



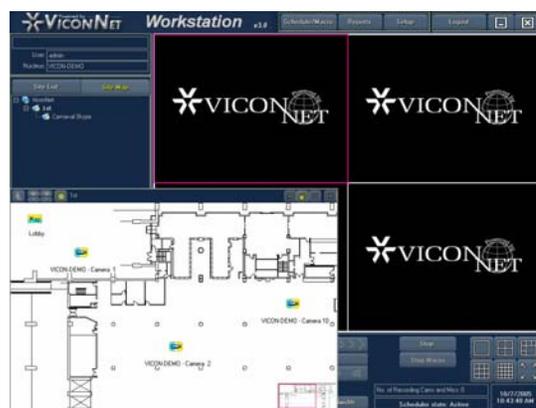
Network Video Recorders and Master Workstation Version 3 Software

- Provides real-time network digital video surveillance
- Graphical Map feature supports realistic camera location (a workstation equipped with dual output VGA card will allow showing the Map on a dedicated monitor while viewing video on the other)
- PTZ control hierarchy for simultaneous users
- Network Video Recorders (NVR) with IP cameras and Digital Recorders (DVR) can be networked to provide a multiple channel viewing/recording system
- Remote configuration from a Kollector Elite Digital Video Recorder or other ViconNet NVRs
- Features LAN and WAN (Internet) connectivity
- Remote alarm capability
- Authorization utility for maximum system security
- Macros can be created to view/listen and record video and audio, PTZ cameras at preset positions and trigger alarms over the network
- Records up to 25 cameras at a time (when only recording)

ViconNet Master Workstation software is available as a package, Model VN1000V3, ready for installation on a PC-type computer (see Technical Information Section) or as a preconfigured PC computer, Model VN-NVR series. This workstation is a preconfigured state-of-the-art PC running Windows XP Professional, ready to review and record video and audio over the LAN and WAN (Internet).

The VN1000V3 and VN-NVR provide video management capabilities when connected with Kollector Series DVRs and ViconNet IP cameras and servers on a standard 100/1000Base-T network. These Network Video Recorders provide exceptionally powerful features that include the ability to review live and recorded video with synchronized audio from up to 16 separate ViconNet video sources simultaneously and remotely configure each ViconNet device over the network. It also allows recording any video and audio passed from these devices on the PC's internal hard drive or attached RAID. The audio feature can be used as a convenient communication tool. The NVR can record up to 25 cameras at a time when in record mode only. If the NVR is used for viewing video as well as recording, performance deteriorates. For optimal performance, it is not recommended to use the same NVR to both view and record video.

ViconNet's Main Window provides a multi-channel display area containing up to 16 connected cameras and microphones. An optional map can be added with actual camera locations, making camera selection simple. The Main Window contains the necessary controls to operate and setup the system. The login window requires a preconfigured User Name and Password for access.



Sample Graphical Map

Vicon Product Facts	UL CE FC	Model No: ViconNet	Product Code: See Table	SEC: 1	SPEC: V113	REV: 606
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Product Specification

