



SIEMENS

Building Technologies



CCTV

SISTORE CX –
highest quality MPEG4
IP video transmission
with recording & analysis



SISTORE CX – Intelligent digital video codec

SISTORE CX is an intelligent digital video CODEC capable of performing multiple tasks simultaneously over a network. Utilising MPEG4 technology, SISTORE CX offers incredible performance in both transmission speed, image quality and detailed video analysis. It provides three operating modes for real-time video: transmitter mode (encoding), receiver mode (decoding) or the combination transceiver mode, plus recording.

With its unique, user-friendly, web-based installation and configuration screen, SISTORE CX can be tailored to the application's needs with a few simple clicks on the home-page.

Highlights

- IP transmitter, receiver (encoder & decoder) and recorder
- Up to 200 ips (real-time) high quality recording
- Advanced streaming functionality
- True web-based remote control without the need for software "plug-ins"
- PTZ control for dome cameras and pan/tilt devices
- Simultaneous multi-client and multi-server access with no performance loss
- Smart search with perspective
- Reference image and Sabotage detection
- Professional outdoor video motion detection software module "SISTORE CX EDS"

Fast transmission with the highest image quality

■ IP transmitter, receiver (encoder & decoder) and recorder

All in one box IP solution for up to 8 camera inputs and 4 monitor outputs with alarm inputs.

■ Up to 200 ips (real-time) high quality recording

Each camera can be recorded in real-time at 25 ips, so for the 8 camera model, that's an incredible 200 ips!

■ Advanced streaming functionality

Extension of the video coax is possible using "video tunnelling" where the camera signal goes into the network at one location and out again in a different location.

Virtual matrix functionality – replacing an analogue matrix switcher, enabling video switching over the network, simply by selecting a camera and dropping it to a monitor.

■ True web-based remote control without the need for software "plug-ins"

SISTORE CX control via a web browser is possible without having to install "Active X"™ which could cause security risks on networks that do not allow "plug-ins" to be installed.

■ PTZ control for dome cameras and pan/tilt devices

Full pan-tilt zoom of devices, such as speed domes via simple to operate mouse control, including the setting and programming of presets.

■ Simultaneous multi-client and multi-server access with no performance loss

Connect up to 5 clients for simultaneous access to up to 100 SISTORE CX units.

■ Smart search with perspective

When searching for an object within the view of the camera, it is important to compensate for the viewing perspective of the camera. Not only can a box be drawn around the area to be searched, but if a particular object is missing (such as a palette of goods), then the perspective of this object can also be compensated.

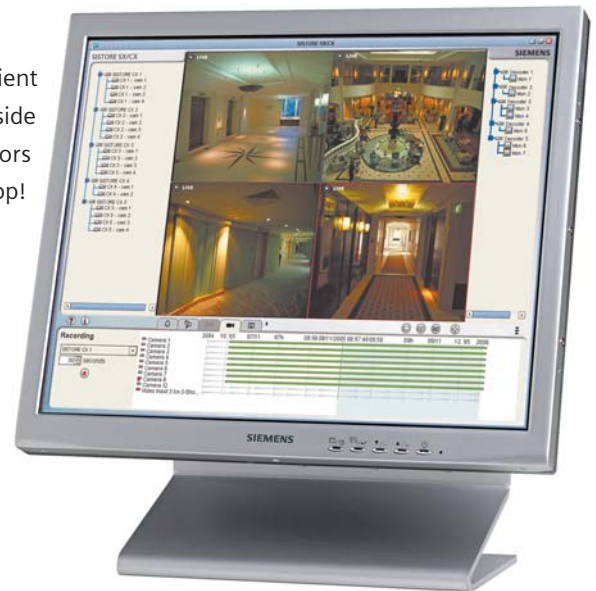
■ Reference image and Sabotage detection

Once a camera is set, a "reference image" can be saved. Working in conjunction with the additional function of "sabotage detection" – if the camera is moved, covered, de-focussed or sprayed, then a sabotage alarm is triggered. The reference image can be viewed to reset the camera to its original position.

