggering uses the same settings for recording as set for motion recording. If no motion recording is installed, the camera records for 10 seconds at the max. frame rate.

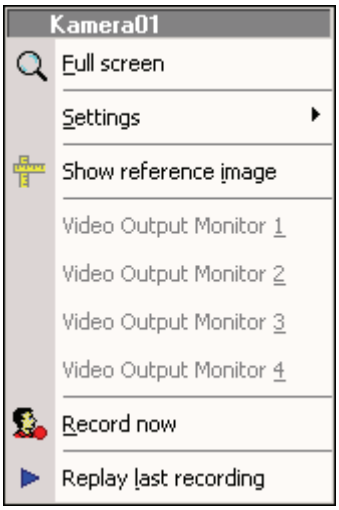



Fig. 23 Manually operated recording via context menu

**NOTE**

Please note that pre-alarm images will be saved permanently only after an alarm is triggered. If no alarm is triggered, then the pre-alarm images will not be saved permanently. An alarm may be triggered either by an event (e.g. motion detection) or by an operator, for instance when pressing the alarm button during or after a bank robbery.

## 12.2 Triggering trial recording

Trial recording can be triggered with activated bank operation in the recording mode via the menu ***Action*** -> ***Test alarm***. As a result, all cameras – with the exception of the CDM (Cash Dispensing Machine) cameras – record image sequences of 5 frames.
Triggering trial recordings is recorded in the log book so that it is possible to search selectively for trial recordings at a later date.
As the recordings must be available permanently, they are not deleted if the recording capacity has been used up completely. A deletion only takes place if the number of pre-set recordings has been exceeded.

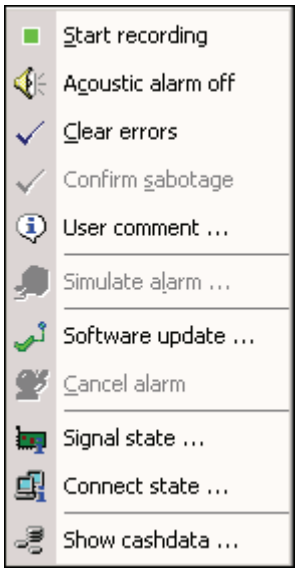



Fig. 24 Triggering test recording

## 12.3 Please-wait dialog

A progress dialog is automatically displayed (also applies to SISTORE MX RemoteView!) after a certain time from the start of an action. This shows:

- the expected (= estimated) remaining duration of an action in min. and sec (with precision to 5 sec)
- a light to dark progress bar symbol for the previously completed part of the action (relative to the overall process) as well as the corresponding percentage data
- a button for aborting the action.

The remaining time display always relates to the remaining time for all parallel running activities. Fluctuations in the display are possible because the estimated remaining time is calculated from the already existing elapsed time and the progress achieved within that period of time. The calculated time can vary from the actual time particularly in the case of changing transmission speeds of data transmission (ISDN) connections.

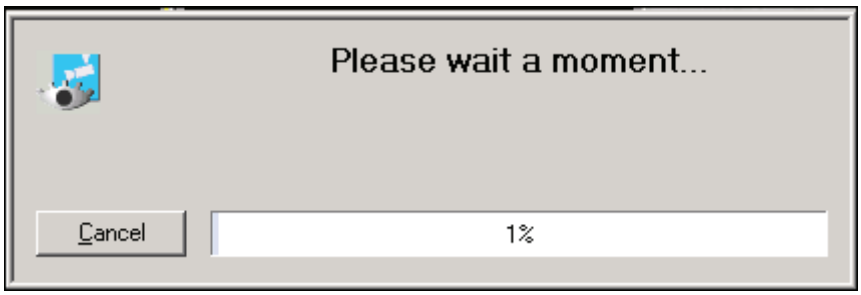



Fig. 25 Please-wait dialog SISTORE MX / SISTORE MX RemoteView

# 13 Recording modes

With the hardware integrated into SISTORE MX, it is possible to record video sequences from different cameras when using network or IP cameras. Signals which are fed into the recording system from outside are used to control the operation of the SISTORE MX during this process.

The following recording modes are available:

- Event-triggered recording
- Long-time recording

All configured cameras operate initially in long-time recording mode and supply live images. Time settings and events assigned to the respective cameras determine whether the cameras are recorded or not.

## 13.1 Long-time recording

Long-time recording is a recording mode where videos are saved on the hard disk until this is completely full. After that, the oldest pictures will be overwritten continuously (time lapse mode).

## 13.2 Event-triggered recording

There are two possible modes of event-triggered recording:

- without pre-alarm history
- with pre-alarm history

Recording without pre-alarm history means that the recording is triggered either via an alarm contact, through motion detection, or via the software interface.

Recording with pre-alarm history means that the camera must already be recording. If no alarm occurs, the recording (pre-trigger time) is overwritten after a preset period of time. If an alarm is triggered - either through an alarm contact, motion detection or the software control -, the post-alarm time is recorded automatically. When this preset period of time has expired, the pre-alarm and post-alarm sequences are saved and a new pre-alarm recording is started.

It is possible to activate a write protection for event-triggered recording.

**NOTE**

Please note that pre-alarm images will be saved permanently only after an alarm is triggered. If no alarm is triggered, then the pre-alarm images will not be saved permanently. An alarm may be triggered either by an event (e.g. motion detection) or by an operator, for instance when pressing the alarm button during or after a bank robbery.

# 14 Alarm

## 14.1 Alarm input (detector )

An alarm input is typically a trigger input of the optocoupler board hardware. An alarm input is being triggered by an external signal on which a record can be started.

Each camera is available as a further alarm detector in conjunction with the motion detection of a camera.

**NOTE:**
Referring to the configuration, alarm inputs as for example light barriers, or cameras with activated motion detection can also be understood as alarm detectors .

## 14.2 Motion detection (camera as video sensor)

The last picture of a camera is constantly being compared with the current picture of the same camera. If there is a change in the picture content in a pre-set manner, SISTORE MX recognises a movement in the picture. This process is called "Motion Detection" and can be activated for each individual camera.

Motion detection can be used to activate an alarm record and/or record the picture from a camera only if there is a change in the picture's content. In the first case the camera itself is being used as an alarm detector also. Considerably less storage space is required in the case of the latter because only those pictures are saved where there has been a change in the content of the picture.

Parameters for the motion detection have to be adjusted separately for each camera. In addition, it is also possible to define sections of the video picture where motion detection should not or should only be carried out. This enables movements to be ignored, e.g. movement of trees caused by wind and particular attention to be given to areas of special interest.

## 14.3 In the event of an alarm

SISTORE MX checks whether there is a recording configuration for a camera for the signalled event. If this is the case, recording is started in accordance with the stored configuration.

If several events occur at the same time which would result in recording with the same camera, SISTORE MX decides on the further procedure according to the stored recording configuration. The following rules apply in this case:

- for recordings in the same recording mode (e.g. motion recordings), current recording continues until all events have been processed;
- long-term recordings are interrupted by a movement or alarm contact;
- motion recordings are interrupted by an alarm contact;
- alarm recordings with normal priority are interrupted by an alarm contact with raid priority.
- Recordings are recorded in the logbook and stored in a database if the option "logbook entry" has been activated.

## 14.4 Simulate alarm

The menu ***Action*** -> ***Simulate Alarm*** enables the simulation of alarms for test and/or practice purposes. This function may only be called up if it has been released in the “configuration mode".

## 14.5 Display alarm messages

In the event of an alarm, an alarm text can be specified using recording configuration for each camera and each alarm type (movement, contact with normal priority, contact with raid priority). This alarm message is displayed together with the name of the camera, both in display and playback modes at the bottom edge of the live or recorded images (see Fig. 26).

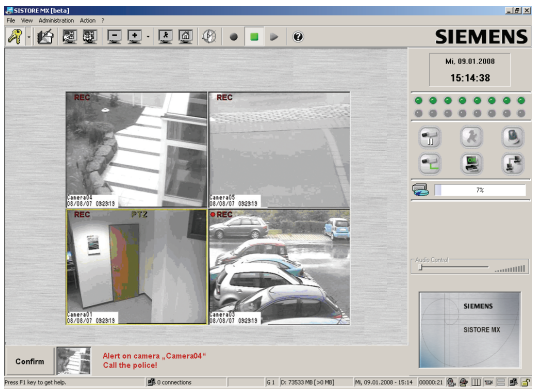



Fig. 26 Alarm message in playback mode

A user should confirm this message. The message and confirmation are recorded in the logbook. The message disappears if no confirmation is received within 15 minutes. An entry is then made in the logbook that the message was not confirmed. If several messages occur that are not confirmed, only the first message is displayed and registered for each camera.

With alarm messages it is possible to give the user instructions etc. about what further action should be taken by the user in the event of any such alarm.

## 14.6 Acoustic alarm

In the menu ***Action*** -> ***Acoustic alarm on*** it is possible to define by marking a checkbox whether SISTORE MX is to send out a brief acoustic signal in the case of an alarm occurring.

## 14.7 Cancel alarm

If the option ***Breakable by user*** is activated in the alarm configuration, an alarm that has been triggered can be cancelled manually. This will be registered in the logbook. This function is not available in SISTORE MX RemoteView.

# 15 Tamper detection

With the help of the automatic tamper detection – which is possible with analog and IP cameras – it is possible to detect turning, dazzling and covering. If tampering is detected, SISTOR MX reports the tampering on the screen and makes an entry in the logbook. In addition, an e-mail can be sent and a switch output activated.

For tamper detection, first of all stipulate a detection range (specific range of a video image) in the video image. Any change in the video image within this detection range is then registered. An alarm can then be emitted, depending on the settings for detection parameters.

**NOTE:**
You can stipulate several detection ranges per video input (live image).

**NOTE:**
For tamper detection, the detection range should always lie within an image section where generally there are only a few image changes and where a lot of non-changing edges are to be seen. Variations in the image, caused by tampering with the camera (camera was moved or covered), can thus easily be detected.

### Acknowledge tamper alarms

The menu function ***Action*** -> ***Confirm sabotage*** allows you to acknowledge tamper alarms.

# 16 External devices

## 16.1 Control external devices

An alarm output (actuator) is a digital output of the optocoupler board hardware which can be used in order to control an external device (e.g. siren, alarm system, door opener, lights).

## 16.2 Camera PTZ control

Cameras with pan-tilt-zoom control that are connected to a serial interface (RS232 or RS485 via converter) can be controlled by SISTORE MX.

Several PTZ cameras can be connected as long as the following conditions have been fulfilled:

- All cameras connected to a serial interface (COM-Port) use the same log.
- All cameras connected to a serial interface (COM-Port) have their own RS485 address.

There are several possibilities to control a PTZ camera:

- Keyboard
- Standard PC joystick / Jog Shuttle
- Control panels CKA 4810 and CKA 4820
- Graphic control elements that are displayed in the dialog bar at the bottom right

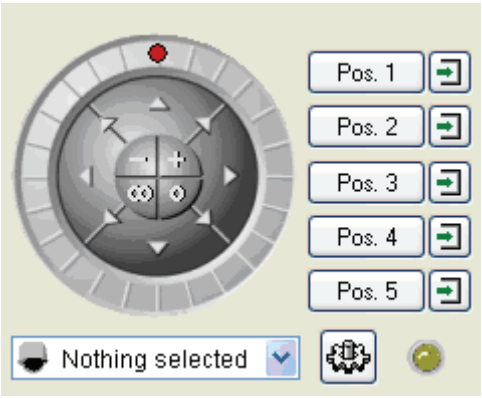



Fig. 27 Camera control using graphic control elements

### Camera control using graphic control elements

Prerequisite for the use of the graphic control elements:

- The PTZ camera has been configured and initialised correctly (COM Port free)
- The user is logged on and has "Remote control" and "Display" authorisations

The fact that the control elements are displayed is no guarantee that the camera is functioning.

| Function | | Key |
|---|---|---|
| Motion | left, right, up, down, up right, down right, up left, down left | Travel keys (arrows) |
| Zoom | in |  |
| | out |  |
| Focus | far |  |
| | near |  |

The auto-focus mode is activated again automatically with a pan-tilt command.

Under the PTZ control element, there is a selection list 

where all configured positions (max. 32) are listed with position names. The system goes to a position if it has been selected.

Movement to the first 5 stored set positions is possible using the control elements 

to 

. The position names are also displayed with these control elements.

Pushing the button  , the PTZ camera will move to the stored position automatically in an adjustable time.

The PTZ symbol is bordered in yellow in the live image of the camera currently being operated by the control system and the window is given a yellow surround. Non-active PTZ cameras are marked with a grey PTZ symbol. If several cameras can be controlled, a click with the left mouse button in the window of a camera activates the PTZ control for that camera.

### Camera control using the keyboard

The following key commands are available for PTZ control:

| Function | | Key |
|---|---|---|
| Motion | left, right, up, down<br>can be used with the number pad switched off: (Num Lock off) | Cursor keys |
| | up left | 7 |
| | up | 8 |
| | up right | 9 |
| | left | 4 |
| | centre | 5 |
| | right | 6 |
| | down-left | 1 |
| | down | 2 |
| | down-right | 3 |
| Zoom | in | + |
| | out | - |
| Focus | far | 0 |
| | near | , |

**Multi-user PTZ control**

Click on the camera window to activate the camera control functions. The colour of the frame around the camera picture and of the PTZ symbol now change to yellow, which means that you have control of the PTZ control functions.
If the camera is currently being controlled by another user, the following message is displayed:


Fig. 28 Multi-user PTZ control - Notification

This message contains information on who is currently controlling the camera. If the camera is currently being controlled by a user it will be blocked for all other users. The blocking is terminated when ...

- the other user has logged off.
- a certain period of time has expired after the last PTZ control command was sent to the camera. This period of time can be defined - please refer to the Configuration Manual.
- the automatic preset PTZ positions cycle is activated

Users without any control of the PTZ control system can see the graphic control elements but they are inactive.

These control possibilities are also available in SISTORE MX RemoteView. However, only one camera can be controlled at a time.

A remote user cannot take over control from any other remote user.

**NOTE:**
Activate the option „Auto Logout“ in the system configuration dialog.

**Set the moving speed of a PTZ camera**

Fig. 29 PTZ control with medium speed

The speed at which the PTZ camera can be moved using either the mouse or the keyboard is continuously variable.

Prerequisite: The camera supports variable speeds.

1. Click the red dot in the PTZ control symbol.
2. Keep the mouse button pressed.
3. Move the red dot in a semi-circle like a controller.

The lowest speed position is at left stop (270 degrees) and the highest speed position is at right stop (90 degrees). In Fig. 29 the PTZ control is set to medium speed.

**Click-To-Pos**

Some LAN PTZ cameras support the function "Click-to-Position": A click on the left mouse button in the camera's live image and the camera drives to the required point and positions it centrally in the image.

The mouse pointer changes when positioned over a camera window with Click-To-Pos capability.

There are LAN-PTZ cameras that can only be controlled at one fixed speed. Variable speed control is not possible in these cases.

## 16.3 Control panels CKA4810/CKA4820

The control panels CKA4810 (membrane keyboard) and CKA4820 (rubber keypad) are used for controlling cameras with pan/tilt facility that are connected either directly (RS485) or via RS485 / RS232 and RS232 / RS485 converters.

Control elements are provided for this and are divided into three groups (see Fig. 30).

- Group 1: Selection keys
  Numeral keys "0" .. "9"  "Cam", "Mon", "Mem", "Pos", "Start", "Stop"
- Group 2: Function keys
  "F1" .. "F10"
- Group 3: Camera control
  ◁, ▷, "0", ∞, Joystick

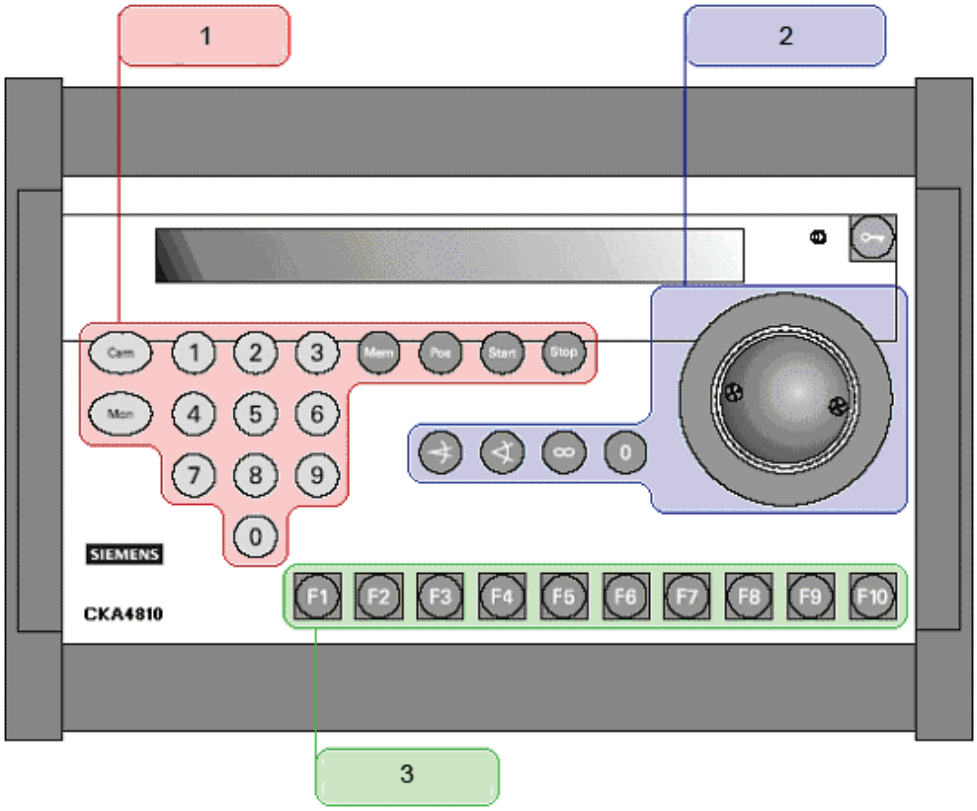



Fig. 30 Control elements of the CKA4810/4820

**Description of the selection keys**

| | Key / Key sequence |
|---|---|
| Camera selection for the PTZ control | Camera no. |
| Camera selection for the enlarged view | Camera no. + “Cam“ |
| Switch camera to external monitor | Camera no. + „Cam“ + Monitor no. + „Mon“ |
| Drive to set position | Position no. + “Pos“ |
| Start automatic picture sequence | “Start“ |
| Stop automatic picture sequence | “Stop“ |

**Description of the function keys**

| | Key / Key sequence |
|---|---|
| On ***SISTORE MX*** this key has no function. | F1 |
| Switch on the monitor cycle on monitor output 1 | F2 |
| Switch on the monitor cycle on monitor output 2 | F3 |
| Switch on the monitor cycle on monitor output 3 | F4 |
| Switch on the monitor cycle on monitor output 4 | F5 |

**Description of camera control**

| | Key / Key sequence |
|---|---|
| Panning and zooming of Dome cameras and pan-and-tilt drives | Joystick |
| Zoom out | Press key or turn joystick left |
| Zoom in | Press key or turn joystick right |
| Focus near | Press "0" |
| Focus far | Press ∞ |

**NOTE:**
As an entry can consist of several keys in this group, a preset period of time (time-out parameter is supplied by SISTORE MX) is waited after every key is pressed before the entry is considered to be completed. Only one and two-digit figures are accepted.

Please see the operating instructions for the CKA4810/CKA4820 for further information.

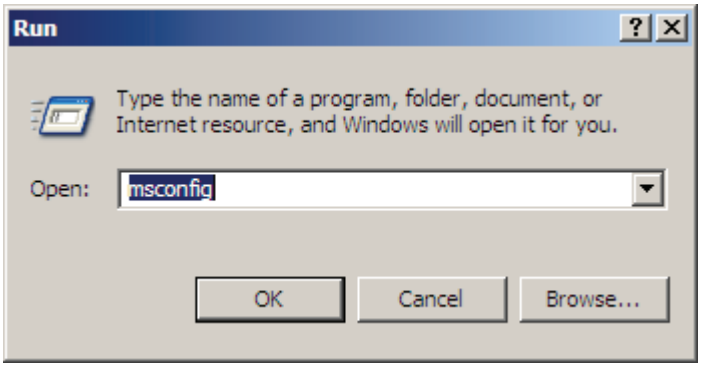
**Operation without CKA**

If your system operates ***temporarily*** without CKA:

1. Click on the icon in the Windows task bar.
2. Disable the driver in the context menu.


If your system operates ***permanently*** without CKA:

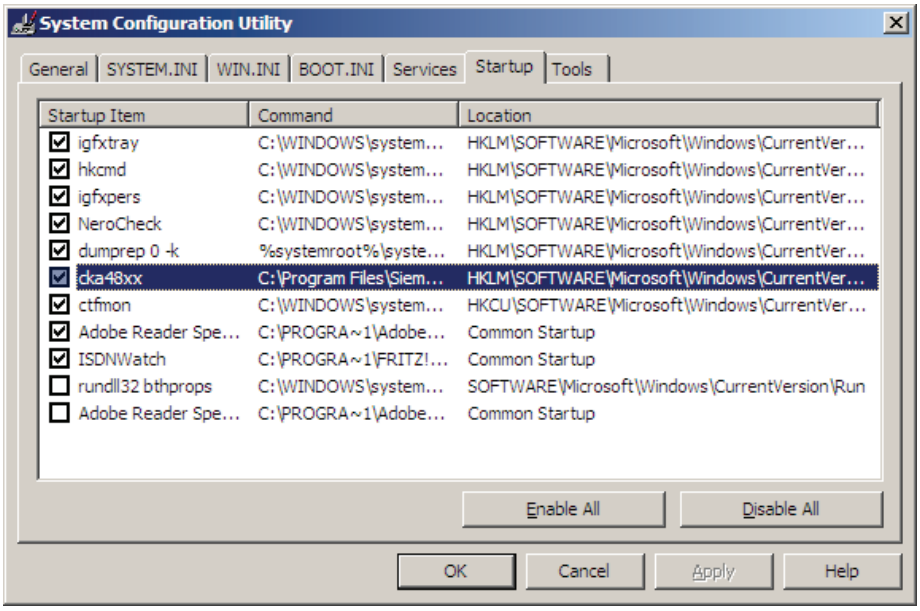
1. Select ***Start > Run***.
2. Enter ***msconfig***.




