DEDICATED MICROS

DV-IP HD

Installation and Operation Guide

NetVu CONNECTED

DV-IP RT

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Introduction

What is the…

DV-IP HD ?

A comprehensive digital recording solution, the DV-IP HD is a stand-alone high-performance recording system offering reliable, networked, scalable CCTV with High Definition recording capabilities at an affordable price.

The DV-IP HD is the ideal companion to the DM CamVu 2000, allowing multiple megapixel video streams to be viewed and recorded simultaneously in high definition.

Ideal for installations were high record rates and network capabilities are required.The DV-IP HD offers JPEG or MPEG-4 recording at scalable quality settings and global record rates of up to 200pps at 4CIF resolution.

Dedicated Micros renowned **Multi***Mode record feature enables an operator to set different recording rates, resolution and compression formats across scheduled, normal and alarm modes for each individual camera.*

Available with 8 camera inputs, all offering telemetry control, the DV-IP HD has built in Alarm functionality and onboard Activity detection software.

To give operators maximum viewing flexibility, the DV-IP HD can be configured to contain a mixture of spot or main monitor outputs. Camera channels can be viewed in single or multi-screen mode on a local monitor or remotely over an IP connection.

The accompanying Infra-Red (IR) Remote Control has a colour coded 'Softkey' interface with configuration menus common to both local monitor and web interface, making for easy set-up and operation.

Dedicated Micros trademark plug and play intuitive set-up and user-friendly interface helps keep installation and operator training to a minimum.

The DV-IP HD includes as standard internal storage with expansion available via external high-speed SATA ports. A DVD-R Writer and USB ports are provided for external video archiving.

The unit also offers integrated text support, allowing users to connect with cash registers in retail applications to monitor Point Of Sale (POS) locations. Capturing and associating video with the relevant text information allows the operator to search video footage by time, event, and text data to provide evidence of fraud or to aid identification of regular offenders.

Among the many other features included as standard on the DV-IP HD are; multiway display, picture in picture viewing and remote monitoring using NetVu ObserVer (utilising DM's unique **Trans***Coding capabilities to provide fluent live and replay images).*

With telemetry control of up to 16 cameras (including coax telemetry), control of dome cameras, audio recording, activity detection plus many more exciting features, the DV-IP HD is the ideal product when high-performance video recording and transmission is required at an affordable cost.

For further information, please visit the website:

www.dedicatedmicros.com

or contact customer services in your region.

Features

The DV-IP HD from Dedicated Micros is equipped with an array of valuable features designed to enhance the operator experience.

- 8, camera inputs
- Up to 200pps at QCIF to 4CIF resolution
- Telemetry support (Coax & Serial)
- I.P Camera support
- Megapixel camera support
- HDMI monitor support
- Alarm Inputs & Outputs
- Two way network intercom
- Internal storage
- All DVR functions fully supported by Keyboard/IR Remote Control/Mouse
- Scalable recording settings
- **Multi***Mode* Recording - Dynamically-switchable resolution, record-rate & compression (MPEG4/JPEG) per camera
- Built in activity detection
- Single, Picture in Picture and Multiway displays
- Live and playback viewing locally and over Ethernet
- **Point&**go telemetry control
- JPEG or MPEG-4 recording and transmission
- Web pages provide easy remote configuration
- Embedded NetVu Console functionality
- Easy to use on-screen, colour coded softkey menu options
- Text support and text search features ideal for retail installations
- Built in DVD-R writer and USB ports for download of video archive to external flash memory and uploading software updates
- Optional external keyboard available
- Configuration via USB mouse and USB QWERTY keyboard
- BS8418 compliant

NetVu CONNECTED

The DV-IP HD has NetVu Connected technology built-in to ensure maximum compatibility with future developments in networked security. NetVu Connected technology enables the DV-IP HD to fully interact with other NetVu Connected compatible products from DM including the DVIP Decoder, NetVu ObserVer and PDA Viewers. Providing interoperability between the worlds leading security companies, NetVu Connected uses industry standard networking protocols supported by a wide range of third party integration products and SDKs to ensure future on-going compatibility.

COMMON CONFIGURATION INTERFACE

A Common Configuration interface is displayed when the unit's configuration screens are accessed locally at the unit or remotely via a web browser. This unified system ensures that the installer is familiar with the configuration screens irrespective of their location to the unit, minimising training and familiarisation time and increasing the speed of installation and alteration.