■ Professional outdoor video motion detection software module "SISTORE CX EDS"

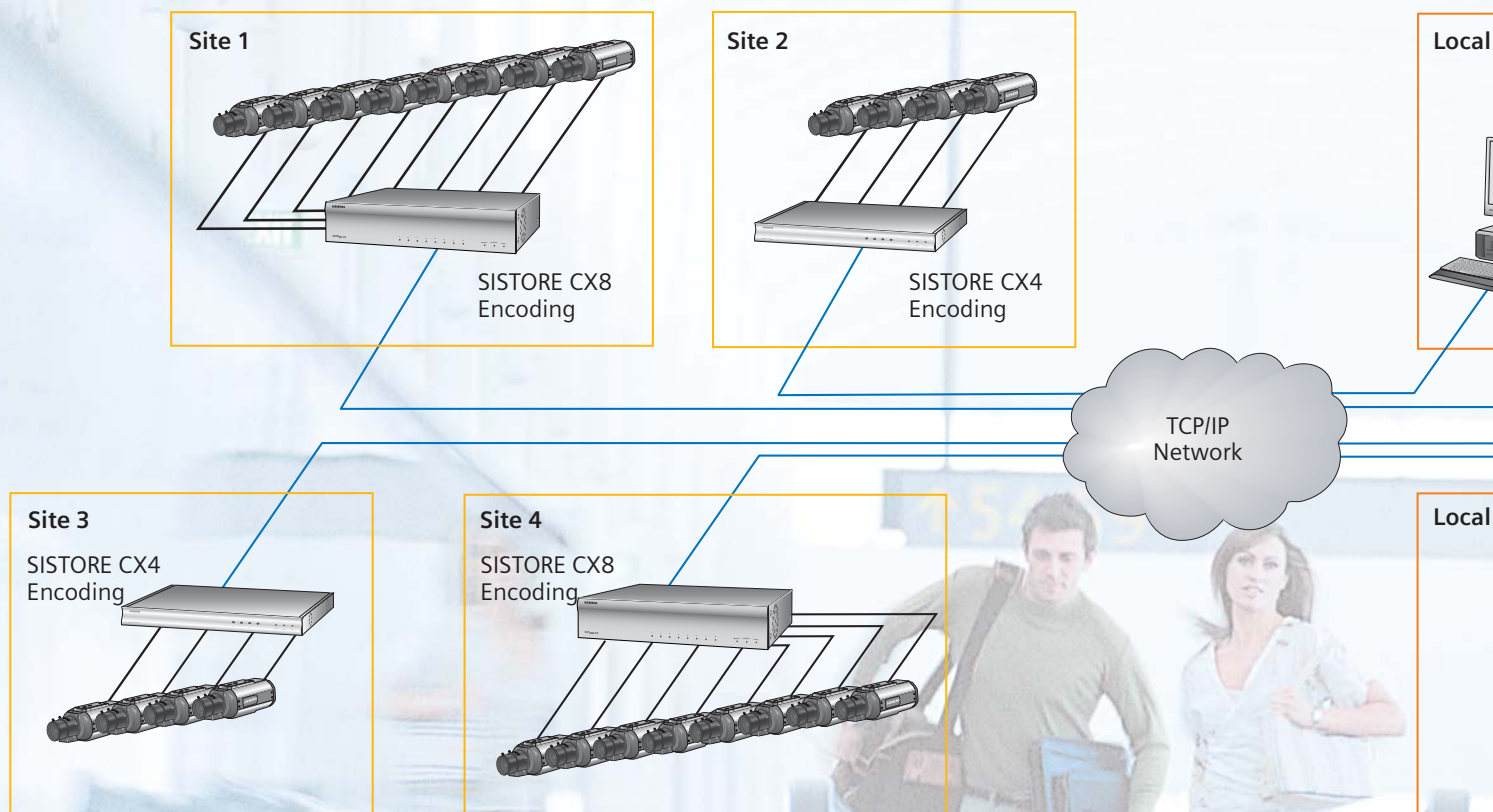
An additional software licence module "SISTORE CX EDS" can be installed to run on the SISTORE CX platform. The EDS software enhances the functions of the standard SISTORE CX to include a sophisticated outdoor video motion detection and object tracking system for use in applications such as prisons, airports, perimeter surveillance etc.

SISTORE CX Client
with cameras presented on the left side
of the screen and analogue monitors
on the right side – just drag and drop!



SISTORE CX8

Typical network configuration



MPEG4 compression

Designed to be used in network-based applications, SISTORE CX utilises the best in compression technology: MPEG4. This international standard offers both the best image quality and best compression quality, designed to both optimise hard disk space for longer storage and not requiring huge bandwidth for network transmission, saving in cabling costs.

