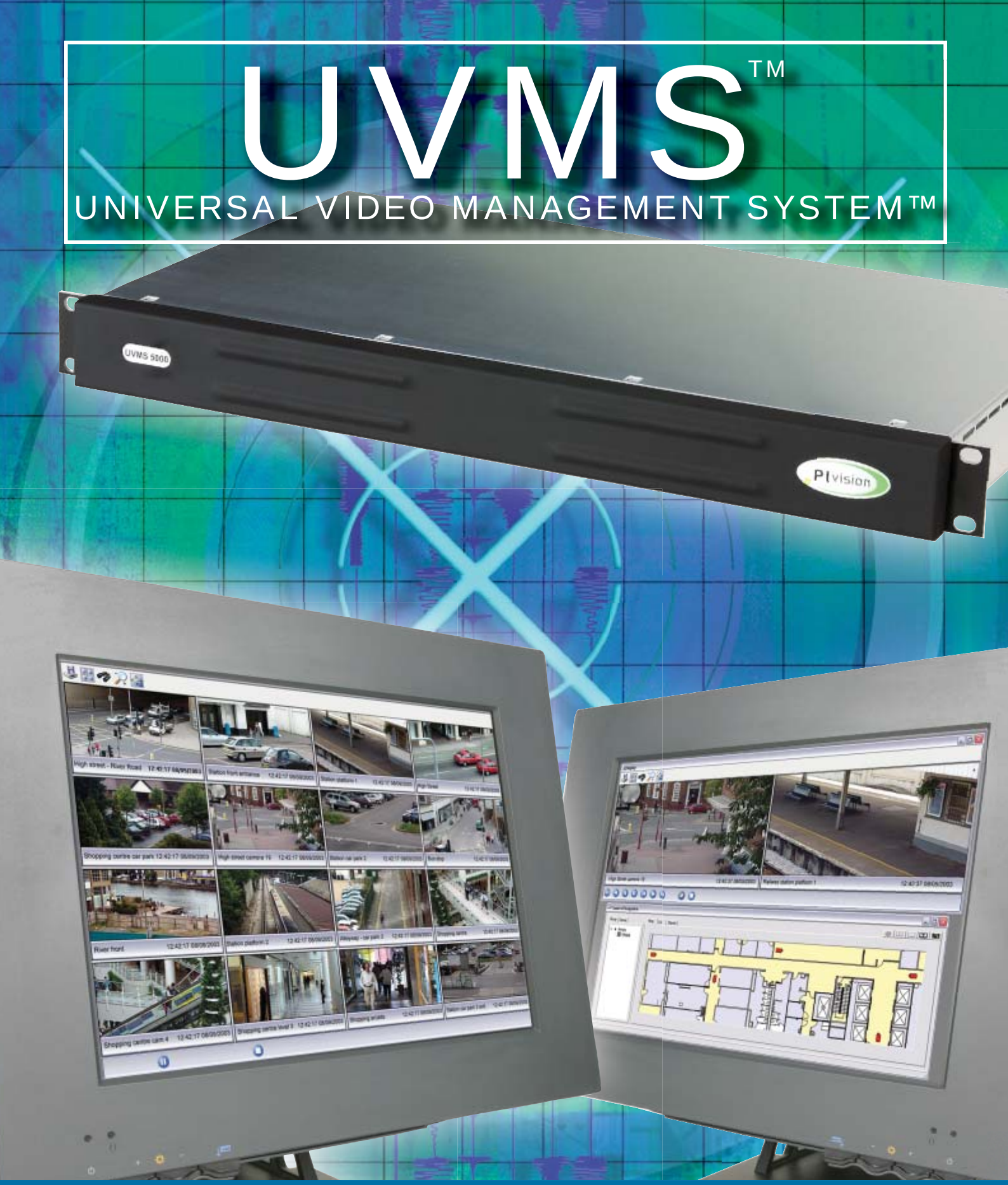
UVMS™

UNIVERSAL VIDEO MANAGEMENT SYSTEM™



UNIVERSAL VIDEO MANAGEMENT SYSTEM™

Another first for the CCTV industry from the world leader in scalable network digital video recording

PIvision

www.pi-vision.com

FEATURES & BENEFITS

PI Vision introduces its innovative digital video recording (DVR) solution which enables you to mix and match analog and IP network cameras within the same system. The Universal Video Management System™ (UVMS™) features advanced recording, camera mapping and image replay functions not generally found in other systems. Fully scalable, it forms a robust backbone for any new or existing CCTV system. Its ability to grow with your security requirements means the system you install today has a virtually unlimited ability to expand in the future while working over a variety of network protocols.

