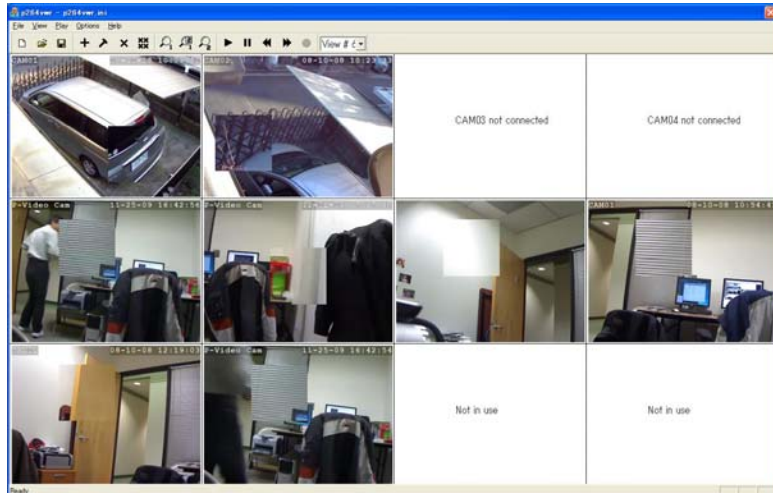




Video Magnifying Glass™ (VMG) "Details-on-Demand" on multi-resolution, multiple-mobile-client video devices



p-Video™ Network Video Recorder (NVR)

Precoad's breakthrough p-Video™ Video Magnifying Glass™ (VMG) and video zoom/pan functionalities empower individual video viewers with "Details on Demand" (DOD) "Region-of-Interest" (ROI), to "see what and where they each want to see -- live, close-up, with full clarity", on multi-resolution, multiple-mobile-client video devices, as well as on netbooks, PCs, and TVs. p-Video's unique full clarity utilizes the higher resolution original video source data from IP network cameras and Network Video Recorders (NVRs), and micro SD cards, without any content creation (such as pixel replication or conventional "magnification", which cause blurring). By engaging the VMG, individual mobile users can truly magnify or zoom in to view video details in any selected window or region, without interrupting full-screen viewing -- at full speed, in slow-motion, freeze-frame, fast-forward, or fast-backward. Network video bandwidth usage (BWU) can be significantly reduced, with less video data needed, thereby significantly reducing video infrastructure costs, capital expenditures (CapEx), and operating expenses (OpEx).

Implementations can be in either [software](#) or hardware.

In Security Surveillance and Monitoring (SSM) applications, p-Video provides optical zoom/pan video clarity and quality, but at much lower digital zoom/pan cost.

Key new feature set:

- H.264/AVC p-Video
- MPEG-4 Part 2 p-Video
- Live individualized p-video viewing on multiple mobile phones, netbooks, and PCs
- Live multi-resolution video viewing
- Video "Details on Demand" (DOD) "Region-of-Interest" (ROI) with p-Video's patent-protected Video Magnifying Glass (VMG) and video zoom/pan, with unique full clarity by utilizing the higher resolution original source video
- Higher resolution original video source data from IP network cameras, Network Video Recorders (NVRs), and micro SD cards
- Optical zoom/pan video clarity and quality, but at much lower digital zoom/pan cost
- Network video bandwidth usage (BWU) reduction -- less video data needed
- Reduction in video infrastructure costs, capital expenditures (CapEx), and operating expenses (OpEx)
- Multi-camera, multi-resolution, multi-mobile display checkerboard on PC-based p-Video System NVR display monitor
- Displays cameras, mobile displays, connections, NVRs, storage hard drive
- Operational features -- record, play, index camera ID, data, time, motion detection, motion tracking, video playback, forward/backward search
- [Software](#) or hardware implementations

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General	
p-Video algorithm type:	Proprietary.
Patent information:	U.S. Utility Patent Application No. 11/639,780, International Patent Application No. PCT/US2007/084941, U.S. Utility Patent Application No. 12/145,453, U.S. Utility Patent Application No. 61/075,305, U.S. Utility Patent Application No. 12/173,768
Algorithm complexity:	Very low. Easy to implement.
Video picture quality:	Full clarity, by utilizing the higher resolution original video source data.
Latency:	No perceptible latency.
Content creation:	None. Utilizes the higher resolution original video source data.
Memory requirement:	Low.
Standards compliant:	Yes. p-Video bit stream can be decoded/played on standard decoder.
Implementations:	Software, or hardware.
Display & Graphics	
Video Resolutions:	800 x 480, 720 x 480, 640 x 480, 480 x 320, 320 x 240
Video Formats:	H.264/AVC, MPEG-4 Part 2, MJPEG
Color Support:	Color, B/W
PC requirement	
CPU speed:	800 MHz or above 32-bit (x86) or 64-bit (x64) processor
Memory Size:	512 MB or above of system memory (with 448 MB or more available to the OS after memory allocation for graphics)
Storage:	5 GB or above of free hard disk space
Input/Output:	Ethernet, Wireless
Network & Communication	
Connectivity Technology:	Wireless, Ethernet
Wireless Technology:	Wi-Fi 802.11b/g
Protocols:	HTTP, TCP/IP, UDP/IP, RTP, RTSP, RTCP, SDP, 3GPP
Additional Information	
Simultaneous Viewers:	Up to at least 32
OS Platform Support:	PC: Windows XP, Vista, Windows 7 or above Mobile: Window CE 5.0 or above
Security Features:	User ID/Password authentication
Video Encoder:	H.264/AVC, MPEG-4 Part 2, MJPEG
Wireless Features	
Frequency:	2.4000 - 2.4835 GHz
Number of Channels:	11
Transmission Speed:	Up to 54 Mbps
Encryptions:	WPA/WPA2, WEP



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