3. Click ***OK***.

➔ The ***System Configuration Utility*** dialog box opens.

4. Now select the ***Startup*** tab.




5. Untick the checkbox ***cka48xx***.

**Default settings**

- Interface
  - Baud rate: 9600
  - Parity: none
- Interface protocol: Simatrix RS232

# 16.4 Multimedia Control Panel ShuttlePRO2

**NOTE**

The Multimedia Control Panel (ShuttlePRO2, see Section 5: 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.

**NOTE**

The Multimedia Control Panel simulates keyboard entries. The device can be freely configured if the requisite key codes are known. Further information on this can be found in the manufacturer's instruction manual.

The Multimedia Control Panel offers the following features:

- Control of various functions of the SISTORE MX in playback mode
- Control of various functions of the SISTORE MX in display mode
- Control of various functions in SISTORE MX RemoteView
- Control of the SISTORE MX Player

For information on the installation and setup of the Multimedia Control Panel please refer to the SISTORE MX Configuration Manual.

The keys of the Multimedia Control Panel for use in SISTORE MX are assigned as follows (see Fig. 31 and Tab. 4):

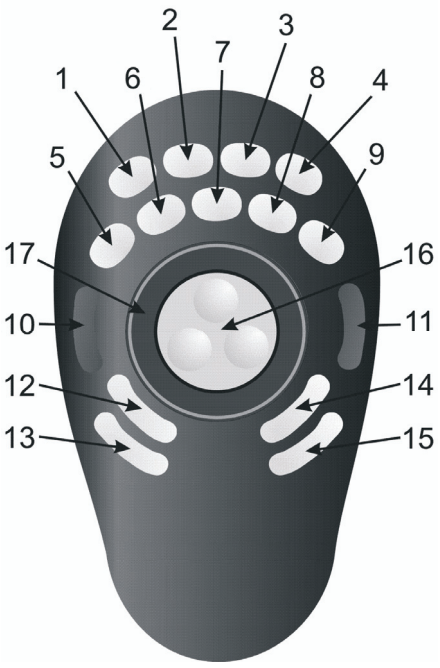



Fig. 31 Keys of the Multimedia Control Panel

| Key | Function in the display mode | Function during playback | Function in the *SISTORE MX* Player |
|---|---|---|---|
| **1** | Next PTZ camera | Go to beginning | Go to beginning |
| **2** | PTZ patrol mode | Timeline zoom-in | - |
| **3** | Next group | Timeline zoom-out | - |
| **4** | Change the split mode | Go to end | Go to end |
| **5** | PTZ Pos 1 | Play backward | Play backward |
| **6** | PTZ Pos 2 | One frame back | One frame back |
| **7** | PTZ Pos 3 | Stop | Stop |
| **8** | PTZ Pos 4 | One frame forward | One frame forward |
| **9** | PTZ Pos 5 | Play forward | Play forward |
| **10** | PTZ left | Reduce playback speed | Reduce playback speed |
| **11** | PTZ right | Increase playback speed | Increase playback speed |
| **12** | PTZ up | Volume down | Volume down |
| **13** | PTZ down | Triplex | Full screen |
| **14** | Full screen | Volume up | Volume up |
| **15** | Switch to playback mode | Switch to live mode | Close |
| **16** | PTZ speed | Single frames | Single frames |
| **17** | PTZ zoom | Fast forward/rewind | Fast forward/rewind |

Tab. 4 Key assignment when connected to SISTORE MX

## 16.5 Dome cameras

Dome cameras can be directly connected over the existing RS 485 bus.

**NOTE:**
For more detailed information please refer to the instruction manual for the corresponding dome camera.

# 17 Playback

In the playback mode you can revise the recorded videos. Alarms and recorded events are saved to a high performance database and can thus be retrieved easily and quickly.

Playback can be started regardless of whether recording is running or not. Recording remains active even if SISTORE MX is in playback level. Playback is possible both in the SISTORE MX application as well as per remote control using the SISTORE MX RemoteView program.

Access to the playback level is achieved by selecting ***Administration*** -> ***Playback*** in the display mode or by clicking the appropriate button in the toolbar.

Prerequisite: You must have been granted playback authorisation by the admin user in the "user management".

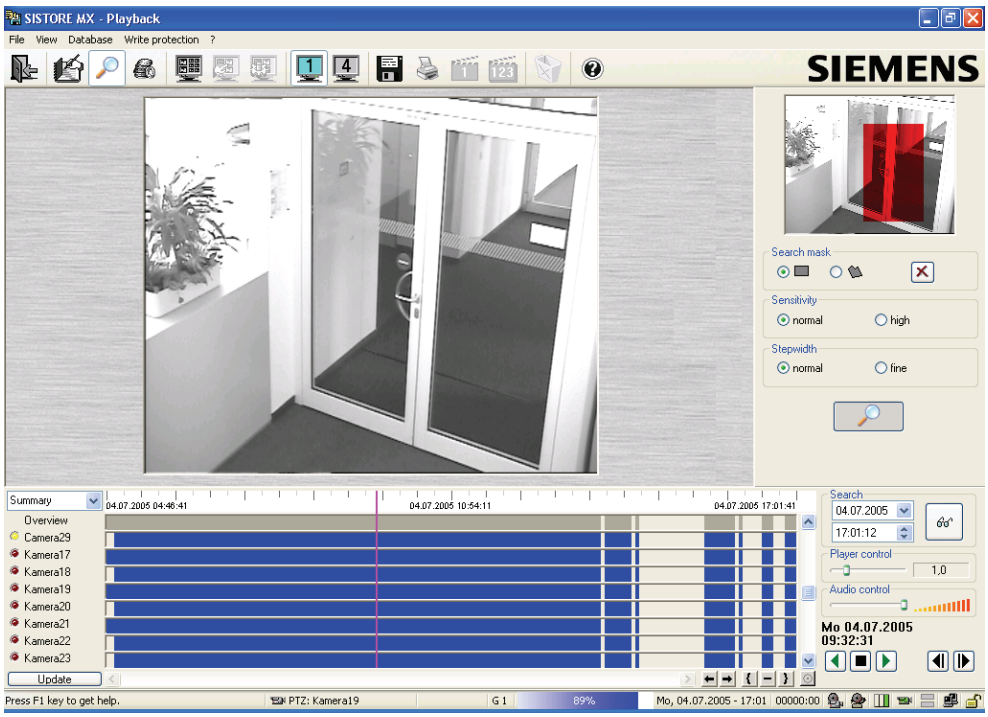



Fig. 32 Playback mode

# 17.1 Description of the menus

## 17.1.1 Menu File

**Start backup now**

A backup is normally started automatically at the preset time. An administrator can however start a backup process at any time using the menu option Start backup now. This menu function is only available if a backup process has been configured but no backup process is currently running.
The beginning and end of a backup process are recorded in the logbook. Errors occurred during backup (e.g. target drive full) will also be recorded in the logbook.

**Cancel backup**

Using this menu option an administrator can stop a backup process. This option is only available when a backup process is currently running.

## 17.1.2 Menu View

**Cash box search**

Show search mask (see Section 17.2: Cash box search).

## 17.1.3 Menu Database

**Delete all recorded data**

This function deletes all recordings. This is possible only for a user with “Delete“ authorisation.

**NOTE:**
The function “Delete all recorded data“ is only available when STOP is set.

**Delete old recorded data**

This function deletes recordings made before a specified time. This may also be carried out automatically at a pre-set point in time with the corresponding configuration.

**Delete marked area**

This function deletes recordings made during the time period selected in the timeline.

**NOTE**

The functions **Delete marked area** and **Delete old recordings** are not available if banking mode has been activated.

**Statistics**

Using this function you can call the statistic of your database and list the following data:

- the period of stored recordings. The point of start and end is displayed in days/hours/minutes
- the number of stored images
- the number of stored files (IGD-files)
- the hard-disk space of all stored files. The actual space on the hard-disk varies (it is larger) from this value. That is because:
  - ➔ in the IGD-files is stored more than the pure images.
  - ➔ the size of the images, as you configure it, will not be reached exactly.
  - ➔ the hard disk is divided into sections with a fixed size.
- the number of alarms which occurred in the defined period.
- the average number of images per day. If the period is < 1 day, a computer forecast takes place.
- the average amount of hard-disk space per day. If the period is < 1 day, a computer forecast takes place. Limits as for all fields in common.
- The average amount of motions per day. If the period is < 1 day, a computer forecast takes place.
- The average amount of alarms per day. If the period is < 1 day, a computer forecast takes place.
- The complete estimated time for recording. Basis for the calculation is the daily amount of hard-disk space and the amount of all hard-disk space, which is available for recording.
- The remaining estimated time for recording. Basis for the calculation is the daily amount of hard-disk space and the amount of all hard-disk space, which is available for recording.

**Cashbox statistics**

Using this function, you can check how many recordings were made during a particular period of time.

**Service**

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

- ***Re-scan and create new database***

  Creates a new database.

- ***Check database***

  Checks that entries are in place. With a negative result, the respective entries are deleted.

- ***Re-index database***

  Re-indexes the database. This makes sense if the system has been running for a while and the recordings were overwritten several times. This re-indexing helps to shorten the search process (display of the timeline when the archive is opened).

- ***Pack database***

  Compresses the database.

- ***Export record database***

  Exports recorded data.

- ***Export message database***

  Exports logbook messages.

- ***Export EXT database***

  Exports an external database, e.g. cash dispenser, cash box or banking data.

- ***Mark all recordings as backed up***

  Recordings that are marked as backed up will not be exported when the next backup is made.

- ***Mark all recordings as not backuped***

  Reverses the function *Mark all recordings as backed up*.

# 17.2 Cash box search

**Activate cash box search**

Select ***Cash box search*** in the ***View*** menu.

– OR –

Click the icon  in the toolbar.

➔ The search mask appears.

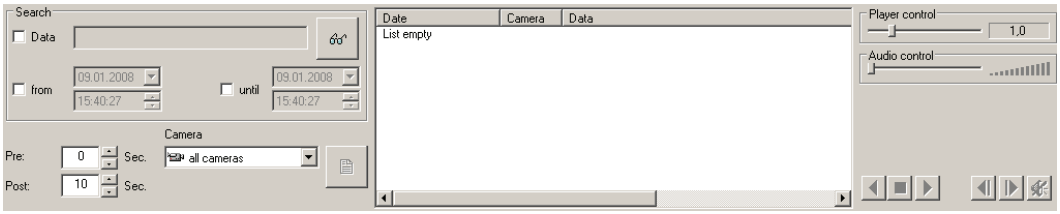



Fig. 33 Cash box search mask

There are several possibilities to search for and display cash data:

- Definition of a time period for the search. Open-beginning and open-ended search is possible.
- Entry of search criteria in the form of freely definable text (sub-string search).
  - The search is case-insensitive.
  - You can enter 2 search words, separated by comma. The system will only search for entries that contain both sub strings.
  - It is also possible to search using wildcards.
- Specification of the cash box whose data is required. You can either select "all" or specify a single cash box.

The search results will be listed in a table where they can be selected. Playback will be started from the selected table entry, plus a preset lead time and a preset follow-up time. At the end of the follow-up time, the sequence associated with the next table entry will be played including the lead time. The table entry that is currently being played is always highlighted.
Any data that was saved in relation to an image will be displayed within the image. Individual images can be exported as jpg or bmp files. The associated cash box data will be saved to a text file (ASCII) under the same file name, and with the file ending .txt. It is also possible to print a picture with text underneath the picture.

**Image recording**

- The term „STORNO“ will trigger an alarm (configurable). Key words that generate an alarm can be configured.
- There is a separate "Cash box" recording mode for configuration of the recording parameters (analogue to „Motion“, „Alarm“, „Holdup“, etc.). „Cash box“ mode has higher priority than "Motion" but lower priority than "Alarm". All typical parameters can be set for the "Cash box" recording mode.
- The "cash box" recording action will be started following the transmission of a key word (e.g. „CANCEL“), or when a data record is received from a cash box and the associated camera is not currently in long-time or motion recording mode.

**Search**

- Definition of a time period for the search; open-beginning and open-ended search is possible.
- Entry of search criteria in the form of freely definable text (sub-string search). It is possible to enter 2 search words, separated by comma. Only entries that contain both sub strings will be displayed.
- The search can also be cash box-related, i.e. as an additional filter criterion besides a time period and a substring you can specify the cash box whose data is required. You can either select "all" or specify a single cash box.
- All search results will be displayed in a table. Time, camera, associated text (same as CDM search)
- Playback will be started from the selected table entry (time), plus a preset lead time and a preset follow-up time (e.g. 10 sec each). At the end of the follow-up time, the sequence associated with the next table entry will be played including the lead time. The table entry that is currently being played is always highlighted.
- It is not possible to perform a search using an alarm ID.
- It is not necessary to play the images of several cameras simultaneously.

**Image display**

Any data that was saved in relation to an image can be displayed either within the image or underneath it.

**Export**

- Export of an individual image as jpg or bmp together with the associated cash box data to a text file (ASCII) under the same file name, and with the file ending .txt
- Images can be printed with text underneath the image
- Export of AVI files: The player must be suited for the application, i.e. it must be capable of reading the exported cash box data and playing back the images with the associated data. This function still needs to be defined precisely. There are two possible ways: a) The cash box data are written to a separate data track of the AVI file (in the same manner as audio data). Alternatively: b) In addition to the AVI file, there will be a text or database file containing the cash box data as well as a reference to the images in the AVI file. In both cases, the player must be capable of evaluating the additional information and displaying the images correctly with the associated data.

# 17.3 Logbook in playback

All relevant messages arising from operation such as for instance alarm messages, starting and stopping of recording, user login/logout, errors etc. are recorded in a logbook. The logbook can be activated or deactivated via the menu ***View*** -> ***Logbook*** or directly by selecting the appropriate button (  ) in the toolbar. The display is at the bottom right of the screen.

When the logbook is displayed, the most recent messages are always displayed, with the most recent of all always at the top of the list. All messages are always given with date and time (hh:mm). Small symbols in front of the messages indicate the message type (e.g. alarm, error, information). All alarms are recorded insofar as the option "Logbook entry" has been selected during configuration of the recording.

In order to make it easier to navigate among the mass of messages, these are divided into groups. These may be displayed or faded out by using filters. The filters are selected either

- via the menu ***View*** -> ***Logbook*** and selection of an appropriate filter or
- by clicking the right mouse button and selecting an appropriate filter out of the context menu.

Using these routines, it is also easily possible to jump to the beginning and end of the list. All filters can be set and changed while the program is being executed. The filter only affects the display of the messages. All the messages are still saved in the database.

Navigation can further be facilitated using logbook-based search. By double-clicking on an alarm entry in the logbook or on a timeline track, the current assignment of the cameras to the playback windows in multi-channel display is cancelled and the camera assigned to the alarm (double-click on logbook entry) or the timeline track is displayed in the window that was selected last.

Once a user has called up any image of an alarm sequence, this alarm will be marked as having been viewed.

Alarms that have been viewed are identified by a different colour in the logbook. Using a special logbook filter, it is possible to display only those alarms which have not been viewed yet.

### Extended logbook entries

A logbook entry is made if a user switches to replay or configuration. If a user changes the configuration of the system it is also recorded in the logbook. Other logbook entries can be switched on via the system configuration.

The figure below shows triplex display mode with activated logbook.

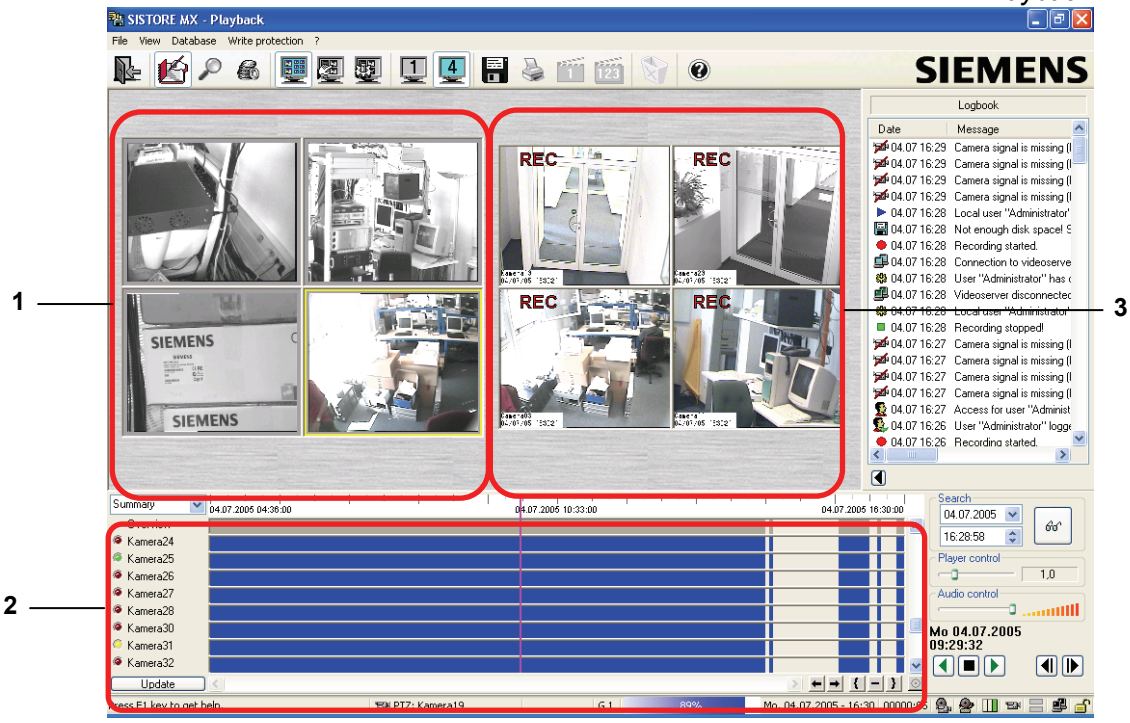



Fig. 34 Triplex display with activated logbook

| | |
|---|---|
| **1** | Display area for recorded image(s) |
| **2** | Timeline |
| **3** | Display windows for live images |

# 17.4 Multi-channel playback

Images from several individually selectable cameras can be displayed at the same time using multi-channel playback. The display on the playback window is analogue to the camera windows of the monitor level (split; see Section 9.7: Video image display modes ). There can be viewed 4 cameras in parallel.

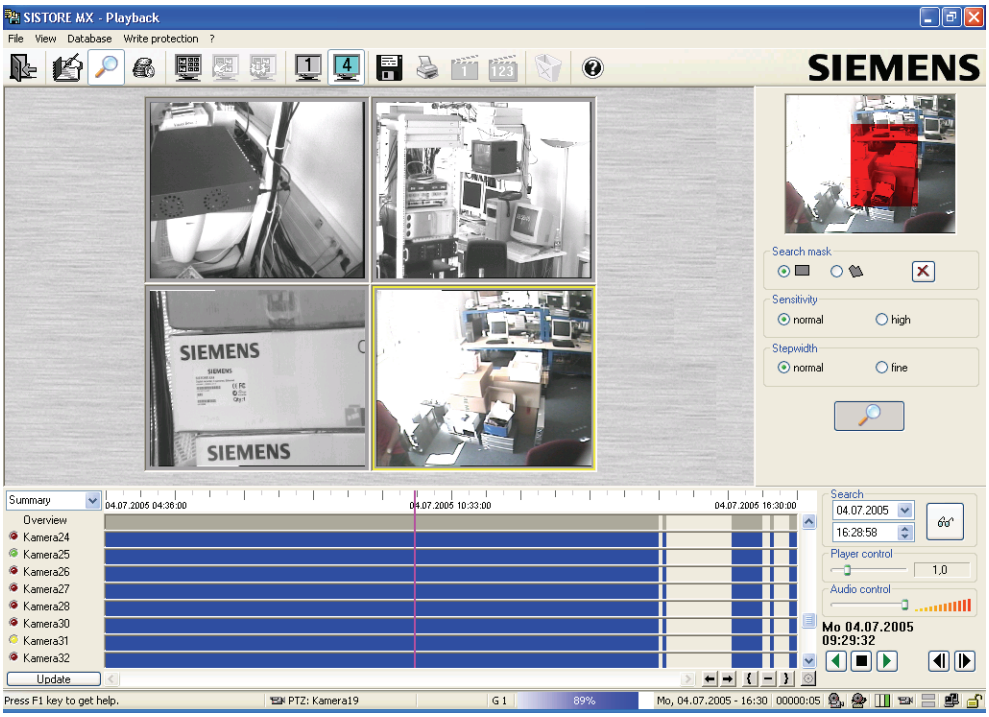



Fig. 35 Multi-channel playback

Buttons for changing within a display matrix can be found in the toolbar – the same as in the monitor level. You can choose between a 1 x 1 display and a 2 x 2 display. The playback windows also contain an optional additional line at the bottom of the display where the file name and frame number can be displayed. This additional line can be switched on and off globally for all playback windows. The standard setting is "switched off". The frame information is switched on using the context menu of the playback window or the menu ***View -> Show frame information***.

