

# PROXIMA



We power Your eyes



# PROXIMA DVMS

DIGITAL  
VIDEO  
MANAGEMENT  
SYSTEM

**PROXIMA DVMS** is a fully-featured 4, 8 or 16 channel digital video recording and management system. It seamlessly combines varying recording modes with both self-contained motion detection and external alarm inputs. Built-in relay controller provides command of external devices either manually or automatically in response to pre-programmed conditions.

As with all CIEFFE products, PROXIMA DVMS uses **Wavelet compression technology** implemented in hardware to provide 50/60 Images per Second of the ultimate in crisp, clear high-resolution full-frame images. Image resolution is a startling 720x576/720x480 (PAL/NTSC) and both image compression and image resolution can be adjusted on a camera by camera basis. All images are protected against tampering or modification via encryption.



## Pentaplex Functionality





## Delta Wavelet Compression



### Real Time Motion Detection

Motion detection can be individually programmed on a per camera basis. Individual sensitivity, area of interest etc. can be selected for each camera.

### Pentaplex Functionality

PROXIMA DVMS provides real time functions of recording, playing, viewing, archiving and transmitting video and/or audio. Recording never stops.

### Hardware based Wavelet compression

Wavelet compression algorithm provides for very high degree of visual quality even at very high compression rates with no blocky artefacts in the compressed image. Our unique hardware implementation of Wavelet based compression gives to PROXIMA DVMS the ability to process many high resolution full frame images coming from up to 16 unsynchronised cameras, in real time.

### Delta Wavelet

PROXIMA DVMS relies on a proprietary conditional refresh wavelet based transmission algorithm to make high quality video over extremely low bandwidth a reality. Delta Wavelet is based on MPEG4 algorithms and provides unmatched levels of visual quality in relation to available bandwidth. Delta audio transmission is based on an Enhanced GSM algorithm standard for optimum voice quality. As with Variable Image Resolution, Delta Wavelet can be enabled with a single mouse click at any time. The quality of recorded images at the server is unaffected: the image quality and the recording rate are not dependent on transmission image quality or rate.



### Flexible, Multistream Recording

PROXIMA DVMS are capable of multiple recording speeds and can adjust any camera recording rate “on the fly” in response to varying conditions. Simultaneous Prime, Time-lapse, Alarm camera recording can be accommodated with customized recording speeds per sector. For example, the unit can be time-lapse recording sixteen cameras when an alarm condition is detected relating to camera one, e.g. the Commercial Teller. The DVMS continues to record the time-lapse images while simultaneously recording camera one in real time until the alarm condition clears. This feature can be programmed in many different combinations of cameras, recording rates, motion detection and external alarm inputs. The use of separate sectors makes review of each category simple and fast!

### Variable Transmitted Image Resolution and Audio Quality

Transmitted audio and video quality can be adjusted on the fly from every CIEFFE’s workstation. Switch image resolution (Full - 720 x 576 pixels, CIF - 360 x 288 pixels or QCIF - 180 x 144 pixels) so as to increase refresh rate of incoming images or maximise visual quality of incoming images. Audio quality is automatically adjusted to match the available bandwidth.

### Long Audio/Video Storage Periods

PROXIMA DVMS recorded audio and video can be stored online! – The recorded images and audio are stored on HDDs and quickly accessible. Forget video tapes or human intervention - CIEFFE’s DVMS server can be equipped with up to 1280 GB of IDE HDD storage onboard to last you a very long time.