The DV-IP HD includes a unique colour-coded, soft key menu structure and onscreen Graphical User Interface (GUI). Context sensitive, the menu structure always represents the area of the menu the user is in, allowing them to quickly select the options and settings they need without having to trawl through menu pages and options. The colour coded buttons displayed on the monitor match those on the IR Remote Control, whilst control can also be conducted through an attached USB Mouse or supported Keyboard (KBC1 / KBC2).

VIDEO TIMELINE

The Video Timeline feature is a new intuitive interface for the control and navigation of playback video. With control via the IR Remote Control or supported Keyboard, the colour-coded on-screen display matches the buttons on the Remote Control or Keyboard allowing the user to control the video forward or backwards in incremental steps of seconds, minutes, hours, days and weeks.

MAPS

Users can now navigate around their CCTV installation using graphical maps. Selecting the relevant camera from the map will instantly connect the user to that cameras image stream. With the ability to load bespoke map images and floor plans to reflect their installations, the Maps feature is ideal for quickly identifying camera locations around a site or CCTV network.

point&go

Point&*go* provides the user with easy to use, fast, accurate telemetry control via an attached monitor. With no need for a telemetry keyboard, users are able to use Pan & Tilt control of a Dedicated Micros Oracle Dome simply by clicking an area of the monitor. The camera will instantly respond, positioning the selected area in the middle of the screen, ideal for tracking movement through a scene.

ePTZ

Dedicated Micros ePTZ uses an advanced image 'interpolation' algorithm that reveals detailed information that simple pixel-stretching digital zoom commands cannot. Users can operate ePTZ as they would Analogue Zoom - moving around the scene and zooming in / out using the IR Remote Control or a supported Keyboard - even on static analogue cameras. Electronic Zoom can be carried out on both live and playback video. Providing the ability to retrospectively control and view an image, a great aid in post-event analysis.

Absolute Positioning

Using Camera Selection Maps and the unique Absolute Positioning capability of Dedicated Micros Oracle Dome cameras, an operator can, with one mouse click, select a camera and send it to view an area of the site (Pan and tilt). Absolute Positioning is ideal for following someone from camera to camera around a site and greatly increases event response time, particularly for operators unfamiliar with a site layout and camera location.

Design of the manual

For ease of use, this manual has three parts:

1. Installation — Shows details of how to install the unit and connect external devices.
2. Configuration — Shows details of the units menus.
3. Operation — Shows quick reference details on how to control the unit.

The order and layout of these pages has been designed to help the setup process. It is recommended that the menus are edited in sequential order to enable accurate, easy and efficient

Important Safeguards

Read Instructions
All the safety and operating instructions should be read before the unit is operated.

Power Sources
This unit should be operated only from the type of power source indicated on the manufacturer's label.

Servicing
Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
Refer all servicing to qualified service personnel.

Ventilation
Ensure unit is properly ventilated to protect from overheating.
All the safety and operating instructions should be read before the unit is operated.

To prevent fire or shock hazard, do not expose this equipment to rain or moisture. The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user of this equipment that there are dangerous voltages within the enclosure which may be of sufficient magnitude to constitute a risk of electric shock.

WARNING

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Lightning Strike
The unit has some in-built protection for lightning strike, however it is recommended that isolation transformers be fitted to the system in areas where lightning is a common occurrence.

Regulatory Notes and FCC and DOC Information
(USA and Canadian Models Only)

Warning: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the US Government Printing Office, Washington, DC20402,
Stock No. 004-000-00345-4.

This reminder is provided to call the CCTV system installer's attention to Art. 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

CE Mark

If this product is marked with the CE symbol it indicates compliance with all applicable directives.

Directive 89/336/EEC.

A 'Declaration of Conformity' is held at Dedicated Micros Ltd.,

1200 Daresbury Park, Daresbury, Cheshire, WA4 4HS, UK.

Laser

The unit supports an integrated CD/DVD writer, the following are additional warnings associated with installing and operating the CD/DVD writer, please pay particular attention to this information.

- Caution - Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- To prevent exposure to laser emanations (harmful to the eyes), do not attempt to disassemble this unit.

Installing the Unit

Before you start

Check the contents of the box

Remove all items from the packaging and check the items listed below are present.

- DV-IP HD DVR
- IR Remote Control
- IR Remote Control Extender
- Mouse
- Power Leads
- DV-IP HD Software disc

If any of these items are missing, please contact Dedicated Micros Technical Support team.