There is always an active playback window which is highlighted by marking (yellow surround). The following commands only relate to the marked playback window:

- Print
- Save
- Generate AVI sequence
- Assign a camera

Assigning a camera to a playback window is carried out by clicking on a playback window (which marks it) and then clicking on a camera in the list of the cameras displayed in the timeline (left column). In this way, you can assign a camera a specific position.

Multiple assignments are not possible. If a camera has already been assigned to another playback window, the assignment is altered to the new window which has been entered.

If no camera has been assigned to a window at the start of playback, SISTORE MX will automatically assign the first 4 cameras to the playback windows.

Only the first window (top left) is taken over if you switch back over from multi-channel to single-channel playback.

## 17.5 Reference frame for replay

The reference frame for a respective camera can be opened in all replay modes during replay. This allows the image section of the recorded scene to be compared with the reference frame.
To do so, move the mouse pointer over the replay image, click the right mouse key and select the menu option Show reference frame. This opens the reference image in a new window.

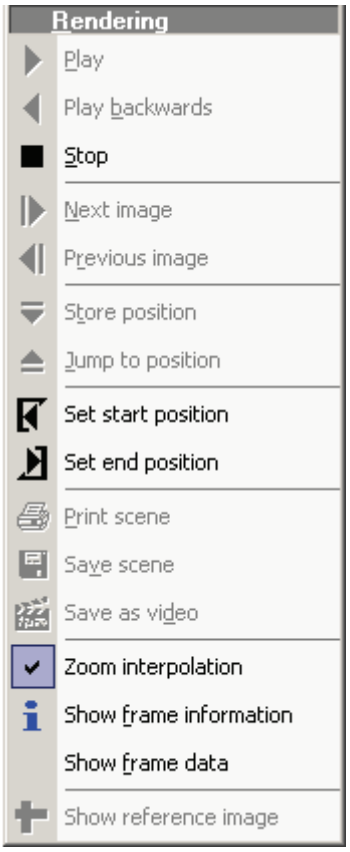



Fig. 36 Context menu at replay

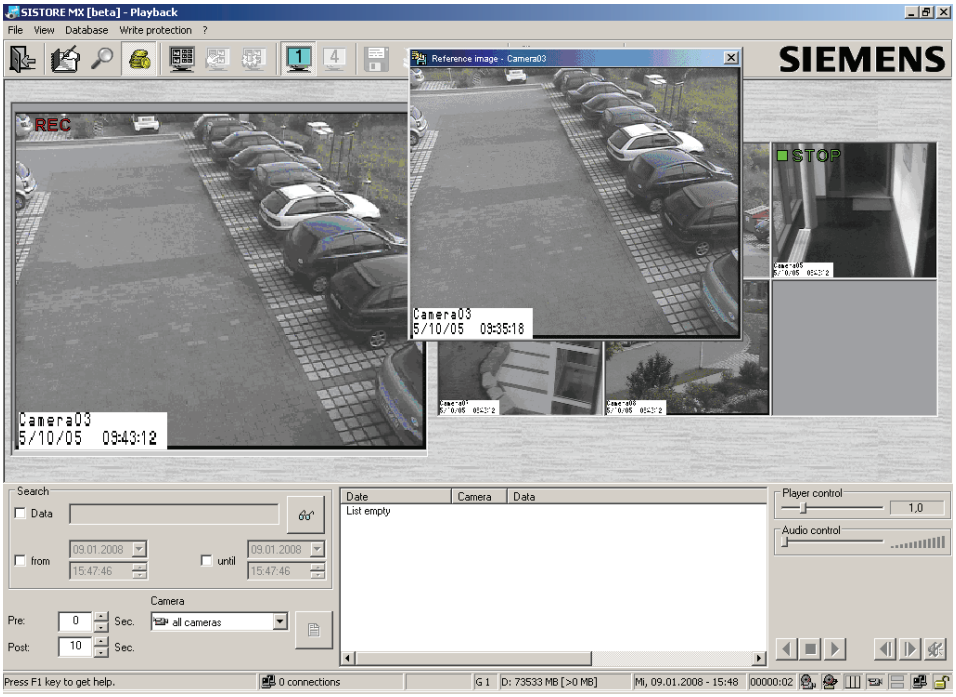



Fig. 37 Reference image at replay

## 17.6 Audio playback

Audio playback is possible locally on the server or via SISTORE MX RemoteView. Audio playback takes place automatically when the following conditions have been fulfilled:

- Only one camera channel is displayed. Multi-channel playback (more than 1 camera at the same time) is not possible with audio.
- The playback speed is set to 1.
- Playback is forwards (not reverse).
- SISTORE MX and the RemoteView Client PC have a compatible sound system (sound card) installed for playback and the drivers of the sound card are correctly installed.

If an audio playback is taking place, a loudspeaker symbol is displayed between the playback control elements to signal this.

Fig. 38 Playback toolbar with speaker symbol

The following should be checked if there is no sound despite the loudspeaker symbol being displayed:

- Are the system's volume regulator (mixer) and possibly the hardware (loudspeaker, amplifier) turned up?
- Is the mixer for playback set correctly?
- Cable connections (sound card to loudspeaker or headphones) OK?
- Was anything audible during recording?
- Audio playback is not possible while recording is taking place. You have to wait about 10 min. until the recorded sound can be reproduced.

The timeline shows a dark green line in the lower section of the camera track if audio is being recorded along with images.

Sound reproduction is synchronized to video playback to a certain extent. Absolute synchronization is not possible because the sound card and the frame grabber record separately from each other.

Extreme system operating conditions can also result in serious image-sound displacement or not all frames being shown (dropped frames) during playback.

## 17.7 Timeline display

The timeline display is a graphic display of the recorded images per camera over a time axis.

One line (track) is displayed for each camera. A maximum of one overview track plus 8 further tracks can be viewed simultaneously. The overview track shows all stored recordings of each camera within the timeline. The overview track enables you to see whether a recording exists from a camera that is not currently supplying an image. The camera names are listed in alphabetical order using the characteristic computer listing principle (e.g. Cam 1, Cam 10, Cam 11, Cam 2, Cam 22, etc.).

The display is scaled over the set time period. Periods themselves can be set in stages (see popup-menu above camera list). There are also the following stages in addition to the setting "Overall duration" which shows the complete period of all stored recordings: "4 weeks", "1 week", "2 days", "1 day", "12 hours", "5 hours", "2 hours", "1 hour", "15 minutes" and "3 minutes".

Each field of the diagram describes a time window of greater or smaller size depending on the set time range. Clicking with the left mouse key on a field provides the corresponding image. In this case, SISTORE MX seeks an image that was recorded at the start of the time period described by the selected field. If no image has been stored at that time, SISTORE MX searches for an image that is as close as possible to the required time (marking "out of focus" at bottom right edge). Slight inaccuracies are possible when clicking on a field depending on the resolution and selected time range.

The actual displayed time is marked in the diagram by a vertical line (colour: magenta). The configuration of the current display can be rearranged using the button Update at bottom left.

The corresponding fields of the diagram are also marked in colour during recording (no marking = no recording). Colour marking is differentiated as follows:

- **Blue:** image recording (at least 1 image) has taken place in the time window defined by this field / Pre-trigger phase
- **Green:** as blue, though with movement detection instead / Post-trigger phase
- **Red:** at least 1 alarm image has been recorded
- **Yellow:** write protected records

A click with the left mouse key and dragging the mouse to the right or left while holding the mouse key pressed causes so-called "scratching". This means that during the movement, the display always shows the image corresponding to the actual mouse position and therefore to the current moment in time.

Scratching is possible locally on the SISTORE MX (server) and on the SISTORE MX RemoteView (client).

If the right mouse button is clicked in the timeline, a square opens up. The size of this square can be altered with the mouse while holding the right mouse button pressed. This square is used to mark a time range. A context-menu is displayed when the right mouse button is released. With this menu, the user can define which functions are to applied to the marked range. The following functions are available for selection:

- Enlarge section
- Generate section as a film sequence (relating to the selected camera)
- Delete range
- Exporting multiple AVI sequences (related to all selected cameras)
- Writing film sequences to CD/DVD
- Burning multiple sequences to CD/DVD
- Protect range
- Release range (remove protection)
- Mark range

The option “Enlarge section”, however, is only possible if the finest setting "3 minutes" has not already been selected.

When zooming in the timeline, SISTORE MX selects the appropriate time range which is the iterative closest to the selected time range from the available stages. The selected range is displayed centrally.

**Marking**

Marking in the timeline is also possible with the following buttons: 

Click in the timeline the starting point of the range to be chosen and then ”**{“** afterwards the final point of the area and then “**}”**. For removing the margins use -.

**Leaping**

Using the button on the right alongside  you can leap to the current time (which is marked by the magenta-coloured vertical line). This button is only active if it is possible to scroll horizontally in the timeline, i.e. if the time range currently being displayed according to the setting stage (see above) does not comply completely with the length of the time range which had actually been saved.

**Capturing**

Click on a moment in the timeline where there are no recordings and the marking leaps to a point with existing recordings which is as close as possible to the required moment in time („capturing“). The set views then show accordingly the images from that point in time.

**Deleting**

The menu Database or the toolbar offer three options for deleting recordings shown in the timeline:

The whole range to be seen in the timeline will be deleted (only possible when STOP is set).

Only the range before a point of time clicked in the timeline will be deleted.

Only a marked range will be deleted.

## 17.8 Database scan

Right next to the timeline you have the possibility of specifying a time (date and time) and starting a database scan. SISTORE MX then shows from the selected camera the image which is the closed to the specified time.

**NOTE:**
The format of the database has changed. The advantages of the new format: a 40% smaller database and therefore less main memory requirement. Better time resolution of events for synchronization of sound and vision.

With the first start, the database of the old format is automatically converted into the new format. Subsequently, an old version of SISTORE MX can no longer read the database and therefore cannot play back any recordings.

With inserted logbook, the corresponding event is marked for each displayed image (see Section 17.11: Logbook). This enables you to establish which entry of the logbook belongs to the displayed image. If, on the other hand, you select an entry in the logbook, the system shows from the selected camera the first image that belongs to the selected event.

## 17.9 Search for changes in videos with SearchMask

A central new function from V2.40 on is the possibility of searching for frame changes in stored recordings.

The search relates to the marked camera with multi-channel reproduction and to the displayed camera with single camera reproduction.

Open the Search dialog box using the ***View*** -> ***Intelligent search*** menu or the button  in the toolbar.

A small picture of the active camera is displayed. Using the mouse and the draw functions known from the configuration of motion detection, the user can now draw a mask. "Rectangle" and "polygon" are available as draw functions. In addition, there is a button for deleting the mask.

If no mask is defined, the complete frame is called up for the search.

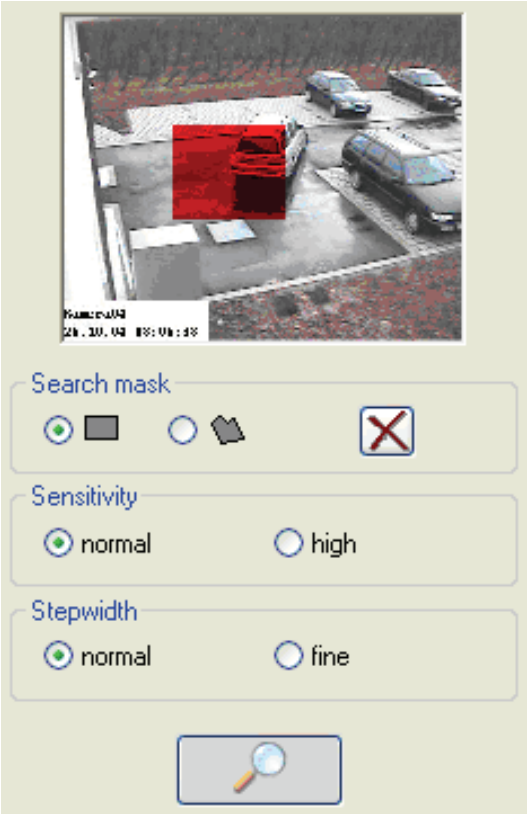



Fig. 39 Search Mask dialog

You can also define the sensitivity of the search as well as the step-width (speed) of the search.

The step-width stipulates whether each frame is to be scanned during the search or whether frames should be skipped. Because frames have to be read out of the video file and decompressed before evaluation can take place, a fine search can take a very great deal of time. With the normal step-width, not every frame is evaluated. The search is faster but short movements may be overlooked.

The search is always carried out at the server. This is why a search can also be carried out without problem via an ISDN connection using SISTORE MX RemoteView. The search, however, is a burden on the server.

A click on  starts the search. As the server can only carry out one search at a time, in multi-client operating mode the search will not start if another user is already carrying out a search. An information message is displayed.

A search always takes place in forward direction, i.e. from an older to a newer point in time. A reverse (backwards) search is not possible. The search can only be started if play is not running and if a starting point has already been entered (a recording frame is displayed in the active window).

If the search was successful, the frame found is displayed. The respective point in time is marked in the timeline. With multi-channel replay, the other cameras show their frames closest to that point in time.

If no frame change is found, the message "No frame found" is displayed at bottom right.

A progress display provides information about search status. The progress bar can make a large jump at the start of the search depending on the type of system. A display of the expected remaining time for the search is not possible.

# 17.10 Triplex operation

Triplex operation means that recording, playback and display of live images is possible simultaneously.

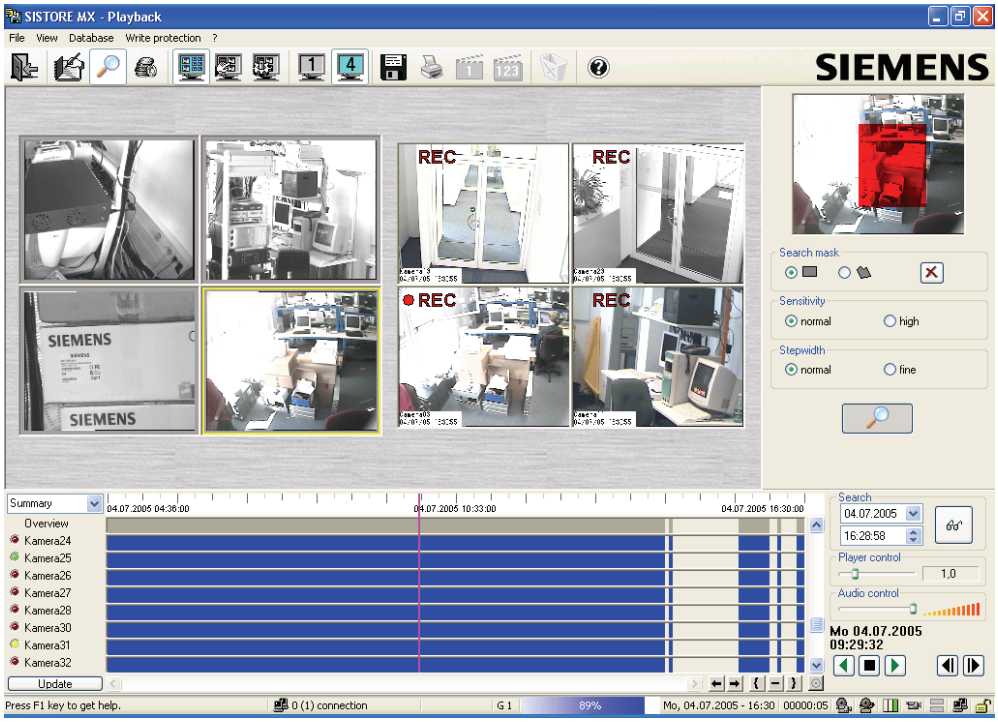



Fig. 40 Triplex operation at playback level

**Display of live images at playback level**

Select the menu sequence ***View*** -> ***Display on*** or click the button  . The setting is stored (though not user-related). Live images are displayed flush left of the logbook or the Search Mask dialog in a column. The image size is QCIF format. The image can be digitally enhanced by double-clicking on it. The number of displayed cameras depends on the VGA resolution of the system. With a resolution of 1024 x 768, 2 cameras are displayed, with a resolution of 1280 x 1024 4 cameras.

If there are more cameras than can be displayed, camera groups are formed as on the monitor level. Switching over from one camera group to another is then carried out manually or automatically in the same way as on the monitor level (menu ***View*** -> ***Next display group***; ***View*** -> ***Intelligent search***).

# 17.11 Logbook

To activate the logbook, click the button  or select the menu sequence ***View*** -> ***Logbook***. It is used for finding and evaluating the video sequences stored in the database, irrespective of whether they are event-triggered recordings, "only with movement" recordings or alarm recordings.

To simplify the revision, different entries may be combined by a filter according to the message type and/or period. Filtering according to the message type is carried out by selecting a type of messages from a list shown in the context-menu of the logbook. The default setting is that no alarm messages are displayed when the playback dialog is called up. If a filter option has been selected, the respective alarm messages will be displayed upon switching to playback mode.

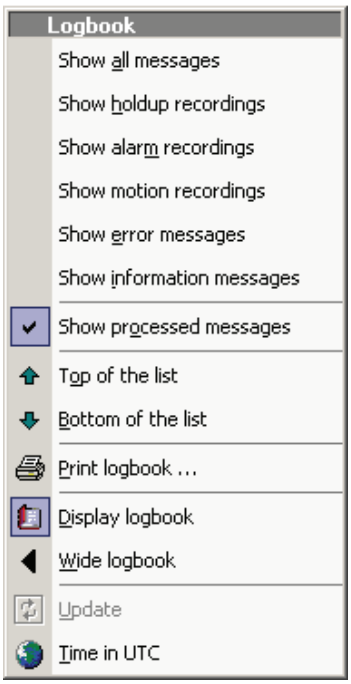



Fig. 41 Filtering options for logbook

| Menu option | Description |
|---|---|
| Show holdup recordings | Display of holdup recordings |
| Show alarm recordings | Display of alarm recordings |
| Show motion recordings | Display of motion recordings |
| Show suspicion recordings | Display of suspicion recordings (active only in banking mode) |
| Show test recordings | Display of test recordings (active only in banking mode) |
| Show error messages | Display of error messages (camera failure) |
| Show information messages | Display of logon / logoff, start / stop procedures |
| Top of the list | Go to the beginning of the logbook |
| Bottom of the list | Go to the end of the logbook |
| Print logbook | Printing of logbook entries |
| Display logbook | Show / hide logbook |
| Wide logbook | Shows an enlarged view of the logbook |
| Update | Update of logbook entries |
| Time in UTC | Conversion to UTC |

Having selected a period or time interval for messages, it is now possible to access the respective video data directly by selecting entries within the “Logbook“ field using the mouse or the keyboard. SISTORE MX then automatically shows all involved cameras for the selected entry in the “Cameras“ field. Having selected the required camera, its picture is shown in the camera window at the start of an event-triggered recording or the respective alarm image at the start of an alarm recording.

## 17.12 Write protection for records

Recordings can be provided selectively with write protection to prevent them from being automatically deleted or overwritten.

To do so, first mark a range in the timeline. To provide recordings with write protection, use either the menu sequence ***Write protection > Protect area*** or the context menu of the Timeline (see Fig. 42). The write protection always applies only to the range previously marked.

➔ A protected range is displayed in yellow in the timeline.

To remove the write protection again, proceed in the same manner.

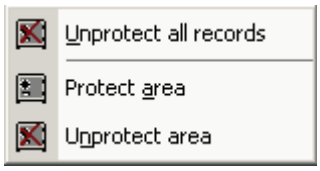



Fig. 42 Menu "Write protection"

For instance, if an event occurs and you are unable to evaluate the sequences right away, you can protect all previous recordings to prevent them from being overwritten.

**NOTE:**
Should SISTORE MX return to you the announcement „Recording stopped - no more disk space available!”, the reason could be the enabled write protection. In that case just remove the write protection. You can write the recorded sequences to CD/DVD before removing the write protection (see Section 17.16.1: Generating film sequences and 17.16.2: Burning image sequences to CD/DVD).

## 17.13 Recorder control

After having selected with the mouse a date from the timeline (see Section 17.7: Timeline display) or an occurrence from the logbook and a corresponding camera, you can play back a video sequence using various playback keys.

Possible functions are Forwards ( ) / Reverse ( ), stop playback ( ), Frame and back( / ). You can also set the playback speed in the „Playback control“ field. See so-called „Scratching“ as well in this respect (see Section 17.7: Timeline display).

## 17.14 Zooming

In order to recognise details better in cases of doubt when revising the images, it is possible to zoom in within a displayed picture. This is done by drawing a window with the left mouse button around the area to be enlarged (Zoom In). The pictured area will then appear within the video display area. There is also the additional option of pressing the right mouse button in the picture window to switch into or out of the ***Zoom-interpolation*** function. For strong zoom, this improves the picture quality. Zooming is also possible during the playback of a video sequence.

**NOTE**
The maximum size an image detail can be enlarged to always depends on the actual image size.

By double clicking the left mouse button within the camera window the image will return to its original size (Zoom Out).