Model	Product Code	Description
VN1000V3	8797-00	ViconNet NVR Software; for use with ViconNet version 3 Digital Recorders, Video Servers and IP Cameras. Single site license.
VN500V3	8797-20	ViconNet 16-Channel Viewer Software; for use with version 3 Kollektor Elite, Pro and ViconNet Workstations.
VN100V3	8797-10	ViconNet 4-Channel Viewer Software; for use with version 3 Kollektor Elite, Pro and ViconNet Workstations.
VN-NVR-80	8961-00	Network Video Recorder; Includes ViconNet Version 3 software used to view, record and configure video from IP video devices and Kollektor Elite and Pro Digital Recorders. Tower case and 80 GB of internal storage, RAID compatible.
VN-NVR-400	8961-10	Network Video Recorder; Includes ViconNet Version 3 software used to view, record and configure video from IP video devices and Kollektor Elite and Pro Digital Recorders. Tower case and 400 GB of internal storage, RAID compatible.
VN-NVR-800	8961-20	Network Video Recorder; Includes ViconNet Version 3 software used to view, record and configure video from IP video devices and Kollektor Elite and Pro Digital Recorders. Tower case and 800 GB of internal storage, RAID compatible.
VN-NVR-1200	8961-30	Network Video Recorder; Includes ViconNet Version 3 software used to view, record and configure video from IP video devices and Kollektor Elite and Pro Digital Recorders. Tower case and 1200 GB of internal storage, RAID compatible.
VN-NVR-1600	8961-40	Network Video Recorder; Includes ViconNet Version 3 software used to view, record and configure video from IP video devices and Kollektor Elite and Pro Digital Recorders. Tower case and 1600 GB of internal storage, RAID compatible.
VN-NVR-80-R	8962-00	Network Video Recorder; Includes ViconNet Version 3 software used to view, record and configure video from IP video devices and Kollektor Elite and Pro Digital Recorders. Rack mount case and 80 GB of internal storage, RAID compatible.
VN-NVR-400-R	8962-10	Network Video Recorder; Includes ViconNet Version 3 software used to view, record and configure video from IP video devices and Kollektor Elite and Pro Digital Recorders. Rack Mount case and 400 GB of internal storage, RAID compatible.
VN-NVR-800-R	8962-20	Network Video Recorder; Includes ViconNet Version 3 software used to view, record and configure video from IP video devices and Kollektor Elite and Pro Digital Recorders. Rack Mount case and 800 GB of internal storage, RAID compatible.
VN-NVR-1200-R	8962-30	Network Video Recorder; Includes ViconNet Version 3 software used to view, record and configure video from IP video devices and Kollektor Elite and Pro Digital Recorders. Rack Mount case and 1200 GB of internal storage, RAID compatible.

Table 1: Models, Product Codes and Descriptions

A Nucleus is one of the workstations (NVRs) or Kollektors in a system that enables each system device to share video and configuration commands. The Nucleus can be configured on a specified Kollektor recorder or ViconNet Workstation. Backup versions of the Nucleus can also be configured on selected recorders or workstations.

ViconNet utilizes two different video compression methods, selectable based on the application's requirements.

- **NORMAL:** Optimized MPEG4; a proprietary compression algorithm developed by Vicon that produces outstanding video quality and extended recording durations.
- **FULL:** JPEG; standard full frame compression for use in situations that cannot use a motion compensation compression.

ViconNet uses an MD5 type video authentication algorithm. MD5 is a standard authentication that is based on a 128-bit message used to verify data integrity.

ViconNet has vast features to view, record and playback video including:

Site Devices: Cameras, microphones and sensor devices can be remotely configured.

Users and Groups: Users can be configured to access the system with custom privileges.

Data Storage Allocation: The local hard drive, RAID's or remote recorders and workstations can be used for remote video storage.

Quick Playback: Allows instantaneous playback of any currently recording, live-view window of a local camera.

When that screen is selected, there are 2 options; display of the camera information or selection of 7 playback intervals from 10 seconds to 30 minutes. When selected, the playback video is displayed in an adjacent window and the recording for all cameras is unaffected.

Play from Time: Allows calling up playback images from any database on the network directly from the Main Screen.

Macro Programming: Predetermined routines to display and record cameras and activate devices at specific times.

Scheduling, Display and Alarm Notification: Establishing routines for recording and operating devices.

Museum Search: Review of playback video using Areas of Interest (AOI) and scalable motion detection to capture video events.

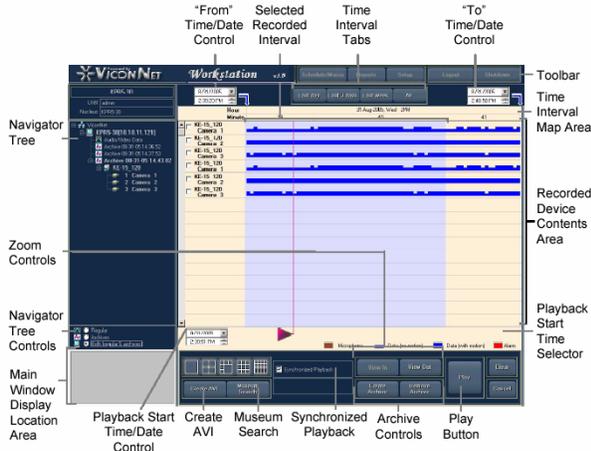
Site and Device Tree provides a physical list of all known network Site areas and connected cameras, PTZ cameras and microphones.

Current Details Area provides a set of fields used to show the current local machine name, user and Nucleus name. These devices are represented by graphical symbols. Local components in the Site and Device Tree are selectable and configurable.