### Optional RAID 5 Data Protection

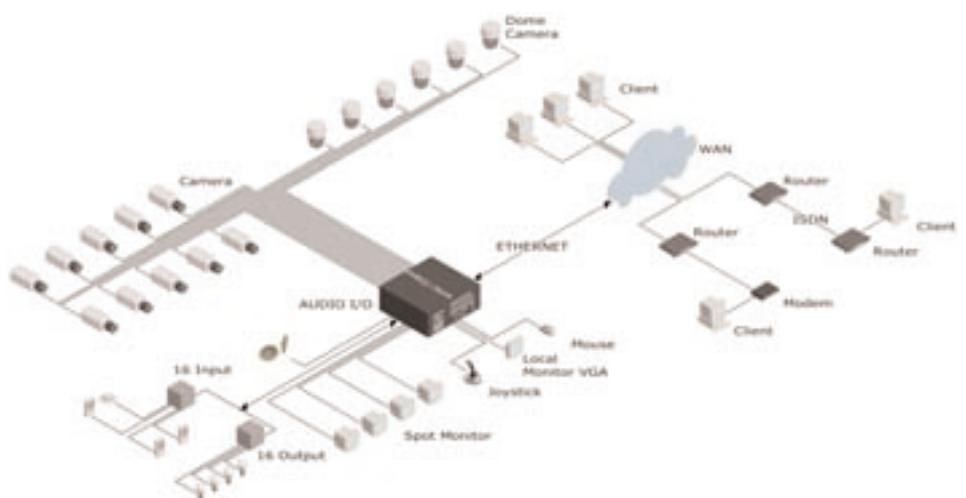
CIEFFE’s DVMS can be configured with up to 1280 GB of RAID 5 fault-redundant storage onboard. This eliminates the need for round-the-clock backup and prevents data loss and downtime due to HDD failures.

### Optional External Storage

For extremely demanding audio/video storage requirements, PROXIMA DVMS offers sophisticated RAID 5 fault-tolerant external IDE based storage providing you with cost-effective way to store many months of audio/video online. The storage is scalable from 700 GB to 16.8 TB of RAID 5 and is 19” rack-mountable.

### Embedded Technology

Embedded Operating System ensures maximum efficiency, system uptime and reliability. Rich networking and storage features, superior compatibility with a large array of hardware devices is unmatched by any other computing platform. Every PROXIMA DVMS has a built-in VisionWeb Web Server. View live or recorded images, listen to live and recorded audio or control PTZ cameras over any TCP/IP connection within Internet Explorer web browser. No special software is required. Intelligent bandwidth/picture content sensing and variable transmission quality make many IPS and streaming audio possible even over very low bandwidth communication lines.



### Full Remote Control and Audio/Video Transmission

Thanks to the true client-server architecture PROXIMA DVMS lets you view live/recorded video and audio, control, configure and perform software upgrades remotely, with no functional differences between operating locally or remotely.

### Single Client Platform

All CIEFFE software works with any CIEFFE DVMS. The clients are completely hardware independent and can log into others 4, 8, 16 and Real Time units without any additional add-ons or configuration. Software transparency allows a single client machine to control many different models and versions.

### PROXIMA ActiveX Developer's Kit

PROXIMA DVMS is an open platform that lets you interface third party equipment or develop your own client applications. All functionality, including live, playback, PTZ control, smart find and even Delta Wavelet and server configuration is available through CIEFFE high level APIs.

### Camera Boost

PROXIMA DVMS (Multiplexed) can be configured to automatically increase or decrease camera recording rates in response to camera activity. View/record at a few IPS most of the time and let PROXIMA boost the recording quality all the way up to 25 IPS when motion is detected or the camera is alarmed. Manually boost any camera to 25 IPS while viewing important cameras and use the unit as a digital video-matrix switcher!

### True Full Screen

No Windows! View or play cameras in single or arrangements of 4, 9 or 16 cameras (arrangements definable by user). Switch between video window and full screen mode with a mouse click. Easy to use, unique mouse and joystick PTZ control is available in both window and full screen mode.

### Activity Camera Display

PROXIMA DVMS "active" live view automatically selects and displays only those cameras which are being recorded. 1, 4, 9 or 16 split is automatically applied so that all active cameras can be displayed. Full screen active live view is available.

### Pre-Motion Recording

PROXIMA DVMS automatically records four seconds of pre-motion video and audio. No special programming is required and the pre-motion/pre-alarm audio/video status does not affect any other recording modes already in effect.

