



Creating Security Solutions. With Care.

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Integrated Video Solutions

RISCO Group's Integrated Video Solutions ensure complete project flexibility, with the SynopSYS Security & Building Management Software platform integrated with a line of reliable Net DVRs. The solution provides security directors and guards with an intuitive layout of all cameras on site maps.

With SynopSYS, video windows can be configured to automatically pop-up upon predefined events such as unauthorized entry. Security breaches are thus identified, verified and resolved in a quick and simple manner.

The Net DVRs together with SynopSYS capture critical video in response to alarms, alerting security directors and allowing authorized personnel to view recorded video or live situations remotely.

Featuring industry leading robust video quality with H.264 compression, highly efficient streaming and storage, and seamless remote access - RISCO Group provides one of the best suites of video solutions on the market.

Designed for easy installation, easy operation and 100% reliability, RISCO Group's Integrated Video Solutions are ideal for deployment in banks, universities, and institutional, industrial and commercial establishments.



Solution Highlights

- Event driven display of video in a single SynopSYS window - with fully selectable display layout and camera position per event (1, 4, 8, 9, 16 cameras)
- High quality video up to 4CIF real-time live and playback on SynopSYS window
- Any event or logical combination of events or preconditions in SynopSYS can automatically initiate:
 video streaming to SynopSYS
 - Video recording in the DVR or in SynopSYS
 Camera pop-up for live viewing in SynopSYS
 PTZ cameras pointed at preset position
- Video is linked to events in SynopSYS, allowing easy query and analysis of events from the SynopSYS Report Generator by clicking on the event video link
- Camera allocation on SynopSYS maps
- Export of video or snapshots to external media with watermark
- Operator may initiate video recording or save snapshot from SynopSYS
- Full setup via DVR Remote Client or Web Client of:
 Video streaming resolutions, frame rate and bit-rate for main-stream and sub-stream
 - Pre & post alarm recording time
 - Recording modes: continuous, Scheduling, upon event and manually
 - Adjustable Frame Rate and bit-rate per camera
 - \circ Multiple Video Motion Detection (VMD) zones
 - Masking zones for privacy
 - Preset position for PTZ cameras
 - All other relevant parameters

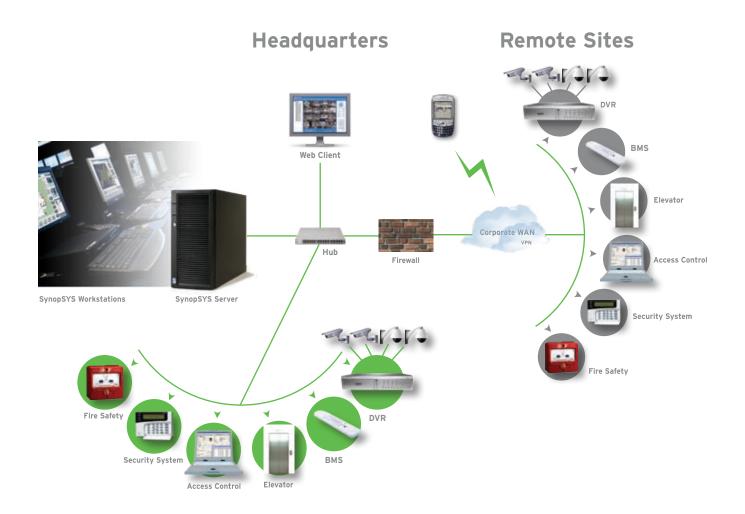






Solution Architecture

RISCO Group's SynopSYS is a landmark development in integrated security and building management, providing simplified and completely integrated site management and control from ONE interface, using intuitive synoptic maps. Employing state-of-the-art technology, SynopSYS converges security, video monitoring, fire detection, access control, HVAC and other building automation systems into a single management platform.



Creating Security Solutions.

Net DVR Highlights

RISCO Group's Net DVRs put you in charge, protect your business investment and enhance your employees' security.

RISCO Group's Net DVR solutions employ a real-time operating system and embedded technology, that can operate stand-alone supporting up to 16 cameras per DVR or used to build a powerful surveillance network.

The Net DVRs have their own embedded software management system, which includes advanced features such as video motion detection (VMD), multiple preview modes, sensitive area mask and additional features for advanced management, retrieval and playback.

Excellent video quality with network and storage efficiency

The Net DVRs employ H.264 compression technology providing the following benefits:

- H.264, also known as MPEG-4 Part 10, improves the video compression efficiency, achieving 30% reduction in file size compared to MPEG-4 Part 2 for the same video quality.
- H.264 bit stream structure has excellent network adaptability and includes error recovery, allowing excellent video transmission over multiple and diverse IP and wireless networks.
- Remote preview and playback of video via the network are clear and lifelike.