## 17.15 Printing pictures

SISTORE MX in “playback mode” gives you the opportunity to print out individual pictures for further processing. In this procedure the picture currently displayed is the one printed. Click the button  in the toolbar to print an image from the active camera window.

The usual Windows® printer dialog only appears when SISTORE MX is started for the first time. Once the printer has been selected and printing has been confirmed the picture in question is then printed.

Additional information is printed depending on the printing alignment chosen by you. The transaction data in the cash dispenser archive is printed as well. With upright format, the additional information is printed as text underneath the image. With horizontal format, the image is printed without additional information.

If changes are to be made later with the printer dialog, these can be carried out in the playback mode via the menu ***File*** -> ***Printer settings***.

**NOTE**
Printing of pictures from the cash dispenser archive in conjunction with the transaction data is only possible from the server.

## 17.16 Export of pictures

There are several possibilities to export pictures:

- Save video sequences as video file
- Burn images or image sequences to CD/DVD
- Backup
- Save image under any name as BMP or JPG file

  Click the button “Save scene“ in the toolbar. The image currently displayed will be saved.

**NOTE:**
Exporting one picture requires considerably more storage space than recording picture sequences. This is because during export the picture is saved as a complete picture (768 x 576 pixels (PAL)) with high resolution.

## 17.16.1 Generating film sequences

Coherent video sequences can be saved as an AVI file. To do this, select a time period in the timeline (*Cut In* or *Cut Out*), then select a camera.

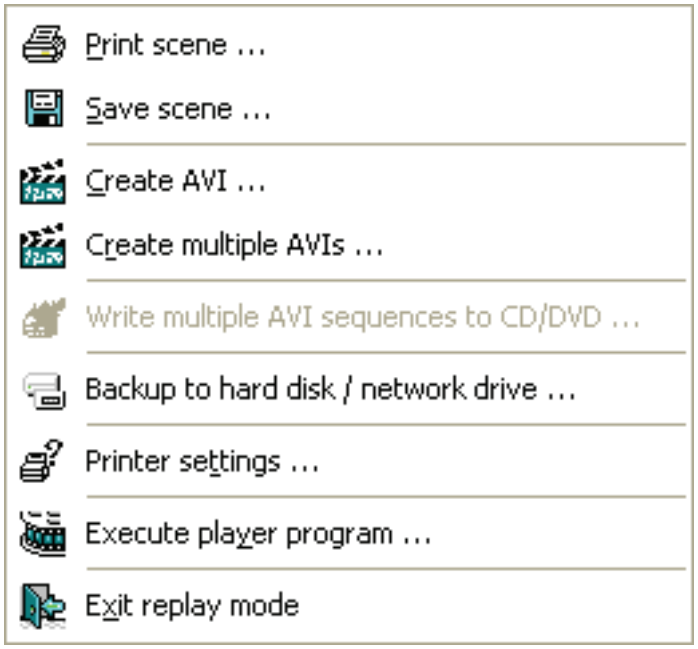



Fig. 43 Playback: menu *File* according to selected range

Exported AVI files are provided with a signature (watermark). This facilitates the detection of manipulations on exported data. The signature is evaluated when the video data is played using the SISTORE Player (see Section 20.8: Signature check).

**NOTE**
When exporting AVI files the relevant sound files - if there are any - will be exported as well. Video sequences with sound are identified in the timeline by an additional dark green line. See Section 17.7: Timeline display.

**NOTE**:
The selected directory must not be on a CD or DVD drive. For information on exporting video sequences see Section 17.16.2: Burning image sequences to CD/DVD.

### Generating individual film sequences

Fig. 44 Playback toolbar with AVI export symbols

Using the "Create AVI" function in the File menu or corresponding symbol in the toolbar, the user can enter a file name and a directory where the film sequence is to be written. The sequence may span several event-triggered and alarm recordings.

**1.** Click the button.

➔ The dialog box “Save As” appears.

You can now export the video sequence. Whenever there is a change in resolution or the preset max. file size has been reached, SISTORE MX splits the sequence into several files. The max. file size can be set between 1.44 MB and 2 GB.

**Generating multiple film sequences**

With multiple export, the user selects a directory where the exported AVI sequences are to be stored, specifies the max. permitted file size and stipulates a base file name.

The base file name is automatically extended by "_xxxxxxxx" by the system, whereby "xxxxxxxx" stands for the name of the camera.

A multiple export via SISTORE MX RemoteView is also possible insofar as the connected server supports multiple export (i.e. as of server version 2.45). If not, SISTORE MX RemoteView does not offer the option of "Create multiple AVIs…".

It is also possible to generate a CD/DVD with all exported sequences. (see Section 17.16.2: Burning image sequences to CD/DVD)

**NOTE:**
From version 2.35 on, SISTORE MX saves all files as *.k26 files instead of *.avi files. The SISTORE player makes no difference between these two file types. The *.k26 files can however not be reproduced using other movie player models (data protection of the SISTORE MX video files!). From Version 2.45 on, the *.k26 files can be converted into *.avi format. These can be reproduced using most of the commercially available movie players.

To allow the files to be displayed on another Windows PC, the SISTORE player is exported together with the sequences to any CD/DVD that is generated.

## 17.16.2 Burning image sequences to CD/DVD

**NOTE**
For more information on exporting image sequences using an external CD burner, see Section 17.16.4: Exporting image sequences to CD/DVD using an external USB burner.

Exported image sequences can now also be stored directly on a CD-R, CD-RW or DVD-R/DVD-RW.

An important feature of the SISTORE MX is the possibility of automatically requesting several blank disks one after the other if more image sequences are to be written to disk than would fit on one blank. When generating AVI sequences, SISTORE MX does not check whether the generated sequence fit onto one disk. We recommend always having an adequate number of CD or DVD blank disks available.

**NOTE:**
RW blank disks must not be formatted. SISTORE MX does not use any packet writing.
It is possible to delete RW media with SISTORE MX.

For safety reasons, SISTORE MX generally writes at max. 8 x CD/DVD speed. If the writing speed is too high, the CD writer requires too many system resources which can lead to a breakdown in the recording frame rate with SISTORE MX or in extreme cases to watchdog errors of the recording hardware.

SISTORE MX supports writing of several sessions. For this reason, SISTORE MX writes exclusively in multi-session format and never closes sessions. There is a possibility of errors in reading the media if using older CD or DVD drives that are not able to support this format.

If there are already files on the CD/DVD with the same name as those to be added, SISTORE MX will not overwrite the existing files. Instead, the new files will be provided with a name suffix "_$xxx" whereby "xxx" stands for a serial number commencing with "000".

SISTORE MX automatically writes the SISTORE player (sistoreplayer.exe) onto each CD/DVD. This cannot be prevented by the user. The SISTORE player enables exported sequences to be played back on any Windows® PC.

SISTORE MX offers 2 possibilities for writing files to CD/DVD:

- Write all files of a directory to CD/DVD
- Export film sequences directly to CD/DVD

At the replay level, the user will find three entries in the File menu that relate to CD/DVD drives. This menu is only visible if the above-mentioned requirements have been fulfilled.

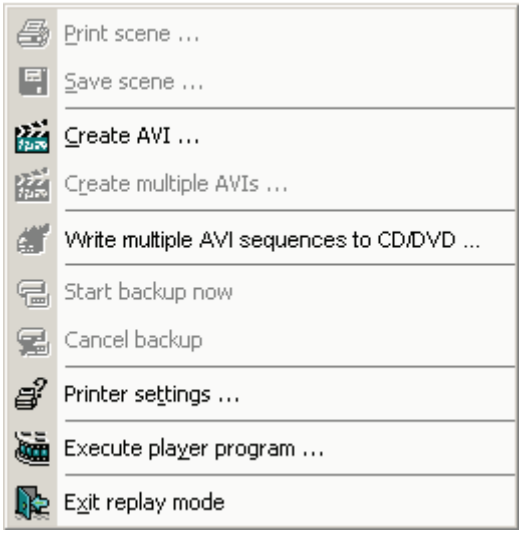



Fig. 45 File menu with CD/DVD writer support

### 17.16.3 Exporting image sequences to CD/DVD using an integrated DVD burner

If your SISTORE MX device has an integrated CD/DVD burner, all relevant menu options are activated and you can start burning your disk (see Section 17.16.5 Writing files of a directory to CD/DVD ).

### 17.16.4 Exporting image sequences to CD/DVD using an external USB burner

1. Select ***Exit*** in the ***File*** menu.
   ➔ The SISTORE MX application is closed.
2. Connect the external DVD burner to a free USB port.
3. Wait for a moment to allow the system to detect and install the external hardware.
4. Start the SISTORE MX application by clicking the icon ***SISTORE MX*** on your desktop.
   ➔ The menu item ***Write multiple AVI sequences to CD/DVD …*** is now active.
   ➔ You can start writing to CD.

### 17.16.5 Writing files of a directory to CD/DVD

The user has to select a directory. All files that are in that directory are written to disk. Further disks are automatically requested if the size of the medium is not large enough.

The user can stipulate whether the written files should be deleted after being written to disk.

A special dialog is visible during the writing process. This prompts the user for further action or displays the progress of the writing process:

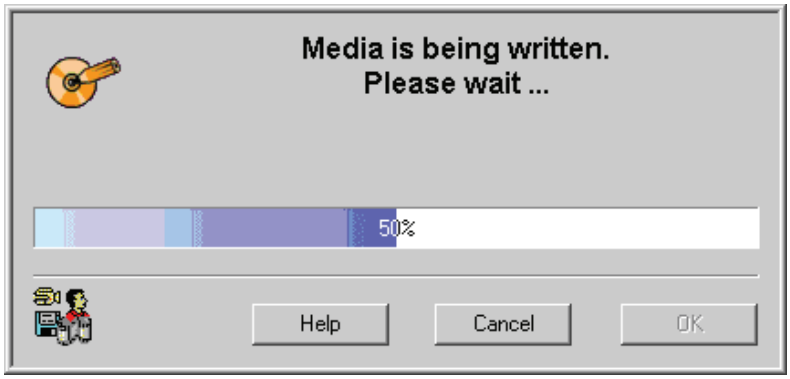



Fig. 46 Writing to CD/DVD

The function "Write directory to CD/DVD" can be used, for example, if several AVI exports are necessary from one directory (exporting several cameras or different periods).

In SISTORE MX RemoteView, this menu option can be found in the ***File*** menu.

## 17.16.6 Writing film sequences to CD/DVD

The operation of this function corresponds with the previous export of a film sequence with the difference that following the export of the files (which are always written to the hard disk first), the files are written to disk and then deleted.

The period marked in the timeline is exported from the active camera (yellow surround). This function can also be called up using the context menu of the timeline.

SISTORE MX automatically requests additional disks if the exported film sequence is too large to fit on one disk.

This function is not available in SISTORE MX RemoteView.

## 17.16.7 Writing multiple film sequences to CD/DVD

Several film sequences from all marked cameras (max. 4 cameras) are generated and written to CD/DVD immediately.

SISTORE MX automatically requests additional disks if the exported film sequence is too large to fit on one disk.

This function can also be called up using the context menu of the timeline.

### 17.16.8 Backup

A backup of recordings, similar to the raw data extraction with SISTORE MX RemoteView, can be carried out in the replay level of the SISTORE MX server for a prescribed period and a list of cameras.

A time range must be marked in the time line for this. Use the menu ***File*** -> ***Backup on hard disk / Network ...*** to open a dialog where the backup directory has to be specified. A backup is possible during current recording.

**NOTE:**
A backup is always file-oriented, i.e. only complete video files can be copied. For this reason, a backup usually contains more images than has been specified by the range marking in the timeline.

Depending on the utilization of the system (number of cameras to be recorded) and the number and size of the files to be saved, the backup process may take up to one hour.

## 17.17 Export of CDM data

There are several possibilities to export cash dispenser images:

- Print scene

  The image currently displayed will be printed.

- Save scene as BMP or JPG file

  When saving individual images (bmp or jpg), an additional ASCII file is created which contains the relevant cash dispenser data as text. The data of each field is written to a separate line in the following form: "*notifier: value*" (without quotations marks).

- Save film sequence as AVI file

  When exporting cash dispenser recordings to AVI files with, only one event (alarm ID) can be exported per AVI file. This is because only one event can be selected in the cash dispenser playback dialog at a time, as opposed to playback from the timeline where several events can be combined. AVI export is also possible from the RemoteView client.

- Remote raw data extraction

  Remote raw data extraction is always started from the timeline (selection of a time range). Cash dispenser recordings will also be extracted. The cash dispenser recordings can afterwards be viewed offline on the SISTORE MX RemoteView client.

# 17.18 CDM replay

If the options **Bank mode** and **Cash dispenser** were activated in the configuration mode, the option „Search for CDM data“ is displayed (additionally) in the toolbar.

Fig. 47 Replay toolbar with activated banking mode

Click the button **Search for CDM data**  .

➔ The replay window changes. The Timeline display is removed and the CDM Search is inserted. It is not possible to display the logbook in this mode.

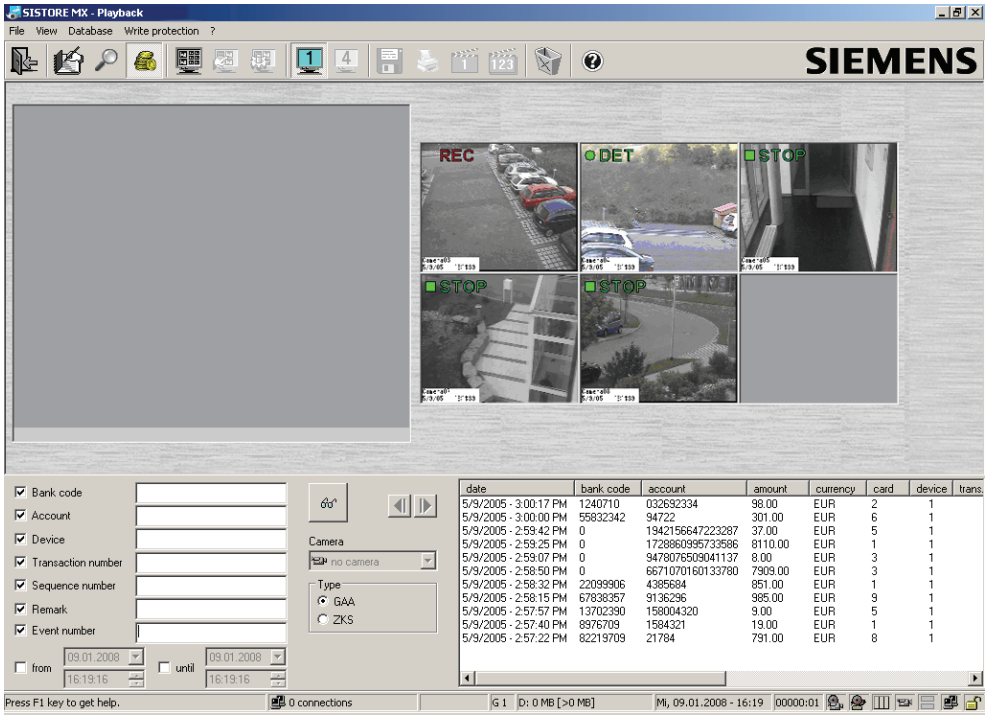



Fig. 48 Replay with activated CDM Search

The following search options are available in the left section of the CDM Search:

- Bank code
- Account no.
- Device
- Transaction number
- Sequence no.
- Remark
- Event number
- Date from
- Date until

Each of these search fields can be activated individually and provided with a search option. The activated search fields are AND-linked for the search. This means that all specified search criteria have to be fulfilled.

After entering the search options, the search is triggered using the button Search  .

The result of the search appears on the right in the output field. With more than 250 search results, a message appears that too many search results have been found and that you have to refine your search.

The display of the search results can be sorted upwards or downwards by clicking on the output field of the headings.

After an entry has been marked in the results list, all cameras that have supplied images for this process are displayed in the Camera field.


Fig. 49 Camera selection

Once a camera has been selected, the image data is displayed. This is always displayed as individual images. It is possible to scroll forward and back a picture at a time using the  button. The image currently being displayed can be printed and saved using the Print scene and Save scene buttons. Saving frame sequences is not possible

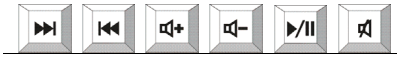
CDM replay is also available under SISTORE MX RemoteView.

# 18 Key combinations in SISTORE MX

SISTORE MX offers you the opportunity to control various functions in the display mode, in the playback mode, and in the SISTORE Player using key combinations (see Tab. 5).

**NOTE**

The following keys listed in the table below are not available on the SISTORE MX USB keyboard (see Section 5: Details for ordering):



| Key / key combination | Function in the display mode | Function in playback mode | Function in the SISTORE Player |
|---|---|---|---|
| Ctrl + Alt + 1 | PTZ Pos 1 | Play backward | - |
| Ctrl + Alt + 2 | PTZ Pos 2 | One frame back | - |
| Ctrl + Alt + 3 | PTZ Pos 3 | STOP | - |
| Ctrl + Alt + 4 | PTZ Pos 4 | One frame forward | - |
| Ctrl + Alt + 5 | PTZ Pos 5 | Play forward | - |
| Ctrl + Alt + 6 | Next PTZ camera | Go to beginning | - |
| Ctrl + Alt + 7 | PTZ patrol mode | Timeline zoom-in | - |
| Ctrl + Alt + 8 | Next group | Timeline zoom-out | - |
| Ctrl + Alt + 9 | Change split mode | Go to end | - |
| Ctrl + Alt + ← | PTZ left | Reduce playback speed | - |
| Ctrl + Alt + → | PTZ right | Increase playback speed | - |
| Ctrl + Alt + ↑ | PTZ speed + | Single frame forward | - |
| Ctrl + Alt + ↓ | PTZ speed - | Single frame back | - |
| Ctrl + Alt + R | Show server version (RemoteView only) | - | - |
| Ctrl + ⇧ + Alt + 1 | Start PTZ zoom-in | Speed x 0.1 | 0.5 images per second |
| Ctrl + ⇧ + Alt + 2 | Start PTZ zoom-in | Speed x 0.5 | 2 images per second |
| Ctrl + ⇧ + Alt + 3 | Start PTZ zoom-in | Speed x 1 | 10 images per second |

*Key combinations in SISTORE MX*

| Key combination | Function in the display mode | Function in playback mode | Function in the SISTORE Player |
|---|---|---|---|
| Ctrl + ⇧ + Alt + 4 | Start PTZ zoom-in | Speed x 3 | 15 images per second |
| Ctrl + ⇧ + Alt + 5 | Start PTZ zoom-in | Speed x 7.5 | 25 images per second |
| Ctrl + ⇧ + Alt + 6 | Start PTZ zoom-in | Speed x 20 | 50 images per second |
| Ctrl + ⇧ + Alt + 7 | Start PTZ zoom-in | Speed x 50 | 200 images per second |
| Ctrl + ⇧ + Alt + ← | - | Play backward | - |
| Ctrl + ⇧ + Alt + → | - | Play forward | - |
| Ctrl + ⇧ + Alt + A | PTZ up | Volume down | - |
| Ctrl + ⇧ + Alt + B | PTZ down | Triplex | - |
| Ctrl + ⇧ + Alt + C | Full screen | Volume up | - |
| Ctrl + ⇧ + Alt + D | Switch to playback mode | Switch to live mode | - |
| Ctrl + ⇧ + Alt + E | Stop PTZ zoom-in/-out | Stop | - |
| Ctrl + ⇧ + Alt + S | Signal status | - | - |
| Ctrl + ⇧ + 1 | Start PTZ zoom-out | Speed x 0.1 | - |
| Ctrl + ⇧ + 2 | Start PTZ zoom-out | Speed x 0.5 | - |
| Ctrl + ⇧ + 3 | Start PTZ zoom-out | Speed x 1 | - |
| Ctrl + ⇧ + 4 | Start PTZ zoom-out | Speed x 3 | - |
| Ctrl + ⇧ + 5 | Start PTZ zoom-out | Speed x 7.5 | - |
| Ctrl + ⇧ + 6 | Start PTZ zoom-out | Speed x 20 | - |

| Key combination | Function in the display mode | Function in playback mode | Function in the SISTORE Player |
|---|---|---|---|
| Ctrl + ⇧ + 7 | Start PTZ zoom-out | Speed x 50 | - |
| Ctrl + ⇧ + M | - | Select time period | - |
| Ctrl + ← | - | - | Single frame forward |
| Ctrl + → | - | - | Single frame back |
| Ctrl + F | Full screen | - | Full screen |
| Ctrl + G | Next group | - | - |
| Ctrl + Space | - | - | Play backward |
| Space | - | - | Play forward |
| Alt + 1 | Change split mode | - | - |
| Alt + 2 | Change split mode | - | - |
| Alt + 3 | Change split mode | - | - |
| Alt + 4 | Change split mode | - | - |
| Alt + 5 | Change split mode | - | - |
| Alt + 6 | Change split mode | - | - |
| Alt + 7 | Change split mode | - | - |
| Alt + 8 | Change split mode | - | - |
| Alt + 9 | Change split mode | - | - |
| Alt + L | Logbook comment | - | - |
| Alt + X | End program | - | - |
| 1 ... 9 | Move to PTZ position 1...9 | - | - |
| ↑ | PTZ up | - | Increase playback speed |
| ↓ | PTZ down | - | Reduce playback speed |
| ← | PTZ left | - | Single frames forward |
| → | PTZ right | - | Single frames back |
| + | - | Increase playback speed | - |
| - | - | Reduce playback speed | - |
| A | - | - | Audio playback |
| S | - | - | Stop |
| F1 | Help | Help | - |

*Key combinations in SISTORE MX*

| Key combination | Function in the display mode | Function in playback mode | Function in the SISTORE Player |
|---|---|---|---|
| Pos 1 | - | - | Go to beginning |
| End | - | - | Go to end |
| Page up | - | - | Volume up |
| Page down | - | - | Volume down |
| ↵ | - | Play/Pause | - |
| 🔊+ | - | Volume up | - |
| 🔊− | - | Volume down | - |
| 🔇 | - | Mute | - |
| ⏭ | - | One frame forward | - |
| ⏮ | - | One frame back | - |
| ▶/⏸ | - | Play/Pause | - |
| 1 **(Numeric keypad)** | PTZ left down | - | - |
| 3 **(Numeric keypad)** | PTZ right down | - | - |
| 5 **(Numeric keypad)** | PTZ center | - | - |
| 7 **(Numeric keypad)** | PTZ left up | - | - |
| 9 **(Numeric keypad)** | PTZ right up | - | - |
| 0 **(Numeric keypad)** | PTZ focus near | - | - |
| + **(Numeric keypad)** | PTZ zoom in | - | - |
| - **(Numeric keypad)** | PTZ zoom out | - | - |
| / **(Numeric keypad)** | PTZ focus near | - | - |
| * **(Numeric keypad)** | PTZ focus far | - | - |
| , **(Numeric keypad)** | PTZ focus far | - | - |

Tab. 5 Key combinations in SISTORE MX

# 19 SISTORE MX RemoteView

Via SISTORE MX RemoteView you can easily display live images or play stored recordings. SISTORE MX here functions as a server, with SISTORE MX 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.