Navigator Window graphically displays a timeline of recorded video. It contains all function buttons necessary to control playback video. A scalable timeline can be set to define the "from" and "to" time/date intervals of video and audio. Cameras and Microphones can be selected from the Navigator Tree and displayed in the timeline. The display mode can be selected to configure the number of cameras

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played back. A "Create AVI" button can be used to create an AVI file of the selected single camera video segment. When the Play button is selected, the Main Window appears showing the previously selected video.



Control Dialog Display Area provides a space to work in conjunction with the Other Controls Area. When one of the Other Controls is selected, the corresponding button palette appears in this area. The Other Controls are Playback, PTZ, Controls, Print, Export and Picture.

Toolbar provides access to all major functionality of the system. The Schedule/Macro, Reports, Setup, Logout and Shutdown buttons are accessible in this area. The Schedule/Macro button allows the running of preconfigured combinations of cameras, microphones, sensors and PTZ programmed routines. The Reports button allows the viewing of system status reports. The Setup button allows configuration of the local and remote components, authorizations, sites, authentication, utilities, schedules and macros. The Shutdown button allows full shutdown of the system without closing the software.

Display Mode Controls Area provides a palette of buttons to select and modify the video display grid for simultaneous live view, playback and record.

Function Controls Area provides a palette of controls to manually enable the video recording, stop currently running macros in the system and set the video quality.

Other Controls Area provides a palette of buttons that only become active when a valid device is selected from the Site and Device Tree. When active, the selection of these buttons causes the Control Dialog Display Area to display additional control information. The Other Controls are Playback, PTZ controls, Print, Export and Picture.

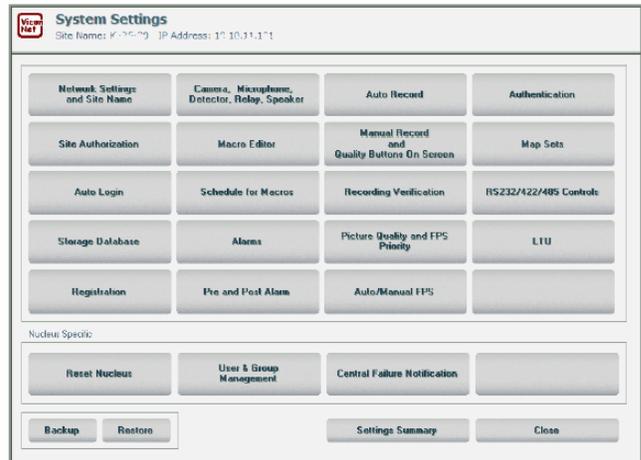
System Status Area provides current information on the system state. The information is an estimate of the remaining recording time, number of recording cameras and microphones and the Scheduler state of activity.

Playback Controls Area provides a palette of buttons used to playback video previously selected in the Navigator Window. The control buttons include Play, Forward, 7-speed Fast

Forward, Backward, 7-speed Fast Rewind, Stop/Pause, Previous Frame and Next Frame.

Video Display Area is a multiscreen-selectable view area where all live view, playback and recorded video can be viewed. This area can be displayed in single, two-by-two (quad), hexa (six), tree-by-three (nine), four-by-four (sixteen) and full screen (maximized to entire screen). The current video quality is displayed in the lower left portion of each video space. Each multiscreen view area has a specific default video quality which can be reselected.

There are several high-level configuration features allowing custom setup of the system. The System Configuration feature is comprised of a Main Settings Menu. This menu allows setup of the network and sites, macros, devices, authorization, alarms, Autologin, scheduling, Autorecord, Storage Database Utilities, Authentication, Controls, Manual record/quality, Registration and priorities.



The Network and Sites configuration allows setup of all IP address information, a system Nucleus and Backup Nucleus. The Nucleus acts as the coordinator of all running system applications. The Backup Nucleus acts as the hot-standby Nucleus in the event that the primary Nucleus goes offline, providing uninterrupted system functionality. A Network Settings Menu provides a comprehensive worksheet for each networked device. When all units have been setup, the resulting connected devices define the site.

Macro configuration can be defined for recorded or displayed/played cameras, microphones and sensors, command duration, recording destination, device ID, picture quality, refresh mode, recording rate (fps), related devices and alarm activation.