Ease of use

To an operator, the UVMS™ couldn't be simpler to operate. Using the graphical user interface (GUI) and a mouse, you can activate the most commonly used functions through drag-and-drop or clicking on an icon. Viewing either the live or recorded video of a particular camera is just a matter of dragging and dropping the icon of that camera from a floorplan map to a corresponding window on the monitor. Easily configure screens to display 1, 4, 9 or 16 camera views, in live, recorded or a mixture of modes.

Camera head control (pan-tilt-zoom) is supported through the industry-standard RS485 serial control, with a minimum of latency, using either a mouse or separate joystick controller.

Scalable to over 5000 cameras and supporting multiple sites and video formats, the UVMS™ remains simple to use because the architecture of the system is invisible to the operator. No matter how large the system becomes, nor the number of components involved, it continues to provide seamless navigation between individual cameras, zones and geographically dispersed sites. This eliminates the need for annoying multiple log-ins or set-ups as one moves around the system.

Advanced user permission and authentication functions provide true multi-user/multi-server functionality. Recording performance is unaffected even when multiple users simultaneously access video recordings. Recording can be continuous real-time, full-frame or triggered by a variety of internal and external triggers such as built-in video motion detection, dry contact, serial RS232 or network APIs.

The UVMS™ has built-in video wall capability to drive multiple projectors or monitors from one access station, with the ability to support over 100 video output streams simultaneously.

High end recording performance

The UVMS™ supports ISO-standard MPEG2 and JPEG file formats, and users can choose between them on a per channel basis to optimize system performance. The choice of formats is invisible to the operator and has no impact on playback performance. Video motion detection (VMD) is supported on all channels, even in MPEG mode.

Unlike other systems, the UVMS™ supports reverse frame replay, from both MPEG and JPEG sources, making it a simple matter to track a suspect back in time while switching between cameras. Because it doesn't use conditional refresh encoding, there aren't any "dead bits" in the video stream meaning you won't miss low-contrast details or faint images even at night.

And unlike other systems, full-frame MPEG recordings don't suffer from double-imaging or interlace tearing in freeze-frame mode, meaning you will get perfect still frames even at maximum resolution.

Synchronization of audio to video signals can be achieved across multiple channels, yielding CD-quality recorded audio which is lip-synced to the video, so it's highly suitable for applications where the audio record is as important as the video.

Another unique feature of the UVMS™ is the ability to specify the resolution of the system, usually referred to as CIF, 2CIF and 4CIF (or full D1 resolution). This can be specified either for each channel or on a system-wide basis, depending on operational requirements, to maximize the video resolution and quality while maintaining an efficient ratio between image quality and storage requirements.

Recording modes include continuous, pre- and post-trigger or continuous with trigger (to facilitate event searching), particularly useful when used with video motion detection. Smart Search enables users to search archived video for activity, quickly and easily.

Robust architecture

The UVMS™ enjoys a level of robustness unmatched by any other DVR. The arrangement and use of components in the UVMS™ relies on Distributed Architecture. By distributing crucial directory data to various components within the system, you are not reliant on a master server which, if it failed, would blind the whole system.

In addition, advanced self-diagnostic systems provide for continuous health monitoring of the system down to the line-replaceable unit level. All error messages are logged, making it a simple matter for engineers to dial into your system (subject to security protocols) and see a complete list of diagnostic reports.

The distributed architecture makes it a simple matter to expand the system over time. As new modules are added, the system reconfigures itself to take account of the new components, and it readily interfaces with all leading matrix and access control systems.

Image export and security

The UVMS™ includes PI Vision's Evidential Video Master™ (EVM) software package for the export of authenticated images for use by police and the courts. Every frame of video contains an encrypted watermark which identifies the camera and time and date it was recorded.

Not only that, but when it comes to exporting video for evidential purposes, nothing can match the EVM for ease of use and advanced functions. EVM helps to catalog the clips you need to export, packages them up for export to the recording

UVMS™

Control a video wall or bank of monitors from an access station. Ideal for displaying camera maps, a mix of live and replay video, overlay information and more.

Drag-and-drop cameras from the map window into the replay or live window to get the camera view you need, when you need it. The UVMS™ supports multi-screen access stations, making the system more powerful and simpler to use at the same time.

media of your choice (e.g., CD-R, DVD-R or removable hard-disk) and even includes a copy of the viewing software to ensure that wherever it goes, the evidence can be played on a standard PC without the need for the user to install the software on their system.

