Software for Network-Based Video Recording System
SISTORE MX NVS

V2.90 SP2 and higher

SISTORE MX 4 NVS
SISTORE MX 9 NVS
SISTORE MX 16 NVS
SISTORE MX 32 NVS
SISTORE MX 64 NVS

- Open IP software for visualization, MJPEG recording and playback of up to 64 network cameras per server
- Direct streaming of IP cameras to the RemoteView client via MPEG4
- Compatible with Windows 7 (32-bit and 64-Bit)
- Support of Intel i5 / i7 and dual-core processors to enhance system performance
- Recording speed up to 800 images per second (and more) depending of the Server PC performnace and parameterization / settings of used IP cameras
- New functions : SNMP support and centralized User Management
- Simple intuitive installation and operation of the video monitoring system
- Playback of live and recorded video and audio streams from IP cameras
- Client/server architecture for scalable video surveillance solutions from small stand-alone systems to large distributed systems with multiple servers
- Integration of network cameras (not based on ONVIF protocol) from Siemens and many manufacturers, e.g. Axis, Sony, Panasonic or Mobotix
- Multi-monitor support for client and server (up to 4 monitors) with flexible arrangement of the monitors
- SISTORE MX 2.90 now supports larger HDDs, thus enabling capacities of up to 16 TB in conjunction with NAS systems

Answers for infrastructure.

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Features

- Software based on standard IT hardware and protocols – the performance of the system is determined by the underlying hardware
- Integration into existing IT and network infrastructure
- Direct streaming of IP camera directly to the RemoteView client for live image display via MPEG4 format
- Full support of Windows 7 (32-bit and 64-bit operating system)
- Support of network cameras as well as analogue cameras via video server (external encoder)
- Various accessories are optionally available, e.g. remote keyboard/jog shuttle for control of PTZ/dome cameras, etc.
- Support of various image resolutions from QCIF to 5 megapixel per each IP camera
- Simplified operation through hierarchical maps
- Simultaneous display, recording and playback of live images (triplex operation)
- Automatic notification in case of an alarm
- User administration with individual user rights
- Automatic archiving with signature
- Import/export of configuration settings
- Certification according to BGV (UVV – accident prevention regulations for banks)
- Simultaneous search on several servers from the RemoteView (e.g. for logistics applications)
- Zoom functionality within the live image using the mouse (particularly useful with megapixel cameras)
- Support of virtual alarm contacts for motion detection and alarm inputs directly in the camera
- Connection of cash dispensers and cash box systems
- "Smart Search" for fast retrieval of recorded video sequences
- Player software to play back exported video and audio files with signature
- Fast integration of new camera models. Please contact our Customer Support Center: sp.support.de@siemens.com.

System overview

SISTORE MX NVS is a software solution for network-based video monitoring systems. It allows the user to display record and play back live images and to access them via a network. SISTORE MX NVS is suitable for multiple applications, including office buildings, retail stores or banks, for the surveillance of rooms, buildings, production workshops, critical public areas or any outdoor areas where security is important.

- **Quick and easy installation and operation**

The system is ready for operation after installation of the software and configuration of the network cameras. Owing to its modular design it can be updated and tailored to specific requirements at any time. Most buttons are provided with easy-to-understand symbols that are placed at suitable points within the window. This allows for intuitive operation of the program. Depending on the licence, display and recording is possible with up to 64 network cameras at the same time.

- **RemoteView Client software**

The RemoteView Client software allows the operation and administration of several servers from a central workstation. The images stored on 10 servers can be displayed simultaneously. Through the integrated map function, the relevant camera pictures – live or recorded – can be displayed by simply clicking on the camera icon in the map. Furthermore, the status of the connected cameras or alarm inputs and outputs is displayed. The virtual guard function allows the time-controlled, automatic connection to various server systems in a specific order and the display of the pre-defined cameras. It is possible to configure remote devices via the network.

- **Live monitoring**

A simultaneous display of all cameras for live surveillance is possible at the same time as recording. The system is fully customizable and allows a definition of all forms of alarm scenarios according to date, time, connected periphery, ambient conditions and plausibility routines. The system supports PTZ camera control, using a connected jog shuttle, a CKA4820 control unit, or the graphic control elements on the software's user interface. The multi-user control function ensures that while a PTZ camera is being controlled by a user it will be blocked for all other users.

- **Recording and playback**

Basically the system allows two different operational recording modes which may also be combined with each other:
- Long-time recording analogous to the operation of a standard video recorder, possibly with reduced quality and frame rate in order to save hard disk space.
- Event-triggered recording, e.g. with motion detection, is the recording of alarms with their pre-history using a ring buffer.

All the recorded camera images are displayed in a timeline, which enables the desired images to be found easily and quickly. It is possible to simultaneously play back the images of several cameras which can be freely selected.

■ **Motion detection and tamper protection**

To optimize hard-disk storage, the pixel-based motion detection system allows the user to define areas of interest in a scene, and only when motion occurs within this area will the images be recorded. The motion detection can be used to trigger an alarm and increase the recording rate to ensure that all important information is stored.

SISTORE MX NVS is equipped with an integrated sabotage protection, recognising camera re-positioning, covering, spraying and de-focussing. Verification of the correct camera position is easy using the reference image.