Virtual matrix switching

Traditionally control rooms would switch analogue cameras connected by coaxial cable to analogue monitors – the main restriction being cable lengths and the size of the matrix switcher in use. SISTORE CX makes the traditional analogue matrix switcher obsolete – it offers virtual matrix switching from cameras placed anywhere connected to the network to traditional analogue monitors.

The user interface presents cameras located on the network on one side of the screen and monitors on the other – it is simply a case of dragging a camera on top of a monitor and the video “tunnels” through the network in milliseconds to present the streaming video on the monitor.

Innovative PTZ control for dome cameras

Easy to control pan-tilt zoom devices, such as speed domes via mouse control, simply clicking in the middle of the picture and the faster it is dragged in a direction, changes both the direction and speed of the dome. Programming and calling of presets is also possible – these are easy to find at the bottom of the screen with preset names.

S.M.A.R.T. (Self Monitoring, Analysis and Reporting Technology)

On the web page of the SISTORE CX unit, there is a complete overview of the most important readings to ensure the device continues to function properly. Readings include temperature – incase the hard disk will become damaged due to a temperature increase, perhaps caused by the surrounding environment, the operator will be informed of this increase to avoid hard disk failure.

Quick and easy searching

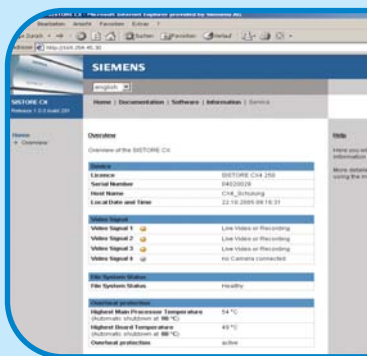
To ensure the fastest method of finding images, a mask can be defined in the area of interest, filtering the playback to only that area and ensuring no time is wasted watching hours of useless video. To compensate for the angle of view of the camera, this mask can also be drawn to the perspective of the camera view. Flags are then presented along the timeline when movement occurs in this area – simply jump the video from flag to flag to check activity.

Activity detection

To optimise hard disk storage, the sophisticated activity detection system allows the user to define areas of interest in a scene and only when motion occurs inside this area, will the images be recorded.



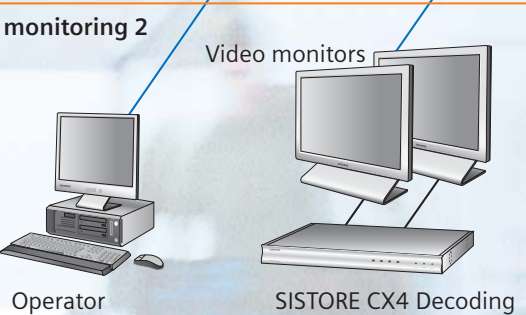
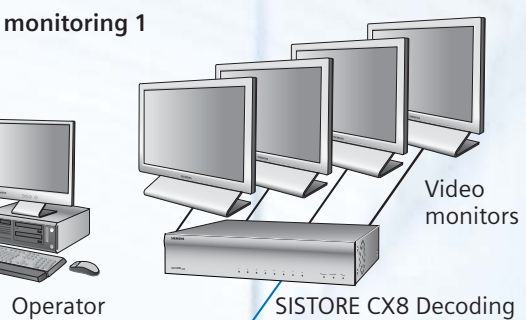
PTZ control via mouse with preset names



Web browser interface showing the unit status



Perspective search, showing flags along the bottom of the screen



Reliable outdoor video motion detection system module

Image viewing via web browsers

Simple viewing of images is possible via the use of web browsers, simply typing the IP address into the URL, the images are then presented for viewing.

Sabotage detection

Once set, should the camera be covered, defocused, repositioned, or the lens sprayed, then a sabotage alarm with trigger.

Limitlessly extend the video cable !

If a camera is located in a building where it is difficult or too far to run video cable, then simply connect the camera to a SISTORE CX (encoding), then to the network. At the place where the video is to be viewed, another SISTORE CX (decoding) will then produce analogue video which can then be connected either to a monitor, or digital recorder etc. The SISTORE CX units in this operation seamlessly replace lengths of video cable, utilising the network.