Storage options

The UVMS™ supports a range of disk storage options. Whether you record images locally or archive them to a central disk farm, the images can be retrieved instantly with no reference to where they are physically stored. And it supports redundant off-site recording to facilitate disaster recovery scenarios.

Choose between a variety of storage media on a site-by-site basis. Disk array storage can be selected for archiving images for a small number of cameras or upgrade to RAID5 or RAID15 fault tolerant storage for recording large numbers of cameras robustly and securely.

Remote access options

Authorized users can gain access to the system remotely, via PSTN lines, mobile phones, ISDN or DSL. A high-speed connection is not required for mobile or remote access on the move as 33kbits transfer rates over analog lines enables three frames per second viewing rates, giving you a fully functional access station including full search and replay functions even from a laptop.

The UVMS™ also allows you to send images to your staff on the ground, either to their mobile phones or PDAs, to facilitate quick response to security situations.

Reputation for excellence

PI Vision, a pioneer in CCTV technology, has been bringing you new innovations in digital video recording technology since 1987. Customers agree that its DVR solutions are second-to-none. Ease of use and power combined with unlimited expandability are the most important factors for PI Vision customers.

In addition to its pioneering DVR products, customers appreciate PI Vision's attention to service. Whether it's installation or technical support, the team at PI Vision are committed to answering your questions directly and honestly.

The UVMS™ quite simply sets a new standard for digital video recording which is what you expect from…

PI Vision — the world leaders in scalable network digital video recording

Universal Video Management System™

Common features

- IP and analog camera compatibility
- Lip-sync CD quality audio
- Export video using Evidential Video Master™
- Single click to view live or replay video
- Full set of reverse play and step controls
- Resolution selectable on a per channel basis
  Supports CIF, 2CIF and 4CIF
  PAL: 720x576, 720x288, 360x288
  NTSC: 720x480, 720x240, 360x240
- Storage duration: 1, 7, 14 and 31 days
  3, 6 or 12 months
  Continuous recording 24/7
- Supports network protocols: PSTN, ethernet, ISDN, DSL
- Full D1 MPEG2 recording
- Video wall capability supporting 100+ video streams simultaneously
- Fault tolerant, distributed architecture
- Supports ISO-standard JPEG and MPEG2
- Up to 72 camera inputs per server
- Built-in video motion detection on all channels
- Continuous, pre- and post-trigger recording or continuous with triggering to facilitate searching
- High security with encrypted image watermarking and audit trail
- Scalable to 5000+ cameras
- Interfaces with all leading matrix and access control manufacturers
- 25fps (PAL)/30fps (NTSC) full frame recording
- Drag and drop camera navigation
- Smart search
- Multi-user/multi-server operation
- Full image refresh every frame
- Audio & Video interfaces
  Video: BNC composite 1V pk-pk
  Audio: 3.5mm stereo jack line level (0.77V RMS 0 dBu line level)
- PTZ control: RS485 serial control
- Event/alarm trigger: video motion detector, dry contact, RS232 serial and network API
- Remote control over telephone and cell phone
- Supports wireless IEEE802

Model features	UVMS 3000	UVMS 5000 - Disk Array	UVMS 5000 – RAID Storage
Site type	Integrated system for smaller sites and satellite locations	Modular system for larger sites	Modular system with redundant storage for larger sites
Camera inputs	Up to 16 per server	Up to 48 per server	Up to 72 per server
Recording frame rate	Max 120 FPS	Max 1,440 FPS	Max 2,160 FPS
Disk storage	Disk array internal storage to 1,800 Gigabytes per server	Disk array internal storage to 7.2 Terabytes per server	RAID5 or RAID15 fault tolerant external storage to 23.1 Terabytes per server
Integration	Single box solution including: • capture units • server • hard disk • access station	Modular solution including: • server & disk in one unit • external capture units • external access stations	Fully modular solution including: • external capture units • external server • separate RAID • external access stations
Dimensions	4U x 19” x 20”	2U-5U x 19” x 26”	2U x 19” x 20”
Power consumption	300 Watts	500-900 Watts	250 Watts
Heat output	943 BTU/hr	1571-2828 BTU/hr	785 BTU/hr

Typical applications: Public Surveillance • Museums • Airports • Public Transportation • Sea Ports • Correctional Institutions • Casinos • Police Stations and Interview Rooms • Maximum Security Sites • Banks & Financial Institutions • Shopping Malls • Retail • Point-of-sale and ATMs • Amusement Parks

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Download white papers on digital video recording and product information from the PI Vision website: www.pi-vision.com

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