### Pan, Tilt & Zoom

PTZ Control is fully integrated in CIEFFE's DVMS. PTZ-capable cameras can be controlled from the DVMS or any network connected workstation. Experience exceptionally responsive PTZ control – virtually no latency regardless of the available bandwidth! Easy, intuitive control of movement is available by dragging the mouse cursor on the video, by PTZ graphic control panel or joystick. PTZ, Focus and Iris controls are available. PTZ camera tours and presets are fully integrated and can be invoked and configured remotely or associated with events. PTZ cameras can be con-

### Alarm Inputs/Relay Outputs

Each unit has 4, 8 or 16 external inputs and each is individually programmable. 4, 8 or 16 relay outputs are built-in and available for manual or automated remote control of external devices such as lights, gates, other alarms, etc.

### Software Alarm Inputs

Each PROXIMA DVMS unit can be provided with a soft alarm interface via our ActiveX Developer's Kit. This interface allows communication with third party systems e.g. access control systems, video matrix switches etc.



trolled in full or 1, 4, 9 or 16 way split screen. Currently supported PTZ camera protocols include: Sensormatic, Ultrak, Panasonic, Pelco, Samsung, Philips, Star Micronics, Kalatel, Vicon, JVC, Alec Dragon and others.

### Virtual Zoom

PROXIMA DVMS provides a special built-in virtual digital zoom facility which is available to both FIXED and PTZ cameras. Virtual digital zoom is available for live images as well as during playback. This facility offers superior image enlargement in real time for all cameras at all times!

### Instant Replay

Activity catches your eye in a monitor? Any PROXIMA DVMS camera can be instantly replayed from the operator's screen while recording continues unaffected!

High-level software alarms can initiate PROXIMA recording of cameras in response to events generated or monitored by the third party systems.

### Loophrough

PROXIMA has 4 or 16 composite BNC loophrough video outputs – install PROXIMA before or after existing video equipment.

### Easy to Use

Intuitive Graphical User Interface, including mouse and joystick controls. PROXIMA GUI has been designed with simplicity and effectiveness in mind.

### Speed Start

A simple auto-configuration is provided to allow rapid use of the unit after installation. PROXIMA will automatically detect video format (PAL or NTSC) and the number of connected cameras, disks, PTZ camera protocols etc. Recording speeds and disk space will be equally divided for a quick start.

### VCR Controls

PROXIMA provides superior playback quality, features and performance. Play images forward or in reverse, image by image, at single speed or 2x, 4x... up to 512x from any point in recorded video. Full screen playback is available.

### Fast & Easy Image Find

PROXIMA makes retrieving any recorded image quick and easy. Find facility is surprisingly simple and effective! Get immediate access to some or all of the recorded video via scalable time-line and camera rows. Find images in seconds, via intuitive interface: click on the desired camera and the image instantly appears in a high resolution preview window – everything is online. Change the time scale to go back weeks or drill in to the second... or select specific date, time and camera to pinpoint the exact image you are looking for. Random image access has never been easier!

### Image Touch-up

Each image recorded by PROXIMA can be digitally enhanced. Tools like Gamma, Saturation, Sharpen, Blur, Contrast, Brightness, Equalize, Invert, Flip, Reverse and Mosaic are provided for image enhancement. Digital Zoom facility is also available.

### Analogue Video Export

Should you need to export video to a conventional VHS/SVHS tape, PROXIMA server and/or client can be configured to provide you with the functionality that you need. Export recorded single or live single, quad, 9 or 16 camera view.