Up to 10 SISTORE MX devices can be accessed via RemoteView.

## 19.1 Starting SISTORE MX RemoteView

**1.** Start SISTORE MX RemoteView using the desktop icon.

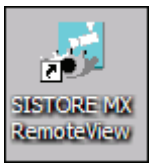



Fig. 50 Desktop Icon SISTORE MX RemoteView

## 19.2 Program window SISTORE MX RemoteView

➔ After the SISTORE MX RemoteView is started, the SISTORE MX RemoteView dialog appears:

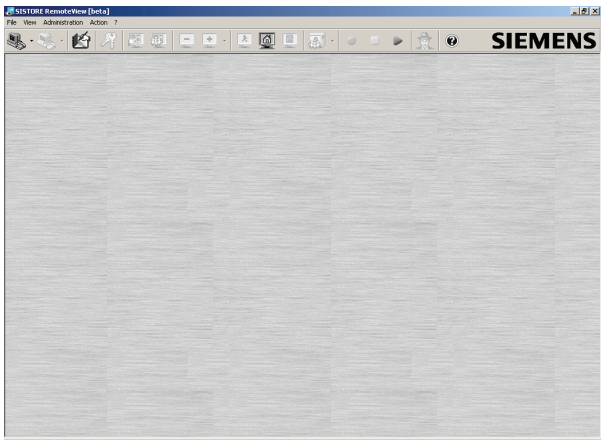


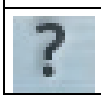

Fig. 51 SISTORE MX RemoteView

This is similar in appearance and function, in reduced form, to that of SISTORE MX.

You now can decide whether to make a connection to SISTORE MX or to open an existing database (see Section 19.16 Local revision of existing databases).

# 19.3 SISTORE MX RemoteView toolbar

Nearly all the functions of the software can be invoked using the SISTORE MX RemoteView toolbar. Buttons with the same functions in SISTORE MX RemoteView have the same appearance as in SISTORE MX.

| | |
|---|---|
|  | Connect remote<br>See Section 19.5: Connecting to SISTORE MX. |
|  | Disconnect remote |
|  | Show logbook<br>See Section 19.4: Opening the logbook in SISTORE MX RemoteView |
|  | Change user |
|  | Next group<br>Manual switching to the next camera group. See "camera groups" in Section 9.6: Video display area |
|  | Automatic scan<br>Automatic switching to the next camera group. See "camera groups" in Section 9.6: Video display area. |
|  | Show less cameras |
|  | Show more cameras. Clicking the arrow opens a window showing the possible screen splits. |
|  | Show event view<br>In the event of an alarm a message will be displayed. |
|  | Cameras on monitor<br>See Section 10.10 Output of video image on analog monitor . |
|  | Audio on/off |
|  | Start recording |
|  | Stop recording |
|  | Playback<br>In the playback mode you can revise the recorded videos. |
|  | Virtual guard<br>The virtual guard establishes time-controlled, automatic connection to various recording systems in a specific order |
|  | Help |

## 19.4 Opening the logbook in SISTORE MX RemoteView

While SISTORE MX RemoteView is running, all occurring events are recorded in the logbook. The logbook can be opened using the button  . This button is only active when RemoteView is not connected to a server.
Clicking the right mouse button opens the logbook context menu.


Fig. 52 SISTORE MX RemoteView – Logbook context menu

The context menu offers the following options:

- Move to top of bottom of the list
- Print logbook
- Export logbook
- Show time in UTC

## 19.5 Connecting to SISTORE MX

**NOTE**
SISTORE MX RemoteView can be simultaneously connected to several MX servers (max.10).

Prerequisite:

- The SISTORE MX RemoteView application software has been started.

There are two possible ways to set up a connection:

1. Click the arrow next to the button  ***Connect*** in the toolbar.
   ➔ A menu showing the SISTORE MX servers that have been configured appears.
2. Click on the desired connection.
   ➔ The connection will be established.

**NOTE**
The upper section of the menu displays the links to up to 10 SISTORE MX servers that were dialled in last. This function is not available during initial connection setup as the list only shows a history of the connections. The bottom section of the menu shows the first 10 entries of the address book. The entries will be displayed in the order of priorities you have defined in the address book.

– Or –

1. Open the address book.
2. Select the desired connection.

3. Click on ***Connect***.

   – Or–

   Left-click on the desired server icon on the map (see Fig. 53).

   ➔ The connection will be established.

   ➔ All the maps that are available on the server will be transferred to *SISTORE MX RemoteView*.

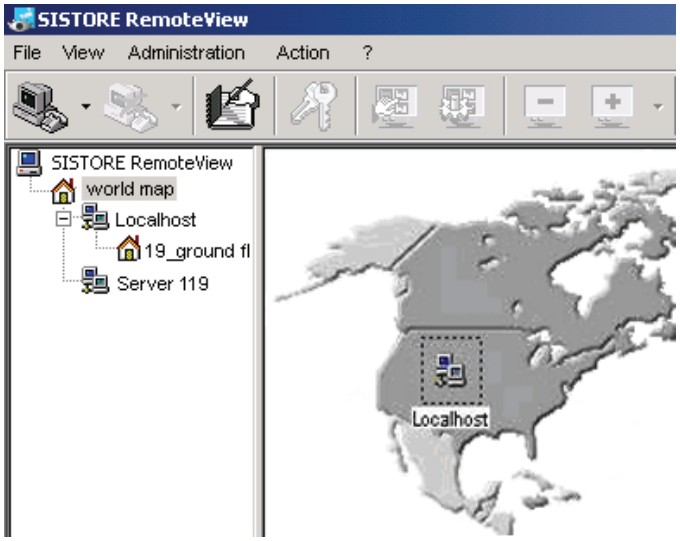



Fig. 53 Server connections

## 19.5.1 Open address book

Prerequisite

- The SISTORE MX RemoteView application software has been started.

**Opening the address book**

There are two possible ways to open the address book:

1. Click the button **Connect** in the toolbar.

   ➔ The **SISTORE MX RemoteView address book** dialog box is opened.

   – OR–

   Select the menu sequence **File** -> **Connect**.

   ➔ The **SISTORE MX RemoteView address book** dialog box is opened.

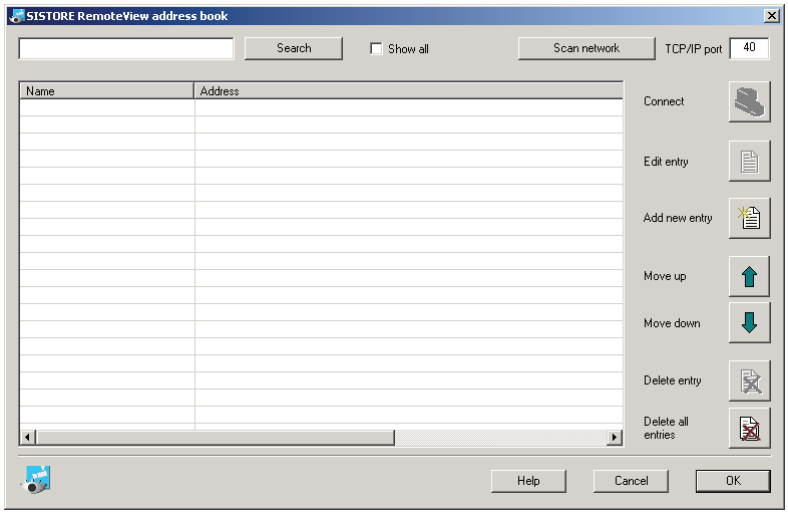



Fig. 54 SISTORE Remote View address book

## 19.5.2 Show all

Prerequisites

- The SISTORE RemoteView application software has been started.
- The address book is opened in the SISTORE MX RemoteView application software.

Activate the option ***Show all***.

➔ The fields ***Name***, ***Address***, ***Duration, Cameras, Server name/IP address, Port, RAS,*** and ***Phone number*** will be displayed.

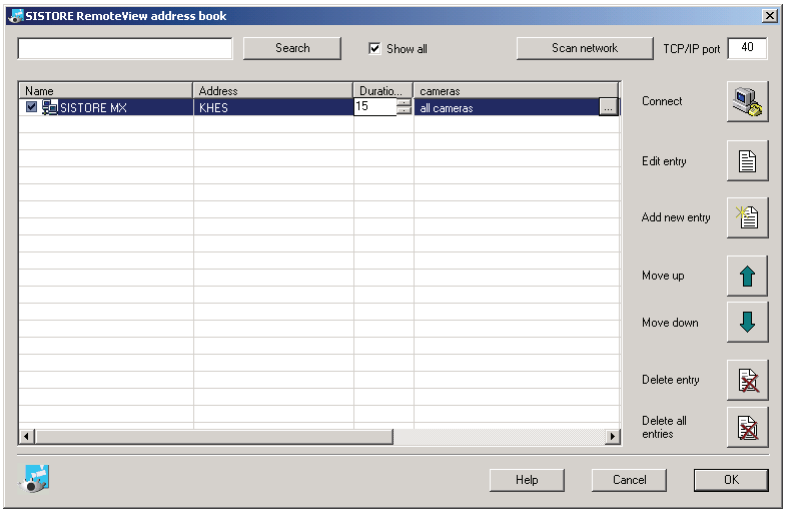



Fig. 55 SISTORE MX RemoteView address book

**NOTE:**

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.

The **Cameras** field is a function of the virtual guard. Here you can define the cameras whose live images are to be displayed ("manual connection"). If "no camera" is selected, no live images will be displayed.

In the **Name** field you can activate the **Virtual guard** function for the particular connection.

## 19.5.3 Add entry

Prerequisites

- The SISTORE MX RemoteView application software has been started.
- The address book is opened in the SISTORE MX RemoteView application software.
  See Section19.5.1 Open address book, *page 96*.

**1.** Click the ***Add new entry*** button  .

➔ The ***SISTORE RemoteView address book entry*** dialog box is opened.

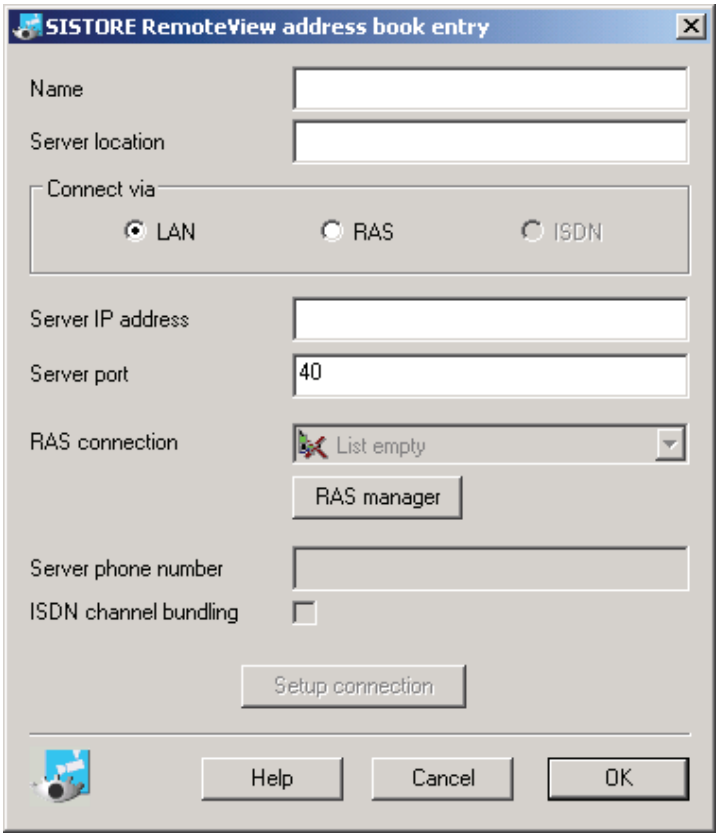



Fig. 56 SISTORE RemoteView address book entry dialog

**2.** Fill in the text fields **Name**, **Server IP address**, **Server port**.

**NOTE**

**1.** 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.

**2.** Only ciphers and the symbols ( ) and - can be entered into the text field **Server phone number**.

**3.** Filling in the field **Server location** is optional.

**3.** Select the desired connection type in the **Connect via** section. Make sure that the necessary configurations have been made for each connection type.

**Connection set-up**

1. Click the ***Connect*** button.
   ➔ The connection will be established.

The progress display for the status of data transmission is located in the middle section of the status line. You can switch over from the progress of the transmission and the display of the current data rate by clicking with the mouse in the window. The progress display is no longer visible when 100% has been reached.

**NOTE**
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.

2. Enter a user ID and click **OK**.

## 19.5.4 Editing entries

Prerequisites:

- The SISTORE MX RemoteView application software has been started.
- The address book is opened in the SISTORE MX RemoteView application software.
  (See Section 19.5.1 Open address book, *page 96*)

1. Click the  ***Edit entry*** button.
   ➔ The ***Address book entry*** dialog box appears.

Please also refer to Section "19.5.3: Add entry", *page 97.*

## 19.5.5 Deleting entries

Prerequisites

- The SISTORE MX RemoteView application software has been started.
- The address book is opened in the SISTORE MX RemoteView application software.
  (See Section 19.5.1 Open address book, *page 96*)

**Deleting individual entries**

1. Click on the text field of the entry to be deleted.
2. Click the  ***Delete entry*** button.
3. Answer ***Yes*** in the confirmation dialog.
   ➔ The entry will be deleted.

**Deleting all entries**

1. Click the ***Delete all entries*** button.
2. Answer ***Yes*** in the confirmation dialog.
   ➔ All entries will be deleted.

### 19.5.6 Sorting entries

You can stipulate the sequence of the connections using the buttons ***Move up*** and ***Move down***. This order of priorities will also be used by the virtual guard and for rapid connection set-up.

Prerequisites:

- The SISTORE MX RemoteView application software has been started.
- The address book is opened in the SISTORE MX RemoteView application software.

  See Section 19.5.1 Open address book, *page 96*.

1. Click the button **Move up**.
   ➔ The entry will be moved up.
2. Click the button **Move down**.
   ➔ The entry will be moved down.
3. If you need to sort several entries, repeat steps 1 and 2 as necessary.

Sorting by clicking the column header above the address book server list is a new feature. The sequence of the virtual guard tours will however be changed.

### 19.5.7 Select cameras

Using the button  , you can select the cameras whose live images are to be displayed after a connection has been set up.

**NOTE:**
In the SISTORE MX RemoteView application software, a maximum of 36 cameras (6x6 matrix) can be displayed simultaneously. In the live picture, in contrast to SISTORE MX the titles “REC“, “STOP“ or “DET“ are not available.

Prerequisites:

- The SISTORE MX RemoteView application software has been started.
- The address book is opened in the SISTORE MX RemoteView application software.

  See Section 19.5.1 Open address book, *page 96*.

1. Click on the desired connection.
   ➔ The button  appears.
2. Click the  button.
   ➔ The ***Select cameras*** dialog box appears.
   ➔ A connection to the selected server will be established in the background.
3. The "Please-wait" dialog window appears.

The cameras in the ***Select cameras…*** dialog box are displayed differently depending on whether it was possible to set up a connection to the server or not

- 1st possibility: The connection to the server has been established.

  The cameras configured on the server are listed (with name).

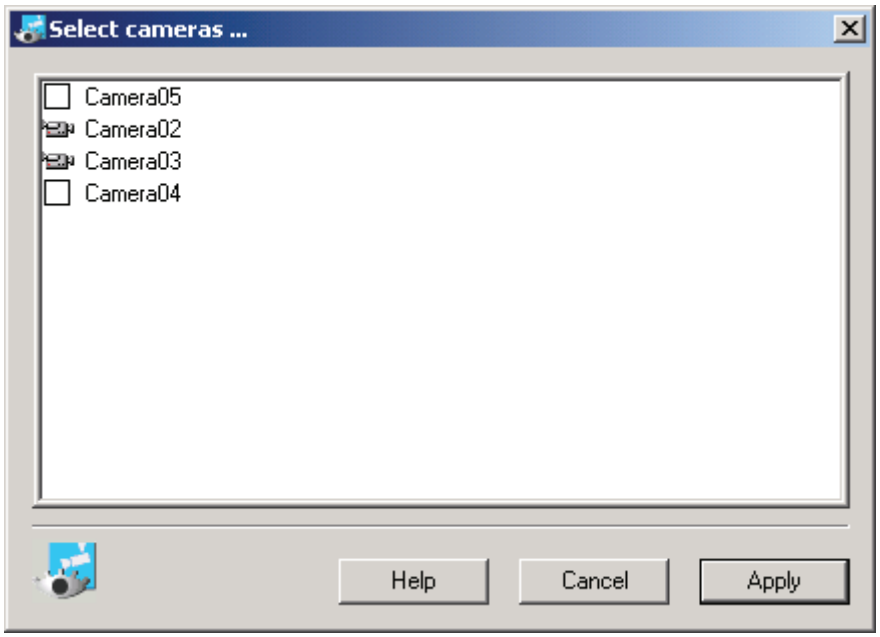



Fig. 57 Select cameras – connected to server

- 2nd possibility: Connection to the server was not possible.

  A numbered list is shown for selection of the cameras. The camera names are displayed only if there is a connection to the server.

**NOTE**

Nos. 1 to 64 of the list are reserved for analogue cameras, no. 65 and higher are for network cameras.

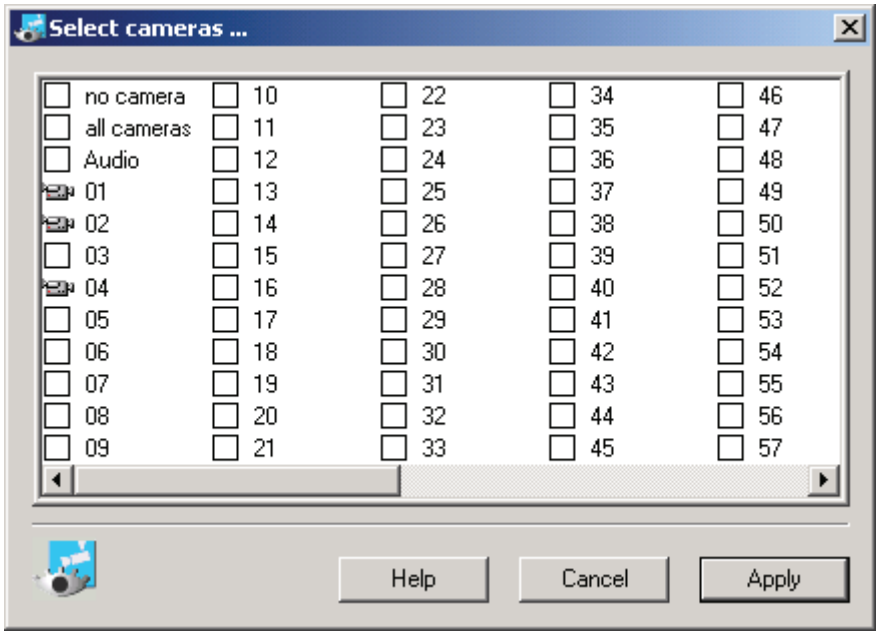



Fig. 58 Select cameras – no connection to the server

4. Tick the checkbox next to the desired camera.
5. Repeat this step until you have selected the required cameras.

**NOTE:**
The options **no camera** and **all cameras** provide an option for editing the camera list quickly.
It is not possible to select cameras if there is no connection to the server.

6. Click **Apply**.
   ➔ The settings will be saved.

### 19.5.8 Searching for a SISTORE MX server

You can search for SISTORE MX servers in the address book with the **Search** button. Using the **Scan network** button you can search for MX servers in the network.