Note: *Before installing the DV-IP HD carefully read all Safety Instructions and the following information on where the unit should be located.*

Available Accessories

The following accessories can also used in conjunction with the DV-IP HD.

- KBC1 Keyboard
- KBC2 Keyboard
- Managed Storage Unit - Extend storage capacity to 5TB
- Managed Continous Archiving - Mirrored RAID1 storage unit

For further information about any of the above products, please contact Dedicated Micros customer services in your region.

Choosing a location for installation

- The DV-IP HD is designed to be desk, shelf or rack mounted. Rack mounting brackets are available as an optional accessory.
- Ensure the DV-IP HD unit is properly ventilated to protect from overheating.
- Ensure there is a 3cm gap on both sides of the unit.
- Ensure the IR receiver on the front of the unit faces the operator position, and is not more than 3 metres (10 feet) from the operator. An IR Remote Control Extender is also available.
- Ensure the unit is not located anywhere it could be subject to mechanical shocks.
- The unit should be located in an area with low humidity and a minimum of dust. Avoid places like damp basements or loft spaces.
- If the unit is to be installed in a closed assembly, the maximum operating temperature must not exceed 40°C (104°F).
- Ensure there is reliable earthing of the mains outlet when fitted to supply connections (other than direct connection to the branch circuit).
- Any branch circuit supplying the unit must be rated at 15Amps.
- It is recommended that an uninterrupted power source be connected to the unit in case of power failure (to ensure continuous operation of the unit).

Electrical Connections

Please ensure the following are available and have been tested prior to the installation:

- Mains point
- Network point
- Network cable
- Active video signals i.e. at least one working camera feed
- PC with CD ROM drive and connection to the same network as the DV-IP HD unit (Recommended).

Quick Overview of DV-IP HD Record Settings CONFIRM BELOW INFO IS CORRECT

DV-IP HD units provide out of the box:

High performance recording on ALL cameras with minimal configuration.

Consistent recording duration and smooth motion video per camera regardless of the number of cameras.

Default record settings for 'Normal' variant units is MPEG4 5pps, jPEG 1pps or **Multi**Mode recording.

Default record settings for 'Medium' variant units is MPEG4 2pps, jPEG 0.5pps or **Multi**Mode recording.

Default 14 or 30 day storage capacity.

Complete Flexibility

The advanced record menu can be used to configure individual cameras to suit specific requirements e.g. Entry/Exit routes. Various storage sizes are available dependant on the number of cameras, the storage options and recording rate selected.

The picture quality can easily be increased if less than 14 days standard recording is required.

Note: *It is the Installer/Owner's responsibility to ensure that the record duration is set to the necessary requirements of the application.*

Multi*Mode* Recording

The unit supports **Multi***Mode recording which is a storage technology developed by Dedicated Micros. This offers the ability to set different recording rates, resolutions and compression formats across scheduled, normal and alarm modes for each individual camera.*

By varying the quality, bit rate and file size of the recorded images, the **Multi***Mode function can increase recording capabilities of the unit.*

Multi*Mode* offers:

Ability to set different recording resolutions.

Ability to set and switch MPEG or JPEG compression recording as required.

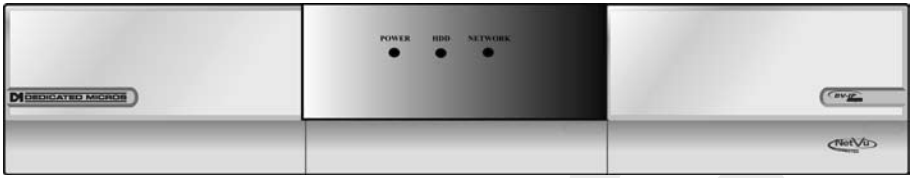
Ability to set PPS recording rate per camera.

Dynamically switchable resolution when switching from Normal to Event recording.

Dynamically switchable compression between MPEG4 and JPEG from Normal to Event recording.