In addition, dynamic adjustment of stream resolution, bit rate, frame rate, picture quality and other video parameters is performed according to application requirements. The systems support multiple resolutions, simultaneous dual-streaming, adjustable bitrate and multiple image quality levels.

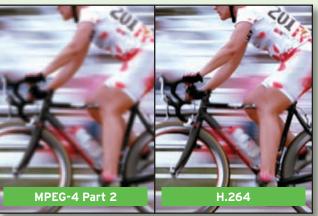
Security and Reliability

Digital watermark technology prevents video information from being tampered with and improves its credibility.

Unique HDD file system management technology

- Disk pre-allocation and multi-division technology prevents disk fragmentation and prolongs the hard disk's life-span.
- The freeze protection technology enhances the security of file system.
- Hard disk dormancy and low-seeking technology enhance the reliability and work efficiency of the hard disk (only one HDD is active at all times).

The Safe handling mechanism stores data during a power outage and automatically starts up when power supply returns to normal.



4CIF resolution at a bit rate of 1.2Mbps 4CIF resolution at a bit rate of 1.2Mbps

Extensive functionality for any application

Excellent network functionality with support for all mainstream network protocols (ARP, RARP, IP, TCP, UDP, RTP, IGMP, PPP, PPPOE, DHCP, SNMP, HTTP, FTP, etc.), broadband dial-up access (PPPoE protocol) and narrowband transmission (PPP protocol).

Multi-technology support of simultaneous recording, playback, network-transmission, and operation of menu functions, alarm and audio data.

Switch and control support such as convenient PTZ control, preferences, cruise and sequence.

Multiple interface functions including Audio/video input/ output, alarm input/output, RS232, RS485, VGA, USB, eSATA and Keyboard.

Net DVR 7000 & 6000 Series

High video quality H.264 Network DVR

RISCO Group's Net DVR Plus 7000 series and Net DVR 6000 series are high-performance network digital video recorders. Easy to install and simple to use, the Net DVR operates as a standalone system or scalable up to build a powerful surveillance network.

RISCO Group's Net DVR solutions employ a real-time operating system and embedded technology, designed for robust and cost effective image viewing and recording at up to 30 (NTSC) or 25 (PAL) frames per second per camera in high resolution.



Net DVR Plus 7000 series: all channels can be recorded in **4CIF resolution** (DVD quality) **in real time** (25/30 fps for all channels simultaneously).

Net DVR 6000 series: all channels can be recorded in **4CIF resolution at 6/7 fps (PAL/NTSC)** or CIF in real time (comparable to VCD or VHS quality).

Main features

- H.264 with advanced Variable or Constant Bit Rate compression
- High resolution, 4CIF with real time frame rate (25 PAL, 30 NTSC) in all channels
- Support up to 8TB internal storage, with additional capability of external storage
- Support many PTZ dome manufactures
- Dual video stream per channel main stream can be recorded locally in high resolution, while sub-stream is simultaneously viewed remotely over the network in lower bit rate
- Easily scalable to support unlimited input channels
- Simultaneous recording, play-back, network-transmission, and operation of menu functions, alarm and other functions of video and audio data

Video functions

- Multi-zone video motion detection for each camera
- Privacy mask function to mask sensitive areas
- Tampering alarm function for alerting on intentional camera blocking
- Video signal loss alarm function
- Digital watermark technology prevents video information from being tampered with and improves its credibility

Unique Storage functions

- Pre-hard disk failure warning technology ensures reliable and robust operation of the hard disk
- 8 SATA HDD interfaces, each HDD up to 2000GB
- HDD sleep mode
- HDD S.M.A.R.T function
- Numerous recording modes: continuous recording, VMD recording, external alarm recording, and manual recording
- Supports USB flash-disk, USB hard-disk and USB CD-R/W for backup

Preview & Playback functions

- Supports a main monitor and VGA
- Supports one spot monitor for preview and playback.
- Fast playback, slow, pause, forward, backward, frame by frame, etc
- User defined preview layouts
- Remote playback, with local video files storage
- Remote PTZ control
- Local and remote event monitoring
- Web Browser with Video Web Client

Other

- Embedded real-time operating system
 - Multi-lever user management
 - Local and remote search log function