Prerequisites:
- The SISTORE MX RemoteView application software has been started.
- The address book is opened in the SISTORE MX RemoteView application software.

  See Section 19.5.1 Open address book, *page 96*.

There are two possible ways to search for a SISTORE MX Server:

1. Click ***Search***.

   – Or –

   Enter the port in the **TCP/IP Port** text field.

   ➔ The address book will be searched for SISTORE MX Servers.
   ➔ All existing SISTORE MX Servers on the network will be displayed.

**NOTE:**
The search is carried out for only one 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).

2. Click the **Search network** button.
3. 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.

**NOTE:**
In view of the restrictions of the operating system version Windows XP ServicePack 2, the **Search network** procedure can take several minutes.

## 19.6 Display live images

To display the pictures grabbed by a camera live you must have „Display“ authorisation. By selecting a camera in the „Cameras“ field the live picture of this camera will appear in the video display area.

**NOTE:**
A maximum of 16 cameras can be displayed simultaneously with an ISDN connection. Other than this, simultaneous display of 36 cameras is possible. In the live picture, in contrast to SISTORE MX the titles “REC“, “STOP“ or “DET“ are **not** available.

By double clicking the left mouse button within the picture or by clicking the right mouse button within the picture and then selecting ***Full picture*** (context menu) the window may also be enlarged.

When SISTORE MX RemoteView is running in multi-server mode, possibly a great many cameras would be displayed. For clarity reasons the cameras whose live images are to be displayed can be selected from the list in the right section of the screen.

The list contains the names of all servers and, on a subordinate level, the camera names. The cameras can be activated and deactivated by clicking the corresponding checkboxes. The activated cameras are displayed in the timeline. The live images of max. 36 cameras can be displayed simultaneously.

## 19.7 Multi-monitor mode

In multi-monitor mode, SISTORE MX RemoteView supports max. 2 monitors. A configuration of the monitor display is currently not possible. The first monitor is used in the same manner as in single-monitor mode.

The second monitor performs the following functions:

- Display site plan in full screen format
- Display event window in full screen format
- Display live image in full screen format

**Display site plan in full screen format**

Prerequisites:

- The SISTORE MX RemoteView application software has been started.
- There is an active connection to a SISTORE MX server.
- A site plan is available on the SISTORE MX server.

**1.** Click the icon **Show map**  in the toolbar.
– OR –
Select **Map** in the **View** menu.

➔ The selected camera pictures will be displayed on the first monitor (see Fig. 59).

➔ The site plan will be displayed in full screen format on the second monitor (see Fig. 60).

**NOTE**
The map function has priority over the other functions.

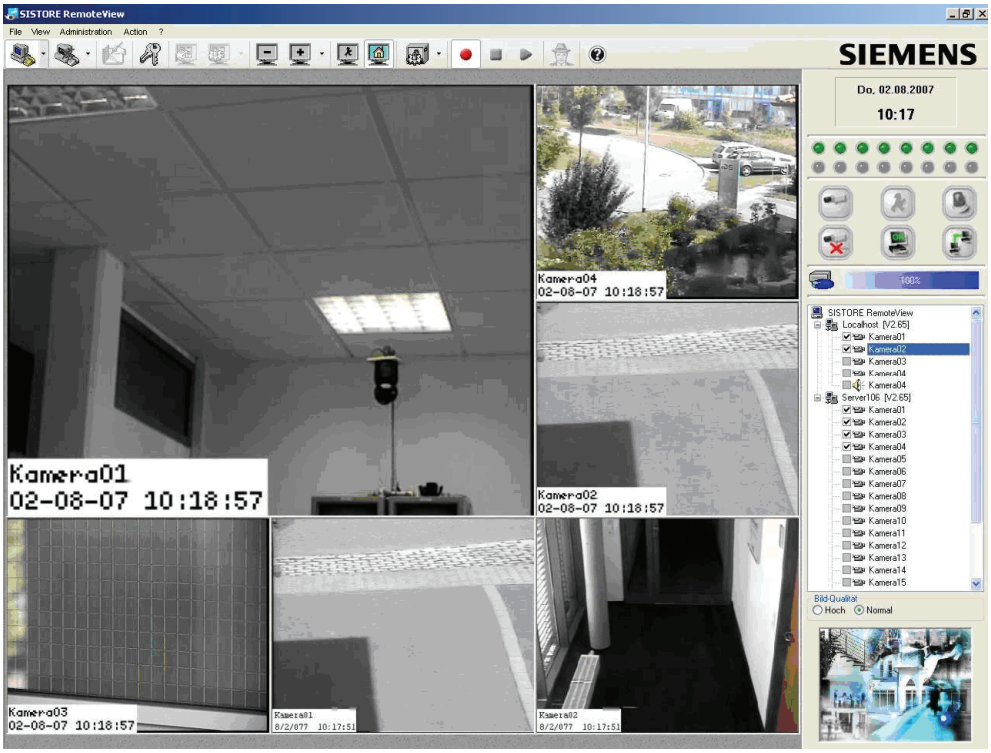



Fig. 59 SISTORE MX RemoteView - Camera pictures in multi-monitor mode

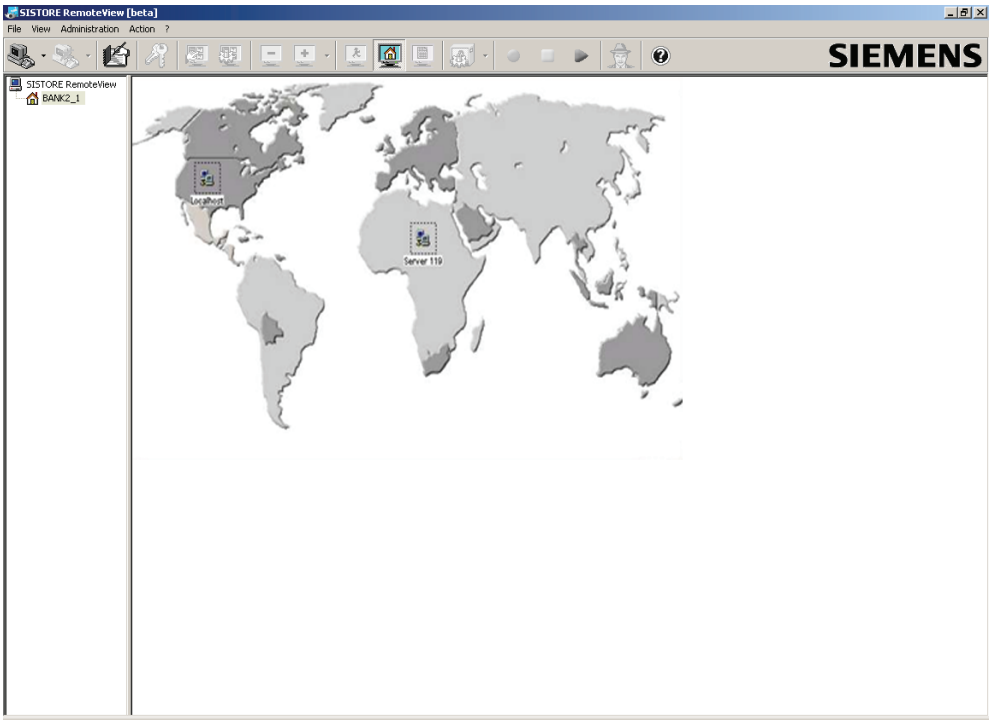



Fig. 60 SISTORE MX RemoteView - Site plan of the connected server

**Display event view window in full screen format**

Prerequisite:

- No site plan is opened.
- An event has occurred (e.g. motion detected).

➔ The camera picture of the channel on which the event occurred will be displayed automatically in full screen format on the second monitor.

**NOTE**
When the preset alarm and post-alarm time has expired the camera image will be blanked.

**Display live image in full screen format**

Prerequisite:

- No site plan is opened.
- The event window is not activated.

**1.** Double click the left mouse button on the corresponding camera window in the display area.
-OR-
Right-click on das corresponding camera window in the display area.

➔ A **context menu** will open.

**2.** Select **Full screen** in the **context menu**.

➔ The camera picture will be displayed in full screen format on the second monitor.

**NOTE**
If the second monitor is not available for whatever reason, the camera pictures will be displayed on the first monitor.

# 19.8 Virtual guard tour

## 19.8.1 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 connections after a preset time

The connection data are taken from the address book.

Prerequisites

- The SISTORE MX RemoteView application software has been started.
- Connections that have been set up are listed in the address book.

1. Select the menu sequence ***File*** -> ***Connect***.
   ➔ The ***Address book*** dialog box appears.

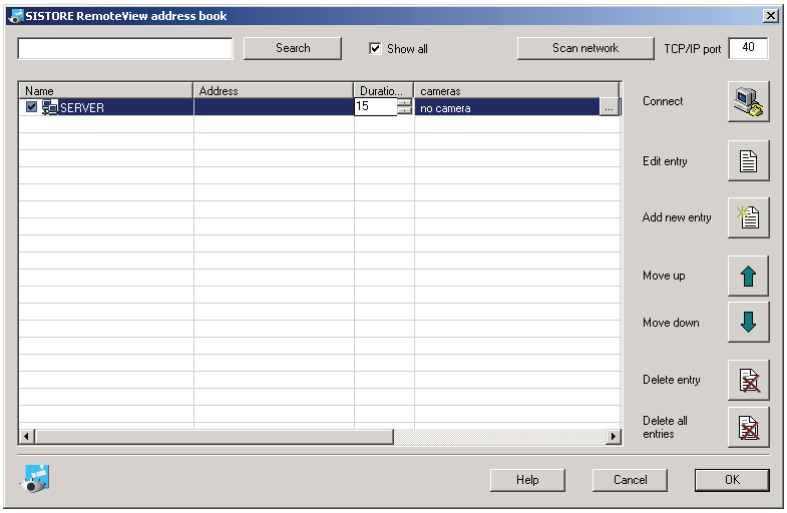



Fig. 61 SISTORE RemoteView address book

2. Activate the option ***Show all***.
   ➔ The columns ***Duration***, ***Cameras, Server name/IP address, Port, RAS*** and ***Phone number*** will be displayed.
3. Select the desired connection in the ***address book***.
4. Set a connection duration in seconds in the ***Duration*** column.
5. In the ***Cameras*** column, select the cameras whose images are to be displayed after the connection has been set up.
   See Section *"Select cameras", page 100*.
6. Change the sequence of the connections using the buttons ***Move up*** and ***Move down*** .
7. Click ***OK***.
   ➔ The address book is closed.
   ➔ The selected connections are now copied by name into the guard function.

**NOTE:**
Clicking the button **Delete all entries** deletes the entries from the address book.

## 19.8.2 Starting and terminating the virtual guard

### Starting the virtual guard

Prerequisites:

- There is at least one entry in the address book and the cameras to be displayed have been selected.

There are several possibilities to start the virtual guard:

- Click the button  in the toolbar.

– Or –

- Choose the menu option ***Admin*** -> ***Start virtual guard***.

– Or –

- Enter the following command in the command line:
  **C:\Program Files\Siemens\SISTORE MX\REMOTEVIEW\ SistoreRemoteView.exe -vguard**

**NOTE:**
While the virtual guard is running in SISTORE MX RemoteView, it is not possible to establish a connection to the RemoteView client if an alarm occurs.

### Terminating the virtual guard

There are two possible ways to terminate the virtual guard:

1. Click the button  in the toolbar.

– Or –

1. Select the **Administration** menu in the menu bar.
2. Select the menu option **End 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 the **Login**  button.
   ➔ The **SISTORE MX RemoteView Login** dialog box is opened.
2. Enter a user name in the **User name** field.
3. Enter the appropriate password in the **Password** field.

**NOTE:**
The virtual guard is interrupted, i.e. during any such action by the user there is no automatic disconnection and reconnection of the connection.
A connection duration in seconds can be set for each connection. In addition, a list of cameras can be stipulated which are to be shown live after the connection has been set up.

## 19.9 Start/stop recording

Using SISTORE MX RemoteView, it is also possible to start or stop the SISTORE MX server by remote access, on the condition that you have “Start/Stop“ authorisation as well as “Remote access“ authorisation.

Starting and stopping is carried out in the same way as in SISTORE MX, either via the menu ***Action*** -> ***Start/Stop Recording*** or by clicking the ***Rec*** or ***Stop*** buttons.

## 19.10 SISTORE MX RemoteView alarm list (optional)

In order to enable the use of the alarm lists of the connected servers in SISTORE MX RemoteView, the following settings have to be made:

- At the server end, the options **Alarm list entry** and **Alarm connection** must be activated.
  (For more information please refer to the SISTORE MX Configuration Manual, Section 20.3.1 General information about recording modes)
- In the SISTORE MX RemoteView system configuration, the option **Use alarm list** must be activated.
  (For more information please refer to the SISTORE MX Configuration Manual, Section 29.8.1 Initial display mode selection)

### 19.10.1 Show alarm details

In SISTORE MX RemoteView, you can display the following information on each alarm:

- Date and time of the alarm
- Camera which triggered the alarm
- Text of the alarm message
- Alarming server

Prerequisites:

- The alarm list is displayed.
- There is at least one entry in the alarm list.

**1.** Double click on the desired entry in the alarm list.

➔ The alarm details data will be shown.

### 19.10.2 Acknowledge alarm list entry

Prerequisite:

- The alarm details are shown (see Section "Show alarm details" above)

**1.** Enter your comment in the **User comment** text field.

**2.** Click the  button.

➔ The comment you have entered will be saved to the SISTORE MX RemoteView logbook.

➔ The comment you have entered will be saved to the logbook of the associated SISTORE MX server.

➔ The alarm will be removed from the alarm list.

### 19.10.3 Display live image of the camera which triggered the alarm

Prerequisites:

- The alarm details are shown (see Section "Show alarm details")

**1.** Click the  button.

➔ The live image of the camera which triggered the alarm will be displayed.

**NOTE**
If the camera is assigned an audio channel there will also be live sound.

## 19.11 Connection protocol

All images that the user has received during remote connection from a SISTORE MX recording system are stored with the help of this function. It is unimportant whether these images were requested using the preview or the playback function. The image size is 384 x 288 irrespective of the transmitted image size. All received images are scaled up/down to this size and stored. The quality of the stored images, naturally, cannot be better than that of the received images – the opposite, however, does apply.

The function must be enabled by the user. The directory where these AVI files are to be stored can also be specified by the user. To do this, proceed as follows:

➔ Terminate all connections.

➔ Select the menu sequence ***Administration*** -> ***Configure RemoteView***.

➔ Activate connection protocol and enter/change path.

The system generates AVI files, the names of which have the following format:

YYYY-MM-DD_hh-mm-ss_XXXXX_YYYY.AVI

**Explanation:**

| | |
|---|---|
| YYYY-MM-DD_hh-mm-ss: | Date (Year, Month, Day, Hour, Minute, Second) of connection set-up |
| XXXXX: | Name of distant station (from the address book) |
| YYYY: | Serial number |

The AVI files can be reproduced using SISTORE Player.

## 19.12 AVI remote export

**NOTE**
This function is not available in the CDM archive.

With SISTORE MX RemoteView it is possible to carry out remote AVI export. This AVI export runs in SISTORE MX RemoteView according to the same pattern as in the playback mode of SISTORE MX (see Section 17.16.1: Generating film sequences).

SISTORE MX RemoteView sends the command to the SISTORE MX server. The server generates film sequences locally in the "Upload" directory which is located in the work directory and transmits these files to SISTORE MX RemoteView via the network and/or ISDN.

Transmission of AVI files, above all via the telephone network, can take a long time (several hours) because they are usually large and cannot be compressed any more. SISTORE MX RemoteView cannot accept any other inputs from the user during transmission. A progress display notifies the user about the progress of the transmission (see Section 12.3: Please-wait dialog).

## 19.13 Backup

**NOTE**
This function is not available in the CDM archive.

Along with an AVI export, using SISTORE MX RemoteView it is now also possible for SISTORE MX to generate a copy of all video recordings including the database for a preset period and transmit that to the RemoteView system.

This consists of all video files of all cameras that have been generated during the period required by you being copied without change. An extract from the database which also corresponds with the required period is also generated.

The advantage of this process is that all known playback and search functions are available with this copy together with SISTORE MX RemoteView.

**Procedure**

During an existing connection to a SISTORE MX server, specify a range with the help of the timeline and then, using the menu ***File*** -> ***Backup…*** call up the dialog where you want to specify the directory where the data extract should be stored (see Section 17.7 Timeline display). IMPORTANT: In the case of raw data extraction – unlike recording – the database and video data files are always stored in the same and always only in one directory. The database is given the name SISTORE_Backup.vdb. There must not be any other database files with the ending .vdb in the specified directory. The directory should be empty. A network directory, however, can also be used.

SISTORE MX now generates first of all a database extract SISTORE_Backup.vdb) which contains all entries for the specified period and transfers this file to the SISTORE MX RemoteView client. The client evaluates the database file and orders gradually from the server the video files belonging to the database entries.

The video files are transferred as direct copies of the original. This is why a slightly larger period of time may be saved in the video files than was specified by the user.

The connection to the server can be disconnected once all files have been transmitted. Using SISTORE MX RemoteView it is then possible to open the database SISTORE_Backup.vdb offline. All known analysis possibilities are now available.

**NOTE:**
Following a backup and subsequent evaluation, the cameras will be counted from 65 to 96 (corresponding to 32 IP cameras).

If the connection to the server is interrupted while the video data is being copied or if copying is aborted by the user, it is possible to continue transfer of the missing video data at a later date. This is achieved by setting up a connection again to the same SISTORE MX server and switching to playback. Without having to mark any range beforehand in the timeline, data extraction can be started again immediately from the menu ***File -> Backup...***. Specify the same directory where the previously aborted data extraction is saved. SISTORE MX RemoteView now analyses the database "SISTORE_Backup.vdb" that is stored there and requests the missing files from the server.

**NOTE:**
Please note that the missing files can no longer be copied if they have been deleted in the meantime by the server. In addition, a connection with the same server system has to be set up as before.

# 19.14 Evaluation of video sequences in playback mode

Just as with SISTORE MX, it is possible within SISTORE MX RemoteView to playback and revise video sequences in the “playback mode”. To do this, you must have the “Playback“ authorisation. If this is the case, you can get to the “playback mode” of SISTORE MX RemoteView via the menu ***Administration*** -> ***Playback***, or by clicking the button displayed above in the toolbar. The dialog box which then opens corresponds almost exactly to that in Section 17: Playback. Some functions are however not available for manual reorganization of the database.

The following functions are available via the **View** menu:

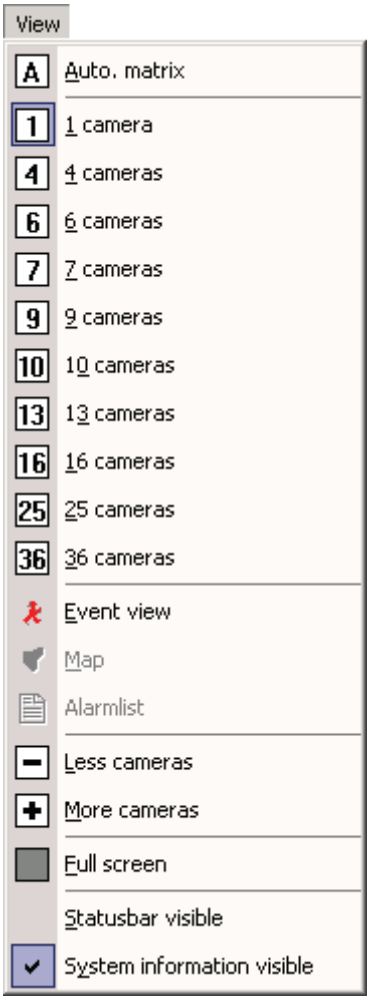



Fig. 62 Playback mode: "View" menu

By pressing the button you will leave the “playback mode”.

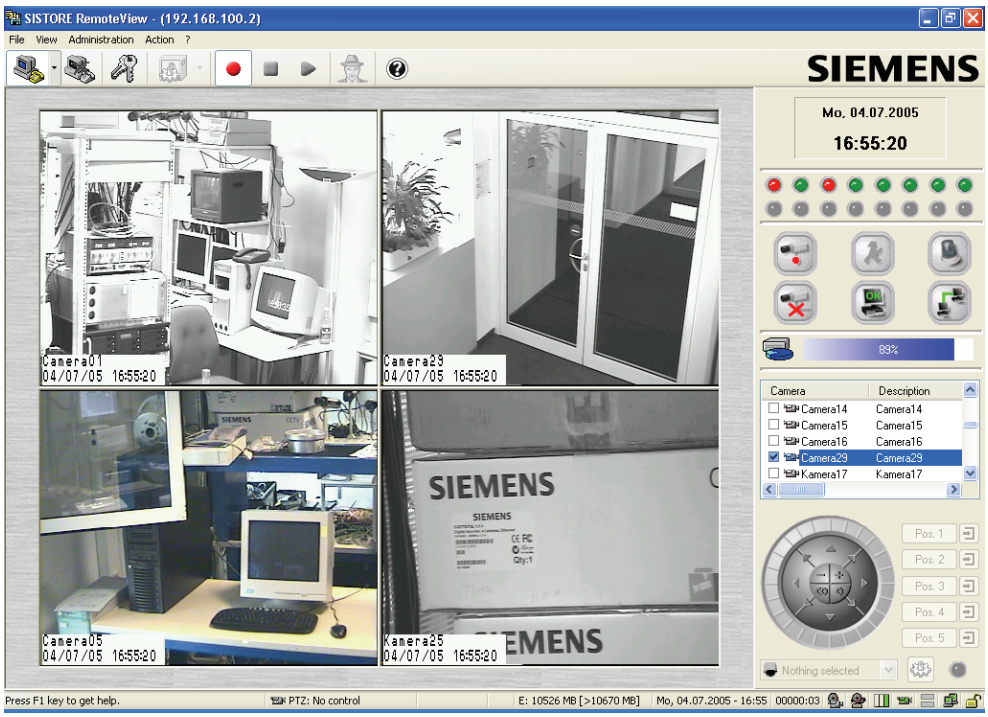



Fig. 63 Camera preview

You can display up to 4 cameras simultaneously in the preview. You select the cameras by clicking into the list with the same name.