■ **System requirements**

	NVS Server	RemoteView Client
Operating system	Windows 7 (32-bit/64-bit) Professional Windows XP SP3 (only 32-bit) Windows Vista Enterprise (only 32-bit)* Windows Server 2003 32-bit (project-specific*) Windows Server 2008 32-bit (project-specific*)	Windows 7 (32-bit/64-bit) Professional Windows XP SP3 Windows Vista
Operating system language	English/German	English/German
Display resolution	Min. 1024 x 768 pixels (depending on graphics card and monitor)	Min. 1024 x 768 pixels (depending on graphics card and monitor)
Colour depth	16-bit high colour	16-bit high colour
Graphics card	Min. 2 DVI outputs, up to 4 DVI outputs depending on the application, Min. 1024 MB graphics memory, or rather 2048 MB	Min. 2 DVI outputs, up to 4 DVI outputs depending on the application, 1024 MB graphics memory recommended
Processor	Intel multi-core i7 recommended, or higher (multi-core CPU supported but not DUAL processor CPU, AMD CPU not supported)*	Intel dual-core or quad-core (recommended i5 / i7 CPU)
Velocity	Min. 3,0 GHz	Min. 2.6 GHz
Main memory	Min. 2048 MB RAM (recommended: 4096 MB RAM or more for Windows 7 64-bit)	Min. 1024 MB RAM (recommended: 2048 MB RAM for XP, 4096 MB RAM for Windows 7)
File system	NTFS	NTFS
Network	Gigabit Ethernet	Gigabit Ethernet
Free hard drive capacity	Min. 160 GB, recommended > 1 TB	Min. 80 GB, recommended > 500 GB
System partition C	Min. 40 GB	Min. 30 GB
Archive drive	Min. 1 archive drive (D: or further drives) For banking mode with cash dispensers: min. 2 archive drives Max. archive drives: 5 TB for event recording* 16 TB at long-term*	–

■ **Technical data**

Cameras per NVS Server for recording and live image display	Max. 64 depending on the licence; the appropriate dongle must be plugged in
Video compression format	Recording: MJPEG Transmission over the network between NVS Server and RemoteView Client: MPEG4 Direct streaming from the IP camera directly to the RemoteView client: MPEG4
Max. number of servers in the system	2000
Simultaneous connections from a RemoteView Client to different servers	Max. 10 connections
Simultaneous access of several RemoteView Clients to a server	Max. 16 clients
No. of server supported within "centralized user management"	Max. 2000, one connection is opened, revised and closed after the next one

Performance of the NVS Server	Dependent on the hardware used*
Video and audio recording	Internal: on hard disk External: on NAS (Network-Attached Storage)*
Simultaneous display of live images	NVS Server: 64 RemoteView Client: 36
Simultaneous and synchronous playback of recorded sequences	Max. 4
Recording modes	Long-time recording, motion detection, alarm inputs, software trigger, cash box system
Event actions	Automatic notification (to the RemoteView Client), email, SMS, FTP transmission, alarm outputs, acoustic signalling, moving to preset positions
Search for recorded images	Timeline, date and time, logbook, multi-server search
Network connection between NVS Server and RemoteView Client	Network connections: LAN, WAN Dial-in connections: ISDN, POTS
User management	Individual user administration with global (e.g. setup) and camera-related user rights (e.g. PTZ control)
Open interface for integration into higher-order system	Support of VSS-SDK V2.5.3 and V1.4.2. The software is for instance integrated in Video Management IVM, alarm system MM8000, access control systems SiPass Entro and SiPass Integrated
Languages supported by the software	Czech, Danish, German, English, Spanish, Finnish, French, Hungarian, Italian, Dutch, Polish, Russian, Slovenian, Swedish, Turkish

* Please contact our Technical Competence Center in case of extended configurations not mentioned here (e.g. higher hard disk capacity, other type of processors. Email: sp.support.de@siemens.com. Tel.: +49 721 95 80 80 88

■ Supported IP cameras
For an overview of the supported cameras please refer to the document "SISTORE MX IP Camera list" upon the package CD or via STEP (No.: A6V10321167).

■ Scope of delivery
– USB dongle for the software licence with 4, 9, 16, 32 or 64 network cameras (the software licence can be upgraded).
– Supplement "Getting started"
– CD with SISTORE MX NVS Software, Installation Instruction, Configuration Manual and User Manual.

NOTE
– If no USB dongle is installed, the software runs in demo mode and only one network camera is supported.
– When using direct streaming, make sure that the RemoteView client is equipped at least with an Intel dual-core processor (or rather a quad-core CPU) and a high-performance graphics card (e.g. 1024 MB graphics memory, using the latest graphics drivers).
– Audio recording from the network cameras takes place over IP.
– Only one microphone each can be connected to the server or the RemoteView client via the audio port on the PC.

■ Details for ordering

Type	Order No.	Designation
SISTORE MX NVS 4	S24245-P5099-A1	Open IP software for 4 network cameras
SISTORE MX NVS 9	S24245-P5099-A2	Open IP software for 9 network cameras
SISTORE MX NVS 16	S24245-P5099-A3	Open IP software for 16 network cameras
SISTORE MX NVS 32	S24245-P5099-A4	Open IP software for 32 network cameras
SISTORE MX NVS 64	S24245-P5099-A5	Open IP software for 64 network cameras

■ Accessories
(not included in the delivery)

Type	Order No.	Designation
MX Multi-Channel Box (CDM, POS, Data)	S24245-F5092-A1	For connection of cash dispensers or cash-register systems
CKA4820 V2	S54561-C791-A1	PTZ control unit + joystick

Further products and accessories can be found in the Internet: www.siemens.com/securityproducts.

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