

netCam



superVisor

Digital CCTV Network Server



Overview

netCam superVisor™ is a new type of network server that is designed to connect standard Closed Circuit TV video cameras directly to an Ethernet LAN. Cameras can then be monitored or recorded from any PC anywhere on the network. By making use of your existing computer network wiring, the system eliminates the cost, complexity and inconvenience of installing long video cables throughout the building. The system also provides added flexibility - cameras can be easily relocated and the system can be expanded to handle 30-50 cameras, or even many hundreds of cameras, without overburdening your existing network.

You can choose any computer on the network to become a monitoring station, where up to 9 cameras can be watched simultaneously. Motion detection alarms can be set independently for each camera, eliminating the need to constantly watch the monitor for signs of unauthorized movement. You can also choose to automatically record video streams from the cameras. Recorded video streams are stored digitally, so they do not suffer from the image quality degradation associated with VCR tape recordings. Unlike most digital CCTV systems, video recording is extremely efficient, requiring only 500MB to store 24 hours of video from a typical interior surveillance camera.



Flexible

Only a single cable (your existing network cable) is used to connect all of the cameras. You can relocate cameras without the need to re-lay cables - you simply move the camera and its superVisor unit and re-attach them to the network. You can also relocate the monitoring station by simply installing the software and attaching the security key to the new PC. You can easily expand the system by adding a new superVisor unit & cameras at any location where there is a nearby network connection. It's also easy to upgrade your existing CCTV installation.

Low Cost

When compared to the cost of installing conventional CCTV or other types of digital video systems, you will find that superVisor is extremely cost-effective. It is far less expensive than high-end video servers. It outperforms other digital video systems which may require a PC at every camera, or which will only allow a maximum of one or two live video cameras on the network without causing severe network congestion. (Don't confuse live video with low performance imaging systems which only capture and transmit one frame every second or more).

Live Video

Every camera that is connected to a superVisor unit, will transmit its video stream to the monitoring station where it is displayed and recorded at 3-4 frames per second. This speed is sufficient to ensure that you don't miss any movement in the scene and can be sustained with 30 - 50 cameras and/or live video screens running continuously, without causing network congestion even on an already busy network. If you compare this to our competition you will find that nothing comes close to this level of performance. If you require a larger installation, hundreds of cameras can be installed using network switches, a dedicated network or a faster, 100 Base-T, network.

Secure

The superVisor system uses your internal Ethernet LAN to transmit digital video streams to the monitoring station. The video streams are encoded using a proprietary technique so that only an authorized PC, with a valid security key and the netCam Video Management Software, will be able to view images from your cameras. No other user on the network will have access. Alarms can also be set to detect a connection failure due to possible tampering or a defective camera.

Intelligent

The system only records video streams when motion is detected. This feature, coupled with our proprietary streaming video compression technique, allows you to record for longer and it uses far less disk space than other systems. Since you can set up motion detector alarms for each camera, there is no need to watch the video screen during periods when there should be no activity - the computer will alert the operator as soon as any movement is detected. You can even select a region within the scene and set the motion detector to trigger only when movement occurs in that part of the scene.

Powerful

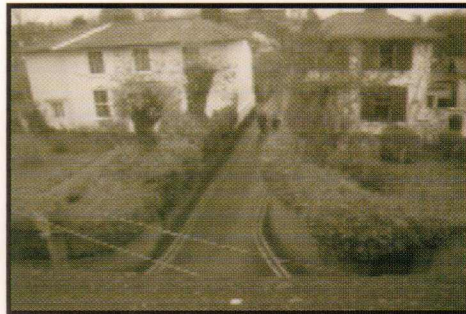
Recorded video sequences are stored on disk and can be rapidly accessed. Recordings are time-stamped and sub-divided into 15 minute files allowing you to quickly locate a recording from any specific date or time. The system can be set to automatically delete archives older than 12, 24, or 48 hours or a week, and you can replay archives while the cameras continue to record. The superVisor system effectively replaces a 9 screen video splitter, a multiplexer, 9 time lapse continuous recording VCRs, 9 video motion detectors and a remote access monitoring system.