Special operation in minimised mode

To save space on the desk top of the Client PC, it is possible with one click to reduce the information displayed to just the cameras being viewed. Should an alarm then occur, the alarm icons flash and the operator can increase the window to full screen.

Internal RAID 1 (Redundant array of independent disks)

Both SISTORE CX4 and CX8 offer the highest reliability of video storage via internal RAID 1 – the video is stored on both internal hard disks (mirroring the data), so should one hard disk fail, there is always a secure backup on the other.

External storage expansion possibilities (e.g. RAID 1 and RAID 5)

Should large video storage be required for longer recordings, SISTORE CX8 has a SCSI output that can be used to extend the hard disk storage of the system to an external RAID system.

Professional outdoor video motion detection and tracking software – SISTORE CX EDS

The high performance hardware platform and superior technology that SISTORE CX has been developed with, allows further functionalities to be added via software modules – ensuring a secure investment in SISTORE CX. The first of these modules is SISTORE CX EDS (Enhanced Detection Solution). This software is a retro-fit upgrade via software licence to enable a standard SISTORE CX to have the additional functionality of a reliable outdoor motion detection and object tracking system, suitable for external installations such as prisons, perimeter protection and object tracking.

Rather than using the traditional methods of motion detection systems on the market today, that simply compare one image with the next image and checking for changes between the two, SISTORE CX EDS uses a statistical method analysis that actually looks in the past, continuously analysing the video stream throughout its history. Track length and direction of the object can also be set to ensure the highest detection rate, with very few false alarms and a continuing reliable system.

Simple setup via the intuitive interface, also ensures external environmental factors such as wind, rain, snow etc., do not cause false alarms – becoming an outdoor motion detection system “suitable for all seasons”.



Web browser live viewing



Special minimised operation mode





SISTORE CX EDS with tracking



EDS perspective compensation

Technical overview

	CX4 000/100	CX4 250/100 CX4 500/100	CX8 000/100	CX8 500/200 CX8 1000/200
				
Display				
Video inputs	4 (BNC with loop through)		8 (BNC with loop through)	
Monitor outputs	2		4	
Video inputs/outputs	4 inputs / 0 output 2 inputs / 0 output 2 inputs / 1 output 1 input / 1 output 0 input / 2 outputs		8 inputs / 0 output 4 inputs / 0 output 4 inputs / 2 output 2 input / 2 output 0 input / 4 outputs	
Streaming	100 ips encoding (CIF, 2CIF) 50 ips encoding (4CIF) 50 ips encoding & 25 ips decoding (2CIF) 25 ips encoding & 25 ips decoding (4CIF) 50 ips decoding (2CIF, 4CIF)		200 ips encoding (CIF, 2CIF) 100 ips encoding (4CIF) 100 ips encoding & 50 ips decoding (2CIF) 50 ips encoding & 50 ips decoding (4CIF) 100 ips decoding (2CIF, 4CIF)	
Display resolution (H x V)	4CIF (704 x 576) = ~DVD quality 2CIF (704 x 288) = ~SVHS quality CIF (352 x 288) = ~VHS quality			
Client live display formats	1 (full screen), 2 x 2 (quad), 4 x 4, Special overlay mode			
Recording				
Hard disk size		250 GB 500 GB		500 GB 1000 GB
Internal RAID 1		500 GB model only		■
Alarms				
Digital inputs	4		8	
Digital outputs	4		8	
Video loss detection	■	■	■	■
Activity detection	100,000 zones			
Alarm log	■	■	■	■
Sabotage detection	■	■	■	■
EDS (Video Motion Detection Software)	via licence	via licence	via licence (firmware upgradeable)	
Controls				
Easy-search via perspective mask	■	■	■	■
PTZ / dome control	■	■	■	■
Fast forward / rewind controls	■	■	■	■
Password protection	via user profile (all user rights can be individually set per user)			
Connectivity				
Ethernet connector	■	■	■	■
Client software	■	■	■	■
IVM video software interface	■	■	■	■
Video software development kit (VSS-SDK)	standard interface for integration with third party management systems			
Export / Backup				
Image export	MPEG4 (including digital secure signature) over network			
Image backup / archive	via Client PC – USB to CD/DVD burner			
Storage expansion possibility			via SCSI (firmware upgradeable)	

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The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.