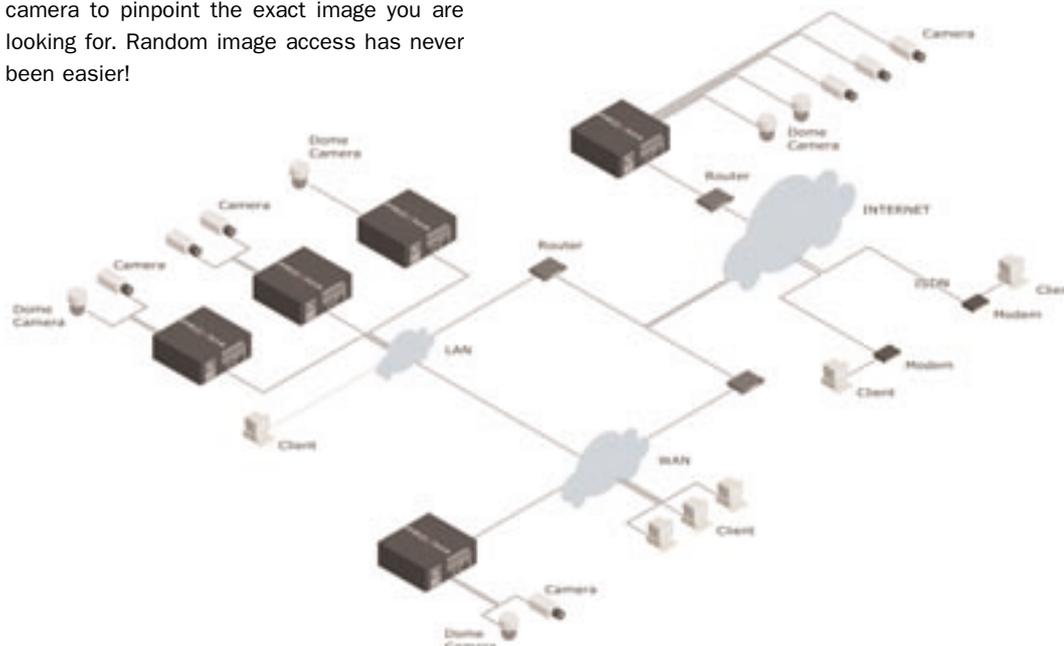
### Multiple Image Export Formats

Any image can be exported to a local or network printer. Additionally, images can be exported in your choice of Wavelet, Bitmap, or JPEG (tamper-proof) image formats to any supported media or device. Video clips can be exported as Wavelet Movies (tamper-proof) in our native Wavelet format or as standard Wavelet or MPEG4 AVI movies playable by Windows Media Player and other standard software.



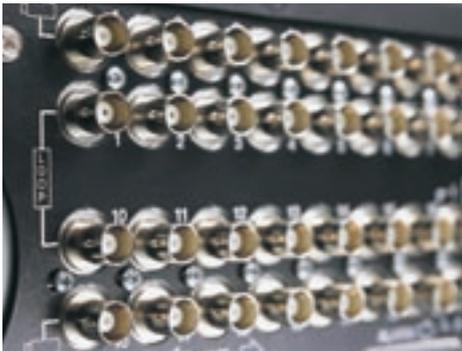
### Image Print

PROXIMA can retrieve and print any recorded image to a local or network printer. The resolution of the printed image is user selectable.



## CIEFFE Enterprise Management System

PROXIMA MANAGER enables simultaneous communication with many network-connected units. View live video or playback multiple cameras from multiple CIEFFE servers at the same time. Import BMP and WMF files as site overview/plans and navigate easily through large, multi-server sites. Use Virtual Video Desktop to display as many cameras as you can fit in your display resolution. Create custom camera layouts for optimum camera viewing – in a window or in full screen! Create logical groups of network connected resources (cameras, alarms and auxiliary outputs) and manage enterprise installations with ease from a central location. Direct and automate network connected RemoteControl clients via centrally managed scripts. PROXIMA RemoteControl single-server client is extended to multi-server environments.



### Networking

PROXIMA is exceptionally versatile and can be networked via LAN, WAN, PTSN, ISDN, xDSL, Microwave Link. Unlimited number of PROXIMA servers can be networked and accessed by one or more client PCs. Any PROXIMA can operate either stand-alone or as a server, maintaining undiminished system performance levels while having many network users connected on-line simultaneously.