The context menus in the live images offer additional options:

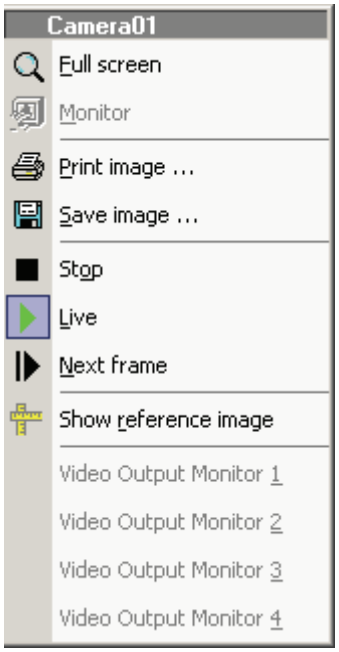



Fig. 64 Context-menu of the live image

You can start and stop the image transmission for each camera or step up as single images. So you can “freeze” a scene, print and save it.

## 19.15 Remote control of alarm outputs

You can activate the alarm outputs, which were configured for this. To do so, you must have the authorisation “remote control“.

Fig. 65 Alarm outputs

You can activate the alarm outputs by clicking onto the LED-symbol. The alarm outputs must have been defined as a special function (see Configuration Manual, Section 10).

Alarm outputs which were configured with “pulse-negative/positive” mode cannot be deactivated, because the length of the pulse was determined in the configuration and cannot be changed manually.

**NOTE**

In contrast to the SISTORE MX server / SISTORE MX NVS server, the LEDs indicating the status of the alarm outputs are in the bottom row of the display.

## 19.16 Local revision of existing databases

In SISTORE MX RemoteView databases may also be revised without a direct connection to the recording SISTORE MX system (without LAN or ISDN connections). Both Message and Record database must be available for this to take place.

You open a database via the menu ***Administration*** -> ***Playback*** or by clicking the button Play (s. header) in the toolbar. The dialog box “Select Directory“ will then appear, in which the directory containing the database should be entered and the database clicked on. After confirmation using the Select button, the database is loaded and the same dialog box as in the SISTORE MX “playback mode” will appear. The revision can be carried out in the same way as in SISTORE MX, as all functions are available.

## 19.17 Remote system reboot

With the menu sequence ***Action*** -> ***System reboot*** you can reboot SISTORE MX. To do so you need “Administrator” authorisation.

You have to acknowledge 3 safety queries, then the reboot can be executed.

That SISTORE MX after a reboot starts again automatically, the following conditions must be fulfilled:

- Automatic login to Windows
- SISTORE MX in the autostart file (the set-up enables this automatically, condition on delivery)

Only after the restart a connection to SISTORE MX can take place. The restart can take quite 1 minute or more.

**NOTE:**
If SISTORE MX is not configured to begin immediately after a restart with the recording, no recording will take place after reboot.
However, the recording can be started via remote control at any time.

## 19.17.1 Configuring the video display area

Select the desired video display mode in the ***View*** menu.

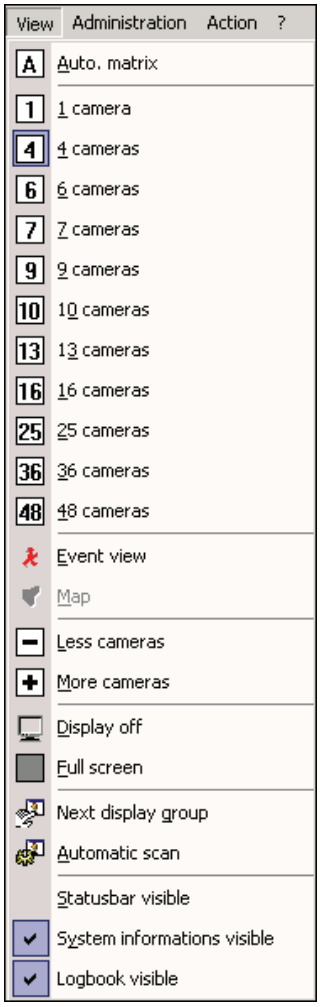



Fig. 66 SISTORE Remote View – "View" menu

| | |
|---|---|
| Auto. matrix | The display area is split automatically. |
| 1 – 64 cameras | Up to 64 cameras can be selected to be viewed simultaneously, depending on the number of cameras configured. |
| Event view | The event window is opened. |
| Map | The site plan is opened. |
| Less cameras | The number of camera pictures displayed is reduced. |
| More cameras | The number of camera pictures displayed is increased. |
| Full screen | The video display area switches to full-screen mode. |
| Statusbar visible | Displays the status bar. |
| System information visible | Displays system information. |

## 19.17.2 Open and close site plan

1. Click the button  ***Show map***

– OR –

2. Select ***Map*** in the ***View*** menu.

➔ The site plan will be opened or closed.

**NOTE**

When the mouse pointer is moved across an object on the site plan, a tooltip is displayed. This tooltips provides information on the corresponding object (object name and description, server IP address and port).

**NOTE**

The site plan can also be displayed without a connection to a server. See Section 1.

1. Left-click on the desired site plan in the tree structure.

   ➔ The site plan will be opened in the display window.

**NOTE**

When the mouse pointer is moved across an object on the site plan, a tooltip is displayed. This tooltips provides information on the corresponding object (object name and description, server IP address and port).

## 19.17.3 Different views of the site plan

**View of the site plan without connection to a server**

Prerequisite:

- There is no connection to a server.
- A site plan must have been configured at the RemoteView client PC.

Click the button  ***Show map*** in the toolbar.

➔ The site plan is displayed in the following manner:

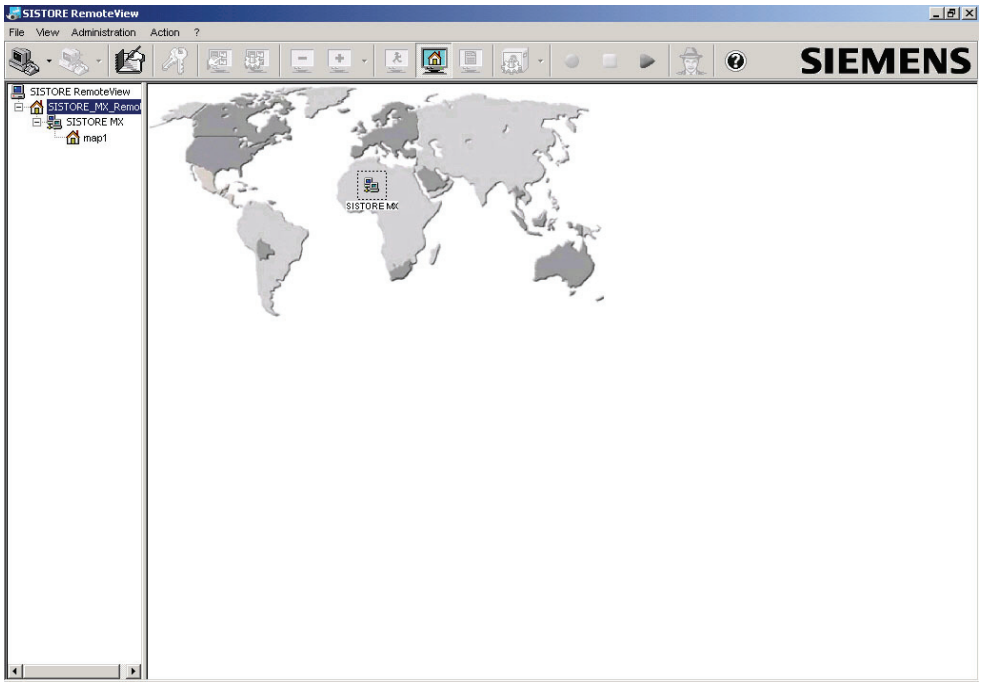



Fig. 67 SISTORE MX RemoteView - Site plan without a connection to a server

**View of the RemoteView site plan with connection to a server**

1. Select ***File*** -> ***Connect*** or click on the button  ***Connect*** in the toolbar.

➔ The address book will be opened:

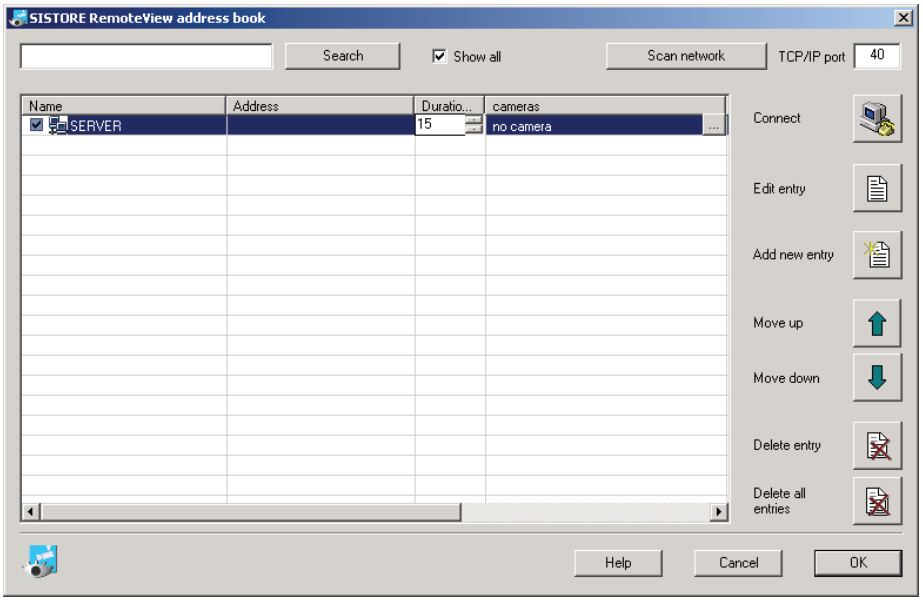



Fig. 68 SISTORE Remote View address book

2. Select a server.
3. Click the ***Connect*** button.

➔ The following dialog box will appear:

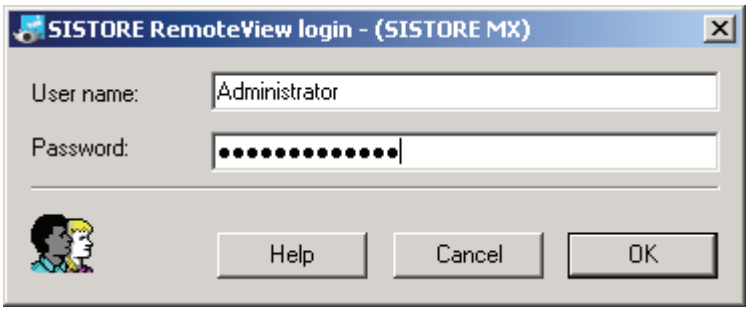



Fig. 69 SISTORE Remote View Login

4. Enter your user name and password.
5. Click OK.

➔ The connection to the server has been established.

**NOTE**
Only one connection can be established to a server at a time.

**6.** Click the button ***Show map*** in the toolbar.

➔ The Remote View site plan will be displayed in the following manner (see Section 10.12: Site plan):

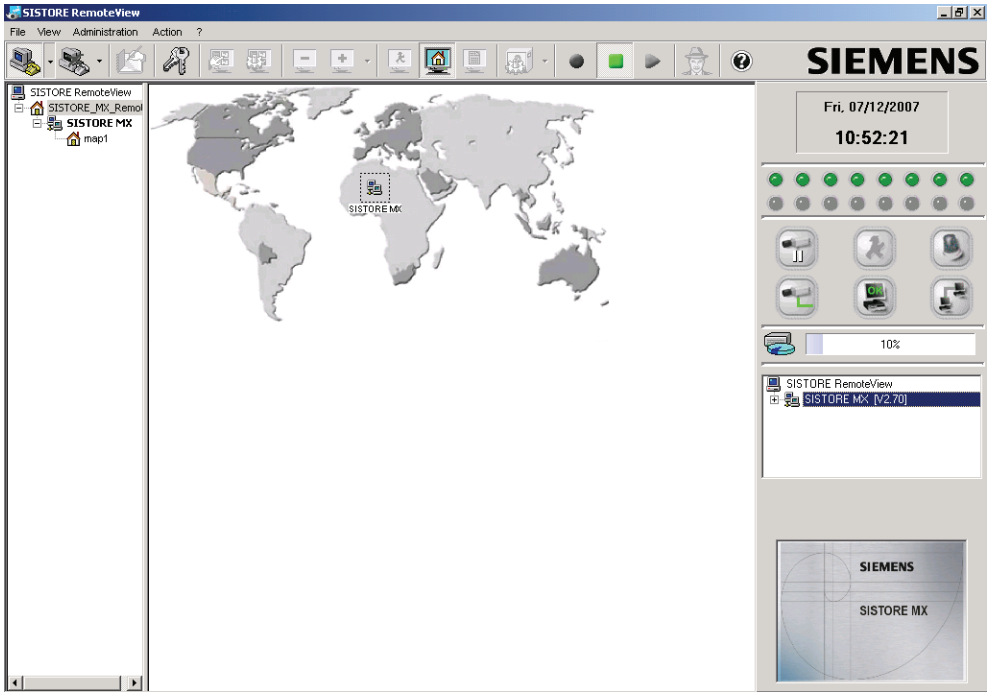



Fig. 70 SISTORE MX RemoteView - Site plan with connection to a server

A QuickInfo is displayed when the mouse pointer is moved across an object in the site plan.

The following information on the object will be displayed:

- The name and description of the object (as configured on the server)
- The IP address and port of the server

**NOTE**

If there is no connection to the server only part of the QuickInfo will be displayed.

### Display in multi-monitor mode

In multi-monitor mode, the site plan will be displayed in full screen mode on the second monitor (see Section19.7: Multi-monitor mode). The selected camera pictures will be displayed on the first monitor (see Fig. 59 and Fig. 60).

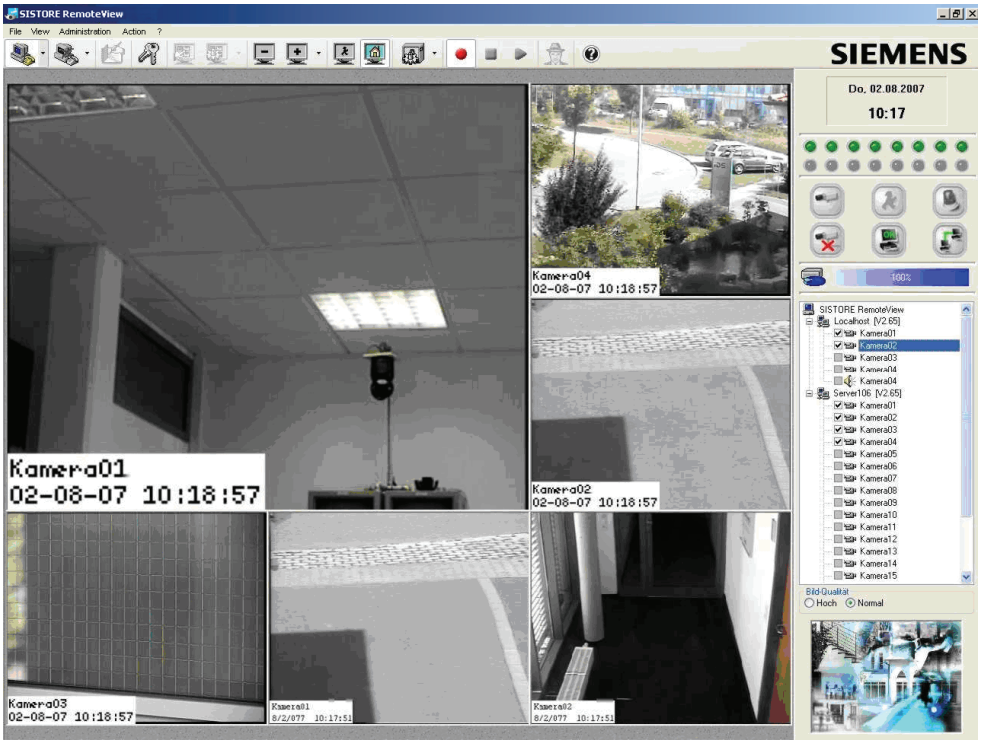



Fig. 71 SISTORE MX RemoteView - Camera pictures in multi-monitor mode

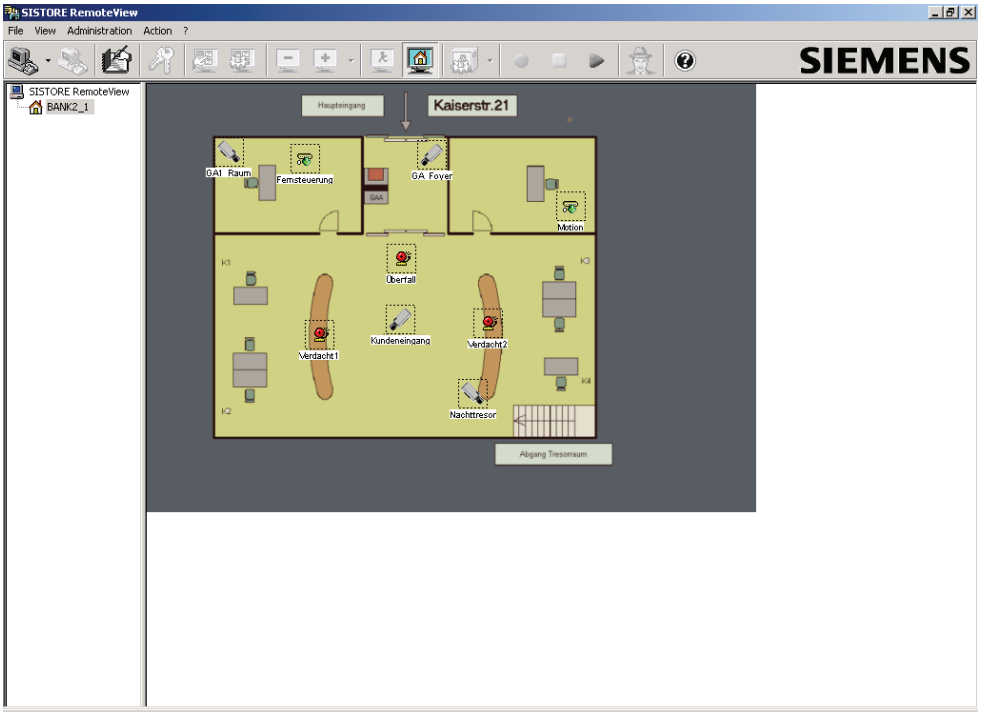



Fig. 72 SISTORE MX RemoteView - Site plan of the connected server

# 19.18 File transfer

**NOTE:**
These functions can only be performed by an administrator.

Prerequisites:

- The PC is connected to a V2.70 server.
- You have admin user rights.

### Transmitting files

1. Make sure that the file to be transmitted is not open.
2. Select the menu option ***Send file*** in the ***File*** menu.
   ➔ The following dialog box will appear:

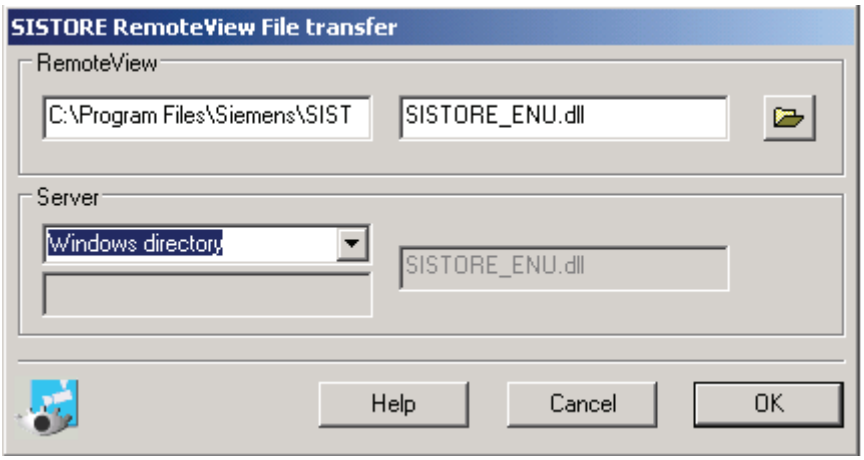



Fig. 73 File transfer

3. Select the file to be transmitted.
4. Select the target directory on the server.
   The file name of the source file is identical with that of the destination file.

### Receiving files

Data reception takes place in the same manner..

## 19.19 Software update on MX server via SISTORE MX RemoteView

**NOTE**

If you wish to update the software on the SISTORE MX Server from a SISTORE MX RemoteView client PC, please **phone** or **email** our

**Customer Support Center**:

- Phone: +49 89 9221 8000
  (Monday to Friday, 07:30 to 17:00)
- Email: fs.support.sbt@siemens.com

## 19.20 Multi-server mode

Up to 10 SISTORE MX devices can be accessed via RemoteView.