Video Management Software



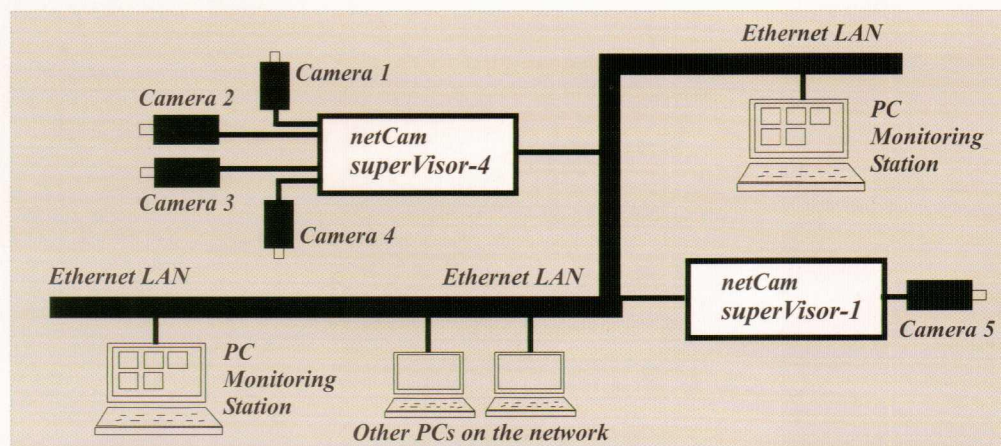
The Video Management Software has been designed to give you maximum control while being very simple to use. The main viewing screen can be set up as a split screen (shown here) or a single screen (sequenced or static). Any screen can show live camera images or a replayed archive. Once you have set up the video channels and started recording, you can reduce the viewer to a miniature row of screens and then use your PC for other tasks. Audible alarms can alert you to any unauthorized movement or a disconnected camera.

superVisor Images



These images were taken from actual superVisor video archives. The image resolution is slightly less than that of a conventional CCTV system. However the image quality is quite sufficient to recognize known individuals and to monitor the movement of people and machinery. Digitally recorded video does not deteriorate and recorded image quality is often superior to VCR recordings. For more examples of image quality, see our web site.

Typical Installation



We offer two versions of the superVisor, the superVisor-1 which accepts 1 video camera and the superVisor-4 which accepts up to 4 cameras. The superVisor-4 is useful where you have several cameras in close proximity to each other (e.g. in the same room).

Applications

Asset protection, remote classroom & playground supervision, patient monitoring, queue length and personnel activity observation, access control, production line monitoring, security, parking lot and interior surveillance.

Technical Specifications

superVisor Hardware Specifications

Video inputs :	
superVisor-1	1 camera (camera not included with system)
superVisor-4	Up to 4 cameras (cameras not included with system)
Video cameras supported	Monochrome, NTSC, PAL or SECAM (auto sensing)
Video input connector	RCA type, 75 ohm
Image resolution	384 x 286 pixels
Contrast	128 shades of gray
Frame rate	3-4 frames per second
Image compression ratios	variable (proprietary streaming video compression)
Network bandwidth consumption	64k bits per second per camera connection (average)
Disk storage requirements	variable, typically 500MB for 24 hours per camera
Computer network	Standard Ethernet 10Mbps
Network connection	10 Base-T (RJ45) Twisted Pair. (10 Base-2 version available by special order)
Network protocol	TCP/IP
Size (H x W x L)	2.4" x 4.1" x 8.9" (60mm x 105mm x 225mm)
Weight	2lbs (0.9 Kg)

Video Management Software Specifications

Computer operating system	Windows 95, 98, or NT 4 (or later versions)
Software security key	Parallel port dongle
Image display	Up to 9 cameras (split-screen or sequenced)
Time stamp	Every recorded frame is date and time stamped
Archives	Sub-divided into 15 minute files
Archival playback functions	Play, Pause, Frame Advance, Rewind, Fast Forward
Frame capture	Print or Save as .jpg files
Video recording	Records during motion only
Motion detection	Automatic (with adjustable sensitivity)
Motion detection alarms	Audible & visual, independently set for each camera
Region selection	User selectable rectangular region for motion detection
Disconnection alarm	Audible & visual, for camera/network disconnection

System Requirements

To use the netCam superVisor you will need one or more black and white video cameras (color cameras can be used, but the system will strip out all color information). You must also have a computer network with the ability to add a connection for the superVisor box. Finally you will need at least one PC attached to the network that can act as the monitoring station. This PC must be a MINIMUM 133 MHz Pentium with at least 32 MB RAM, 1 GB hard disk, CD-ROM drive, a color display board and a 15" monitor. We recommend a Pentium >300 MHz, 64 MB RAM, 10 GB hard disk, CD-ROM drive, sound card, and color display with 4 MB VRAM & 17" monitor.

For more information contact your dealer



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