### Sophisticated Password Controls

Comprehensive password control allows the administrator to individualise operator functions on a function by function, camera by camera and time of day basis, thereby providing for powerful and flexible user access management.

### Encrypted Network Communications

All PROXIMA network traffic can be encrypted for added security and protection against network sniffing.

### Time Synchronization

PROXIMA servers can utilise a single time source! Time synchronization is automatic and ensures all cameras are time stamped with the correct time. Transparent daylight savings time management – no data loss due to time changes. Synchronise PROXIMA with third-party devices such as video matrix switchers, access control systems and enjoy the benefits of a one time source security system!

### Backup

PROXIMA can backup automatically to any local or network connected compatible backup device. Backup process is automatic and does not interrupt or interfere with any other function of the system. Backup scheduling is fully configurable, providing you with the ability to choose what is backed up, in what quality and when.

### Directed Network Alarm Display

Any CIEFFE's DVMS server can send alarm video immediately to network clients running our remote software! You may direct video and audio on an alarm by alarm, client by client basis.

### RemoteView TCP/IP Client

SPECTIVA RemoteView is a simple client software that enables full live and recorded viewing, playback and PTZ control. It is also used as a wavelet movie viewer. RemoteView is compatible with all Windows 95b, Windows 98, Windows Me, Windows NT 4.0, Windows 2000 and Windows XP systems.

### Scripting

Operation of PROXIMA can be fully automated by custom scripts. CIEFFE scripting language can be used to write macros which execute automatically with no user intervention.

### CIEFFE VirtualMachine

Our general purpose serial (RS-232) interface script engine allows non TCP/IP aware devices (e.g. video matrix switches, legacy access control systems) to effortlessly communicate with multiple units across the network.

CIEFFE VirtualMachine has access to all functionality available in CIEFFE ActiveX. Exchange event information between systems, trigger recording or make a unit a transparent subsystem of a third party device.

	PROXIMA LC4 DVMS	PROXIMA LC8 DVMS	PROXIMA 8 DVMS	PROXIMA 16 DVMS
Video Inputs	4	8	8	16
Loophthrough	Yes	No	No	Yes
Switched Analog Output	No	2	2	4
Audio Inputs	1	1	1	1
Audio Outputs	1	1	1	1
Alarm Inputs	4	8	8	16
Auxiliary Outputs	8	8	8	16
Interface	VGA	VGA	VGA/SVHS/CVBS	VGA/SVHS/CVBS
Recording Speed	50/60 Ips	50/60 Ips	50/60 Ips	50/60 Ips
Standard Internal Storage	40GB	40GB	60GB	60GB
Optional Internal Storage	160GB	160GB	1.200GB	1.200GB
Compression Algorithms	Wavelet / Delta Wavelet / MPEG4			
Communications	Ethernet 10/100 Mbit / ISDN / ADSL			
Enclosure	Desktop 2U	Desktop 2U	Rack Mount 4U	Rack Mount 4U

**CIEFFE (NZ) Ltd**

Gnd Floor, 180 Molesworth Street,  
P O Box 2789  
Wellington, New Zealand  
Phone +64 (0) 4 471-2179  
NZ Freephone 0800 PROXIMA  
Fax +64 (0) 4 473-8619

**CIEFFE (Australia) Pty Ltd**

468-472 The Kingsway,  
Miranda, NSW 2228,  
P O Box 340, Gympie, NSW 2227  
Australia  
Phone +61 (0) 2 9531-2122  
Fax +61 (0) 2 9531-2126

**CIEFFE (South Africa) Ltd**

P.O. Box 304  
Florida Hills  
1716, Florida, Gauteng  
South Africa  
Phone +27 11 760 6437  
Fax +27 11 760 6434

**www.cieffe.com**  
**info@cieffe.com**



**We power Your eyes**

**CIEFFE s.r.l.**

Via Ugo Foscolo, 13  
20048 Carate Brianza  
Milano ITALY

Phone +39 0362 915018  
Fax +39 0362 990199