**NOTE:**
The connection of several SISTORE MX devices is only possible in a LAN network and not over ISDN.

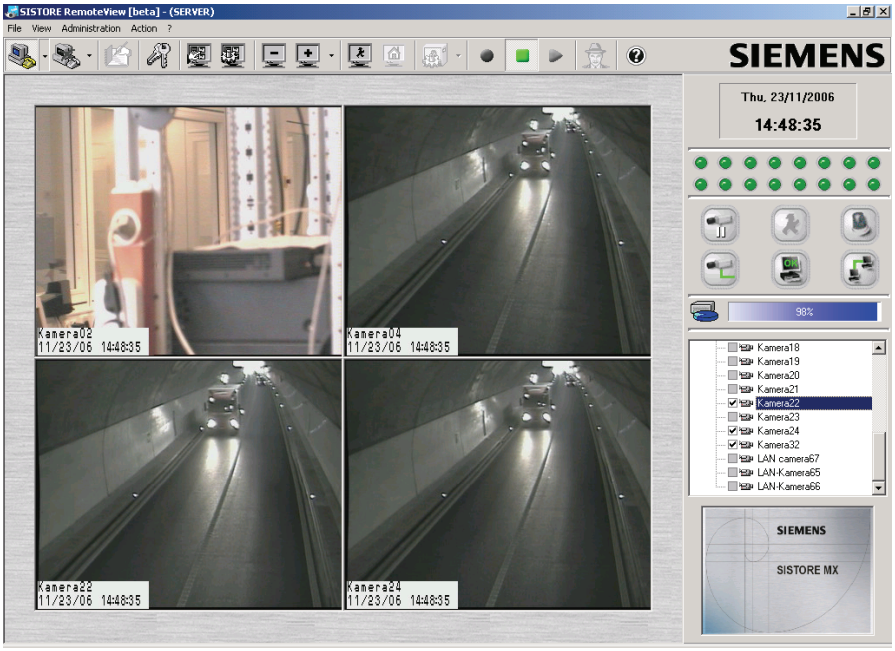



Fig. 74 RemoteView - Live image display

The cameras are displayed in a tree structure. The available cameras and audio channels of a server are shown below the entries for the connected servers.

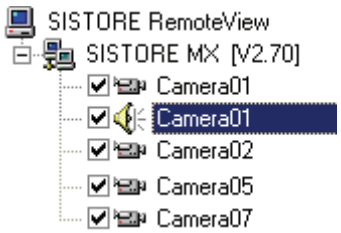



Fig. 75 RemoteView - List of cameras

To activate a camera select it in the list. Right-clicking on the camera list opens a context menu.


Fig. 76 RemoteView context menu

A maximum of 36 cameras can be displayed simultaneously.

**Status displays**

There are several server-related status displays on the RemoteView. To activate a server, select it in the camera list.

➔ All status displays and commands are then related to this particular server.

➔ The name of the active server is displayed in the SISTORE MX RemoteView title line.

The server-related status displays include:

- Time
- Alarm outputs
- HDD capacity indicator
- Recording duration
- Start/stop of recording

Global status displays are activated when any of the following events occurs on one of the connected servers:

- Motion
- Alarm
- Loss of video
- Camera tamper
- Error
- Connection

Commands (e.g. menu commands) are normally server-related:

- Test alarm
- Cameras on monitor
- Start/stop of recording
- Change user
- User comment

**NOTE:**
Remote configuration is only possible when only one server is connected to the RemoteView.

The following commands are only available in single-server operation:

- Configuration
- System restart
- Software update

The following commands are global commands:

- Acknowledge tamper alarms
- Clear errors
- Cancel alarm

Camera-related commands are sent directly to the associated server:

- Switch camera to external monitor
- PTZ control

**NOTE:**
All delete functions as well as the cash box search are disabled when more than one server is connected to the RemoteView client.

### Terminate connections

Using the button  you can terminate either individual connections or all connections at a time.

### Playback

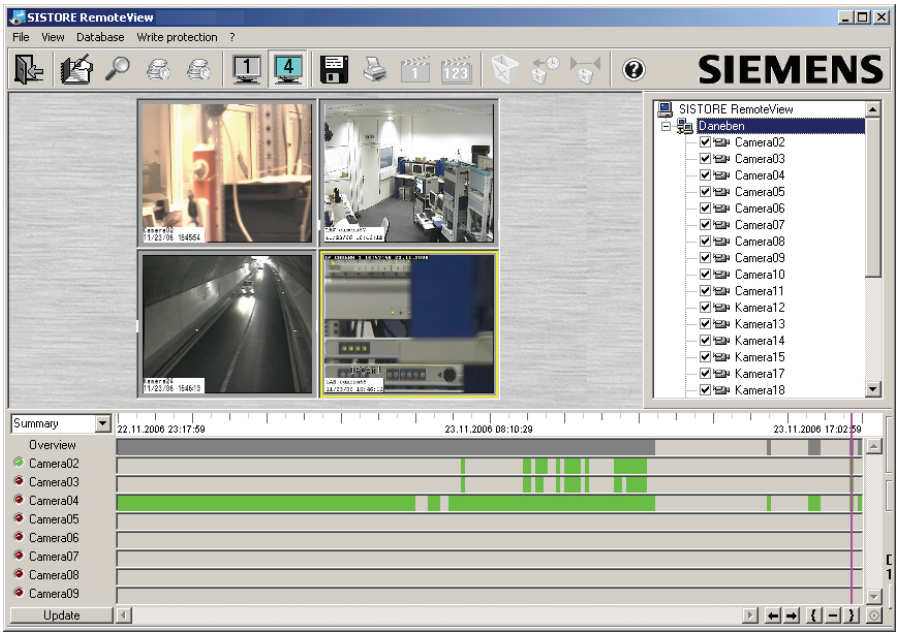



Fig. 77 RemoteView - Playback

Just like during live image display, the list of cameras is also displayed in playback mode. The cameras to be viewed are selected in the same manner as in live display mode. Only the cameras that were previously selected are displayed in the timeline, irrespective of the associated server.

### Activate audio transmission

If a camera has been assigned an audio channel, this will be indicated in SISTORE MX RemoteView by a loudspeaker symbol in the camera list next to the name of the camera. (See Fig. 75).

Prerequisites:

- The camera has been assigned an audio channel.

1. Mark the checkbox next to the loudspeaker symbol of the camera for which you want to activate sound transmission.
   ➔ Audio transmission will be activated.

**NOTE**
SISTORE MX can currently transmit only one audio channel.

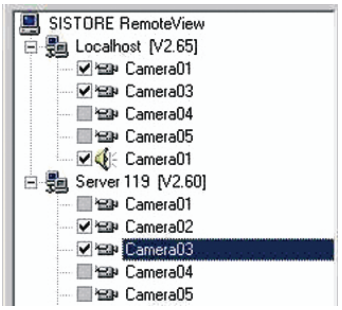



Fig. 78 SISTORE MX camera list

### Logbook

The logbook cannot be displayed when several servers are connected to the RemoteView. It is only possible to open the logbook of one server.

The server can be selected from a list which contains the names or IP addresses of all the servers that are currently connected.

**Alarm connection in multi-server mode**

In the event of an alarm, the server on which the alarm occurred will establish a connection to the RemoteView.

If one or several other servers are already connected to the RemoteView client, the user will be asked whether he wants to accept the incoming alarm connection.

- In case the user refuses to accept the alarm connection, the server will automatically establish a connection with another RemoteView client, provided that the server has been configured accordingly.
- The main disadvantage of multi-server operation is the high network load when several RemoteView clients are simultaneously connected to the same servers.
- Furthermore, there are various limitations in multi-server mode:
  - Remote configuration is only possible when the RemoteView is connected to one server only.
  - Simultaneous connection to 10 servers max.
  - The logbook cannot be opened. It is only possible to open the logbook of one server. The server can be selected from a combo box which contains the names or IP addresses of all the servers that are currently connected.
  - All delete functions are disabled
  - CDM search and cash box search are disabled

# 20 SISTORE Player

The delivery includes, free of charge, the SISTORE Player program in addition to the SISTORE MX program itself. The SISTORE Player can be used to open and play AVI files and *.k26 files that were generated in MJPEG format using SISTORE MX.

## 20.1 Starting the SISTORE Player

You have the following options to start the SISTORE Player:

- Start the SISTORE Player using the desktop icon.

– OR –

- Start the SISTORE Player from SISTORE MX.

**Starting the SISTORE Player using the desktop icon**

Prerequisite:

- The SISTORE Player is installed on the SISTORE MX device.

**1.** Double click the desktop icon **SISTORE Player**.

➔ The SISTORE Player has been started.

**Starting the SISTORE Player from SISTORE MX**

**NOTE**
This function is also available with SISTORE MX RemoteView.

Prerequisites:

- The SISTORE MX application software has been started.
- You are logged into SISTORE MX and the display mode is opened.
- The user logged in has playback authorisation.
- The SISTORE Player is installed in the SISTORE MX or in the Windows directory.

**1.** Select **Execute player program…** in the **File** menu (see Fig. 79).

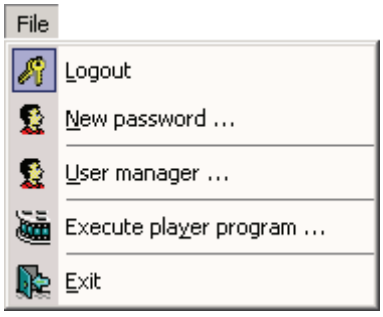



Fig. 79 SISTORE MX: Menu File

➔ The SISTORE Player has been started.

## 20.2 The SISTORE Player program window

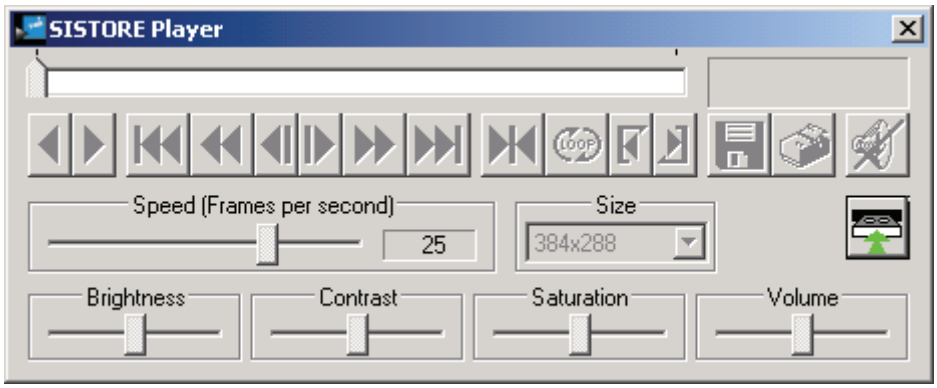



Fig. 80 SISTORE Player

The language of the player adjusts to the language of the operating system. Only one button is active when started. This allows a video file to be loaded which is explained in more detail in the following section.

## 20.3 Loading videos in the SISTORE Player

Prerequisite:
The SISTORE Player is running. See Section 20.1: Starting the SISTORE Player.

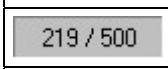
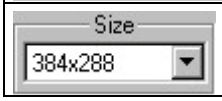
1. First, load a video file. This may be done in the following ways:
   - ➔ By drag and drop.
   - ➔ Click the  button in the program window of the SISTORE Player.
2. Select the file you want to play or view in the dialog box that appears and click the ***Open*** button.

**NOTE:**
From version 2.35 on, SISTORE MX saves all files as *.k26 files instead of *.avi files. The SISTORE player makes no difference between these two file types. The *.k26 files can however not be reproduced using other movie player models (data protection of the SISTORE MX video files).

The user should therefore always copy the file „SISTOREPlayer.exe“ from the Windows directory (e.g. \Windows) to the target data medium (disk, CD-R/CD-RW, DVD-R/DVD-RW or network drive) using the Windows explorer. This ensures that the exported files can be reproduced using the SISTORE player.

# 20.4 SISTORE Player functions

## 20.4.1 Buttons and slide controllers

| | |
|---|---|
|  | Forward replay at the configured speed |
|  | Backward replay at the configured speed |
|  | Stop; this symbol appears after pressing the playback field for stopping the video. The final video is frozen. |
|  | Fast forward |
|  | Fast backward |
|  | Go to the last image of the current file |
|  | Go to the first image of the current file |
|  | Single image back |
|  | Single image forward |
|  | Go to a selected image position |
|  | Start loop mode |
|  | Stop loop mode |
|  | Start of loop |
|  | End of loop |
|  | Save current image as BMP files or JPEG file |
|  | Print current image |
| | |
|  | Open video file |
|  | Close video file |
|  | Go to a selected image position. Direct position selection. |
|  | Display of the current image position (219 here) and total number of images (500 here) |
|  | Replay speed<br>between 0.1 and 200 images/second |
|  | The size of the display window for replayed video files depends on the monitor resolution chosen. |

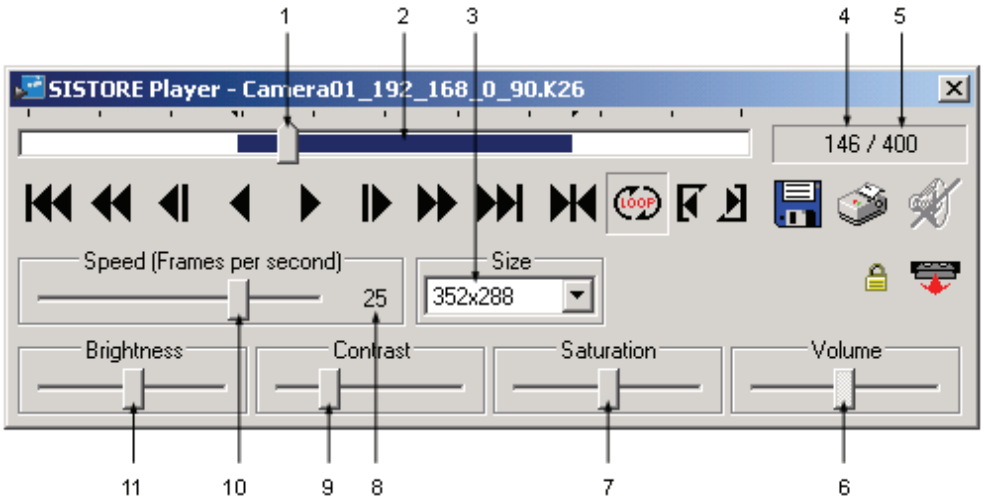



Fig. 81 SISTORE MX Player – control elements

| | |
|---|---|
| **1** | Current position in the video file |
| **2** | Marked range of defined loop |
| **3** | Size of the display window for video image in pixels |
| **4** | Current image number |
| **5** | Total number of images in the video file |
| **6** | Volume control |
| **7** | Slide control for colour saturation<br>(right-click -> reset to default value) |
| **8** | Current playback speed setting |
| **9** | Slide control for colour contrast<br>(right-click -> reset to default value) |
| **10** | Slide control for playback speed |
| **11** | Slide control for brightness<br>(right-click -> reset to default value) |

The following sizes are available for displaying the video signal window:

| | | | |
|---|---|---|---|
| 96 | x | 72 | pixels |
| 176 | x | 132 | pixels |
| 192 | x | 144 | pixels |
| 320 | x | 240 | pixels |
| 352 | x | 240 | pixels |
| 352 | x | 288 | pixels |
| 384 | x | 288 | pixels |
| 576 | x | 432 | pixels |
| 640 | x | 480 | pixels |
| 704 | x | 480 | pixels |
| 768 | x | 576 | pixels |

The full-frame mode is activated by pressing the key combination "Ctrl+F". Replay can be controlled using the keyboard in this mode. To quit this mode, press "ESC" or "Ctrl+F" again.

## 20.4.2 Key combinations

Key combinations in full-frame mode:

| | |
|---|---|
| **CTRL + F** | Toggle full screen mode |
| **ESC** | Exit full screen mode |
| **CTRL + O** | Open a file |
| **Right mouse-click** | Step forward one image |
| **Left mouse-click** | Step backward one image |
| **Space** | Replay forward |

## 20.4.3 Zoom function

You can zoom in on image sections, i.e. enlarge them.

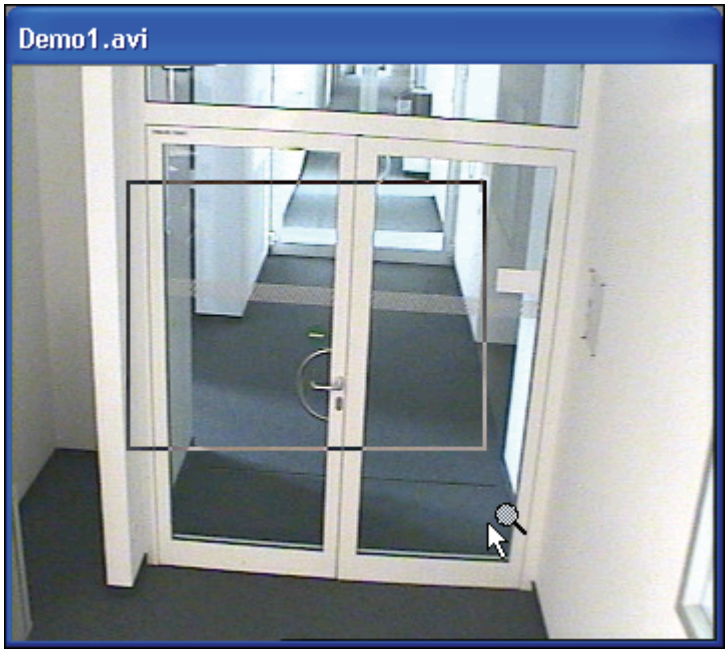



Fig. 82 Zoom function in the SISTORE Player

1. Move the cursor in the area of the video window.
2. Press the left mouse button and drag a rectangle in the video window.
3. Left-click.

➔ The portion of the image in the selected rectangle will be displayed in full screen mode. Left-click again to exit the zoom function.

## 20.4.4 Parameters for displaying video sequences

The following video sequence parameters can be set with slide controls:

- Brightness
- Contrast
- Saturation

Right-clicking will restore the default settings. The values set will be applied only to other video sequences during a session. The default settings will be restored the next time the SISTORE Player is started.

## 20.5 Playing loops

A particular segment in a video sequence can be selected and played in a loop.

**Defining the starting and end points of video segments**

Prerequisites:

- The SISTORE Player has been started.
  (See Section 20.1: Starting the SISTORE Player)
- A video file has been loaded in the SISTORE Player.
  (See Section 20.3:Loading videos in the SISTORE Player

1. Click the button **Loop**  .
2. Move the slide control to the desired starting point of the segment.
3. Click the  button.
4. Move the slide control to the desired end point of the segment.
5. Click the  button.
   ➔ The starting and end points of the video segment have been defined.

**Playing video segments in a loop**

Prerequisites:

- The starting and end points of the video segment have been defined.
- The loop mode has been activated (the button **Loop**  is visible).

1. Click the button **Play**  .
   ➔ The video segment will be played in a loop.

**Playing the whole video sequence**

1. Click the button **Loop**  .
   ➔ The loop mode is deactivated.
2. Click the button **Play**  .
   ➔ The whole video sequence will be played.

## 20.6 Archiving individual images from the SISTORE Player

When exporting individual video images (images), the current settings (zoom, brightness, contrast, colour saturation etc.) will be applied.

1. Click the  button.
2. Specify the file name and where it is to be saved.
3. Click ***Save***.

## 20.7 Printing individual images from the SISTORE Player

When printing single images, the area currently displayed will be printed with the applied settings (zoom, brightness, contrast, colour saturation etc.).

1. Click the  button.
2. Specify the print settings in the dialog box that appears.
3. Click ***OK***.

## 20.8 Signature check

During export, video files are provided with a signature.

1. Click the icon  in the SISTORE Player.
   - ➔ If the file is authentic, i.e. it has not been altered, then a small lock icon  appears.
   - ➔ If the file is not authentic, i.e. it has been altered, then a small icon of an open lock  appears.

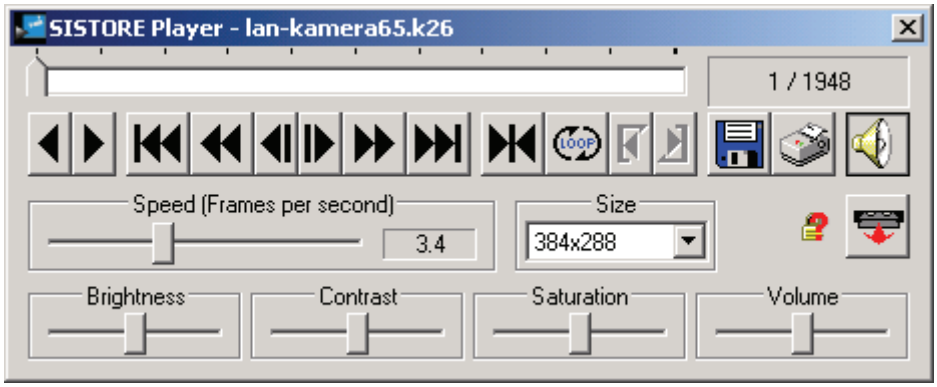



Fig. 83 Signature check

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## W



## Z

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