Device configuration is set for system recognition and operation. Valid devices are cameras (with PTZ), microphones and sensors. All devices are assigned a unique ID number and title descriptor which can be changed. Devices can also be setup for RS-232, RS-422 and RS-485 protocol and supported with existing manufacturer's drivers where applicable.

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Authorization rights setup can be performed using the Site Authorization screen. Group rights are configured by specific site. Rights provide authority to perform all system functions. Alarm response is performed using system macros. Alarms can be programmed to annunciate under specific schedules. Alarms can be triggered by physical sensors, detected video loss, detected video motion, or messages sent over the network. When Video Motion Detection (VMD) is selected, an Alarm Wizard Setup screen displays. The selected video is displayed in an Area of Interest (AOI) window. A set of tools is available to define the specific AOI using a grid configuration utility. The sensitivity of the motion detection area can also be set. An alarm will trigger and log, each occurrence of the motion conditions being met.

Storage Database Utilities allows setup and usage of detected hard disks locally and remotely. Once established, any remote workstation or recorder can use the Workstations hard disks for recording data.

Authentication is configured using the Authentication Settings screen. Authentication display is configured by site and affects the destination video. A check box is available to enable video authentication on the video generated. A check box is available to enable the video authentication symbol (A). This symbol verifies that the video generated is authentic.

Central Fail Notification (CFN) enables workstations and transmitter sites connected to the same nucleus to receive notifications indicating that certain applications have failed, for example, macro, recording and database failures. CFN increases the user's awareness of problems that could occur at unmanned remote sites. It sends error/warning notifications, via the network, to other sites that share the same nucleus. The notifying site is the same one that handles the nucleus.

Recording Verification System (RVS) ensures continuous recording by notifying users of any recording errors, since automatic recording and scheduled macros are two of the Kollektor's most important features. RVS monitors automatic recording activity (audio and video) at all times, both locally and over the network. The RVS includes a feature in which the RVS causes the system to reboot under specific conditions.

16 x 4 Matrix Control allows any NVR workstation or Kollektor Elite to remotely control a 16 x 4 analog switcher (optional on Kollektor Pro models). This allows switching analog cameras to analog monitors over the network. (Note:

16 x 4 matrix is a feature on new Kollektor hardware and may not exist on older systems.)

VN1000V3 can be installed on a suitable PC running Windows XP. ViconNet requires 3 GB of hard disk space to install and operate. ViconNet has a comprehensive uninstall utility to remove it from a computer.

Vicon requires the use of uninterruptible power supply systems (UPS) to prevent voltage fluctuations that can affect operation, cause video loss and damage to the equipment. Failure to comply voids the unit's warranty.

ASSOCIATED EQUIPMENT AND ACCESSORIES

Kollektor Elite Digital Video Recorder, Product Code varies by model: 16-channel networked digital video recorder for use with Kollektor Pro Series recorders and ViconNet VN-NVR systems. Product Specification V112.

Kollektor Pro Digital Video Recorder, Product Code varies by model: 16-channel local-video networked digital video recorder for use with Kollektor Elite series recorders and ViconNet VN1000V3/VN-NVR Workstations. Product Specification V128.

Model VN-MON Monitor, Product Code 8222: 17-inch VGA monitor for use with Kollektor Pro Series recorders and Vicon Net VN-NVR systems.

Model VN-17FLT Monitor, Product Code 8237: 17-inch flat screen monitor for use with Kollektor Pro Series recorders and ViconNet VN-NVR systems. Product Specification V127.

NETSWITCH-8 Network Switch, Product Code 7787: 8-port, 10/100 autosensing network switch, stackable.

NETSWITCH-16 Network Switch, Product Code 8495: 16-port, 10/100 autosensing network switch, stackable. Product Specification V161.

NETSWITCH-24 Network Switch, Product Code 8495-10: 16-port, 10/100 autosensing network switch, stackable. Product Specification V162.

Uninterruptible Power Supplies: 725, 1000, and 3000 VA units with DB9 (RS-232) and USB ports; 120 VAC input/output. Product Specification V147.

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VN1000V3 COMPUTER REQUIREMENTS

- Operating System:** Windows XP.
CPU: Pentium IV, 2.3 GHz minimum.
RAM Memory: 512 MB minimum.
Hard Drive: 3 GB of free space required.
Mouse: PS-2 or USB type required.
LAN Card: 100 Mbps required for network connection.
VGA Adapter: Video adapter with onboard 128 MB RAM. Required settings are 1024 x768 pixels and 32-bit color.
VGA Monitor: 17 in. (432 mm) size, 1024 x768 pixels, 32-bit color minimum.