Technical specifications

4 Channel Nodel Name 4 Channel Net DVR Plus Net DVR Net Plus Net DVR Plus Net DVR Net Plus Net DVR Plus Net DVR Plus Net DVR Plus Net DVR Plus Net DVR Plus Net DVR Net Plus Net DVR Plus									
Video compression H.264 Recording & playback resolution 4CIF/DCIF/2CIF/CIF/OCIF real-time for each channel dCIF/DCIF/2CIF not real time Preview resolution 4CIF/real time (PAL: 7C4*576, NTSC: 7C4*480) Frame rate Maximum 25fps/30fps (PAL/NTSC) per channel DCIF 89/15ps per channel 2CIF 12/13 fps per channel DCIF 89/15ps per channel Bit rate Adjustable Bit rate from 32Kbps up to 2Mbps Maximum Dual Stream Yes, video resolution and maximum bit rate are adjustable per stream and per channel DCIF 89/15ps per channel System Setup, Viewing & Control Options Locally on DVR via Front Buttons & Mouse or Handheld Remote Control Web Browser with Remote Web Cilent Video input 4 8 16 4 8 16 Audio input 4 8 16 4 8 16 Audio input 1 1 1 BNC (LOVp-p, 750) 1 1 1 Audio output 1 <									
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RS-232 interface1 RJ45 RS232 PortRS-485 PTZ interfacePelco-P,D and many other manufacture protocolsSATA interface4 SATA HDDs with CD/DVD-R/W: 8 SATA interfaces - optional4 SATA HDDs 8 SATA interfaces - optionalSupplied SATA HDD320 GB320 GB500 GB320 GB320 GBUSB interface1 USB 1.1 supports USB flash memory, USB HDD, USB CD/DVD-R/W, USB mouseVGA output1 VGA interface, support resolutions of: 800X600/60Hz, 800X600/75Hz, 1024X768/60HzExternal alarm inputs41616Relay outputs2442Power supply100-240VAC, 6.3A, 50~60HzPower consumption20-52W (without HDD and CD-R/W)Operating temperature-10°C to +55°C	Voice talk		1 ch	annel, BNC (Linea	r Electrical Level, 1	κΩ)			
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SATA interface4 SATA HDDs with CD/DVD-R/W: 8 SATA interfaces - optional4 SATA HDDsSATA HDDs with CD/DVD-R/W: 8 SATA interfaces - optionalSupplied SATA HDD320 GB320 GB320 GB320 GB320 GBUSB interface1 USB 1.1 supports USB flash memory, USB HDD, USB CD/DVD-R/W, USB mouseVGA output1 VGA interface, support resolutions of: 800X600/60Hz, 800X600/75Hz, 1024X768/60HzExternal alarm inputs41616Relay outputs2442Power supply100-240VAC, 6.3A, 50~60HzPower consumption20-52W (without HDD and CD-R/W)Operating temperature-10°C to +55°C	RS-232 interface	1 RJ45 RS232 Port							
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VGA output 1 VGA interface, support resolutions of: 800X600/60Hz, 800X600/75Hz, 1024X768/60Hz External alarm inputs 4 16 16 4 16 16 Relay outputs 2 4 4 2 4 4 Power supply 100-240VAC, 6.3A, 50~60Hz Power consumption 20-52W (without HDD and CD-R/W) Operating temperature -10°C to +55°C	Supplied SATA HDD	320 GB	320 GB	500 GB	320 GB	320 GB	500 GB		
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Relay outputs 2 4 4 2 4 4 Power supply 100-240VAC, 6.3A, 50~60Hz 100-240VAC, 6.3A, 50~60	VGA output	1 VGA interface, support resolutions of: 800X600/60Hz, 800X600/75Hz, 1024X768/60Hz							
Power supply 100-240VAC, 6.3A, 50~60Hz Power consumption 20-52W (without HDD and CD-R/W) Operating temperature -10°C to +55°C	External alarm inputs	4	16	16	4	16	16		
Power consumption 20-52W (without HDD and CD-R/W) Operating temperature -10°C to +55°C	Relay outputs	2	4	•		4	4		
Operating temperature -10°C to +55°C				100-240VAC, 6	6.3A, 50~60Hz				
Operating humidity 10% to 90%									
	Operating humidity								
Dimensions 19" standard rack (450mm*450mm*95mm)				10% t	0 90%				
<pre>Weight ≤8Kg (17.6lbs) (without HDD and CD-R/W)</pre>				standard rack (45	0mm*450mm*95r				



About RISCO Group

RISCO Group creates a comprehensive line of advanced integrated security solutions for the global security market. From cutting-edge software to high-performance wired and wireless systems, RISCO Group delivers exceptionally flexible end-to-end solution to meet any project challenge from the site to the central station.

Exceeding industry standards and customer expectations, RISCO Group's divisions - Integration, Intrusion, Access Control, Fire Safety and Video - provide integrated security, building management and IP/GSM Receiver software, sophisticated detector technologies, IP-based security, access control and fire safety systems - which can be found in commercial, industrial, institutional and residential installations around the world.

Care for Innovation

Deeply committed to providing innovative responses to the needs of its worldwide client base - RISCO Group develops powerful, dependable products based on the latest technologies and industry standards.

Care for Quality

The highest standards of quality and reliability are guaranteed by the company's ISO-9001-2000 certification in R&D,

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Care for Customers

The centrality of the customer is a cornerstone of the company's philosophy. RISCO Group's solutions are designed - first and foremost - with the needs of the customer in mind. Flexibility, ease of installation and use, and cost-effectiveness are built into every solution.

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