VN1000V3 SOFTWARE FEATURES

Recording

Capability: Up to 25 cameras at a time when not simultaneously displaying.

Main Window

Screen: A multi-channel display area containing up to 16 connected cameras and microphones and all necessary controls to operate and setup the system.

Graphical Map: Supports realistic camera location (a workstation with a dual output VGA will allow showing the Map on a dedicated monitor while viewing video on the other).

Site and Device

Tree: A physical list of all known network Site areas and connected cameras and microphones.

Quick Playback: Start video playback of live camera with a few clicks.

Play from Time: Call up images from any database on the network from Main Screen.

Navigator Window: A graphical display of recorded video. It contains a set of function buttons used to access the video on-screen.

Control Dialog

Display Area: A space to work in conjunction with the Other Controls Area.

Toolbar: An area providing access to all major functionality of the system.

Display Mode

Controls Area: A palette of buttons to set the picture quality (resolution) and refresh mode of the live video display.

Other Controls

Area: A palette of buttons that activate when a valid device is selected from the Site and Device Tree.

System

Configuration: A Main Settings Menu used for setup of devices, authorization, and all other system functions.

Function Control

Area: A palette of controls used to enable or disable the video recording as well as any currently running macros in the system.

Network and Sites

Configuration: The network portion of this feature allows setup of all IP address information and a system Nucleus and Backup Nucleus.

Macro

Configuration: Macros can be defined for recorded or displayed/played cameras, microphones and related devices (sensors).

Device

Configuration: Devices can be configured for system recognition and operation.

Authorization

Rights Setup: Group rights can be configured by specific site. Rights provide authority to perform all system functions.

Log Reporting: Continuously running activity log.

Schedule Function: System can be set to record and display a video "tour" of multiple channels.

Alarm

Configuration: Alarms can be programmed to announce under special conditions.

Storage

Database Utilities: This utility allows setup and usage of detected hard disks locally.

Authentication: Video authentication is established by site and affects display of destination video.

Central Failure

Notification (CFN): Sends notifications indicating certain applications have failed.

Recording

Verification System

(RVS): Ensures continuous recording by notifying any recording errors.

VN-NVR WORKSTATION

ELECTRICAL

Motherboard/

Power Supply: ATX motherboard with 300 W power supply.

Operating System: Windows XP.

CPU: Pentium IV, 2.66 GHz.

RAM Memory: 512 MB DDR-SDRAM DIMM.

Floppy Drive: Standard 1.44 MB type.

Hard Drive: 80 GB to 1.6 TB.

Pointing Device: PS-2 wheel mouse.

Keyboard: PS-2, 101 keys.

LAN Card: 100 Mbps onboard.

VGA Adapter: Video adapter with onboard 128 MB RAM (1028x768 pixels, 32-bit color).

Cooling: Internal fan, 45 cfm flow rate.

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MECHANICAL

Case Style: Standard mid-height tower or rack-mount.

Dimensions: Tower

Height: 16.7 in. (424 mm).

Width: 7.5 in. (191 mm).

Depth: 16.7 in. (424 mm).

Rack Mount

Height: 3.4 in. (86 mm).

Width: 19.0 in. (483 mm).

Depth: 22.5 in. (572 mm).

Weight: Tower: Approx. 30 lb. (13.6 kg).

Rack Mount: Approx. 26 lb. (11.8 kg).

Construction: Steel and plastic.

Color: Black.

Shipping

Dimensions: Tower

Length: 30 in. (762 mm).

Width: 13 in. (330 mm).

Height: 21 in. (533 mm).

Rack Mount

Length: 30 in. (762 mm).

Width: 13 in. (330 mm).

Height: 21 in. (533 mm).

Shipping Weight: Tower: 40 lb. (18 kg).

Rack Mount:

Shipping Volume: Tower: 4.7 ft³ (0.13 m³).

Rack Mount:

ENVIRONMENTAL

Operating

Temperature Range: 32 to 104° F (0 to 40° C).

Operating

Humidity Range: 0 to 95% relative, non-condensing.

Storage

Temperature Range: -4 to 158° F (-20 to 70° C).

Storage

Humidity Range: 0 to 95% relative, non-condensing.

Product Specification