Installation

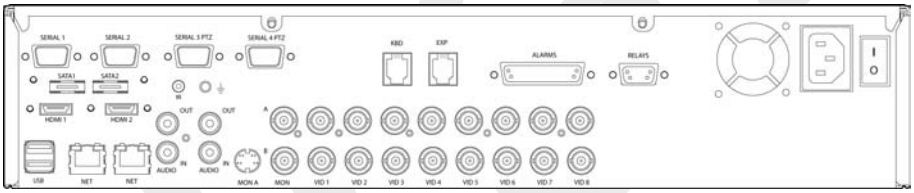
Front Panel connections



Data

DVD-R	Internal DVD-R drive (located under hinged flap)
USB	USB2.0 connector (located under hinged flap)
Socket	Can be used to connect an external IR receiver to replace the internal unit (located under flip down lid)
LED's	**Power** - The Power LED will be green to indicate power is connected to the unit **HDD** (Hard Disk Drive) - This will flash when images are being stored to the hard disk **Network** - The Network LED will be green to indicate a connection

Rear Panel connections



Video

8. way unit

VID1 to VID8	75Ω BNC composite video input, 1V pk-pk with loop through
MON A	75Ω BNC composite monitor output, 1V pk-pk
MON B	Spot Monitor output
MON A	S Video Connection
HDMI	2x High-Definition Multimedia Interface connectiors

Audio

Audio IN (Dual)	RCA (phono) socket, 8KHz/16KHz/22KHz sampling 75Ω input impedance, 1V pk-pk
Audio OUT (Dual)	RCA (phono) socket, line level <100Ω output impedance,1V pk-pk amplification required

Data

SERIAL 1	RS-232 (3 wire & 9 wire)
SERIAL 2	RS-232 (3 wire & 9 wire)
SERIAL 3 (PTZ)	RS-485 (2 wire & 4 wire)
SERIAL 4 (PTZ)	RS-485 (2 wire & 4 wire)
USB	2x USB2.0 connectors
NET	RJ45 Ethernet network connector, 10/100 Mb/s Ethernet Network
KBD	RJ12 connector for use with Dedicated Micros telemetry keyboards (KBC1, KBC2))
EXP	RJ12 expansion port for future use
SATA	2x E-Sata port available for storage expansion

Power

POWER	IEC mains power socket & switch

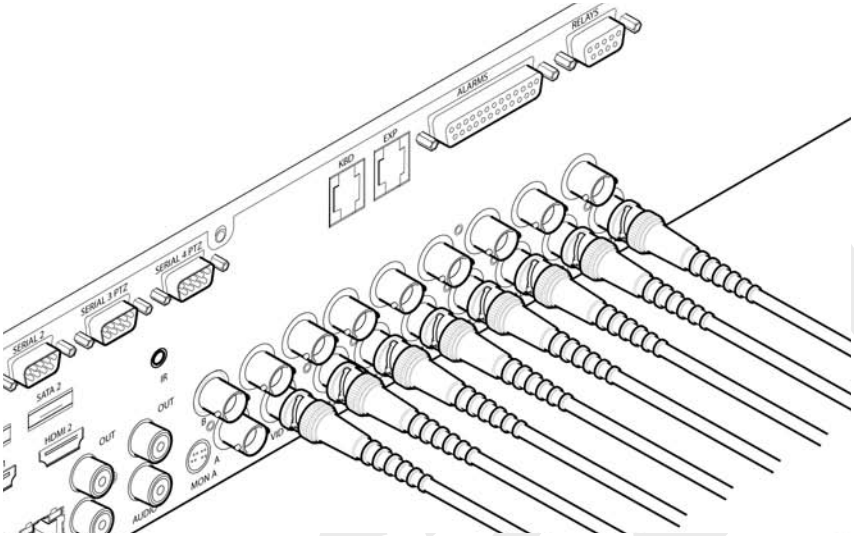
Alarms and relays

ALARMS IN	Via 25-way (female) D Type 24V 200mA 17 general alarm inputs Range of Alarm states are: i. 0 – 800R = Short circuit ii. 800R – 2K = closed contact iii. 2k – 12k = open contact iv. > 12K = open circuit
RELAYS	Via 9-way (female) D Type rated at 24V 200mA 6 onboard light duty relay output (500mA@ 12V-48V Max)

Installing the DV-IP HD

This procedure shows the sixteen camera input version.

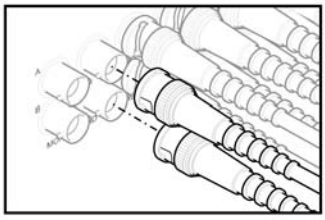
Step 1 Connecting Video



The DV-IP HD supports up to 8 connected Video Inputs via the 75Ω BNC connectors. Connect cameras to the video inputs, starting from input 1.

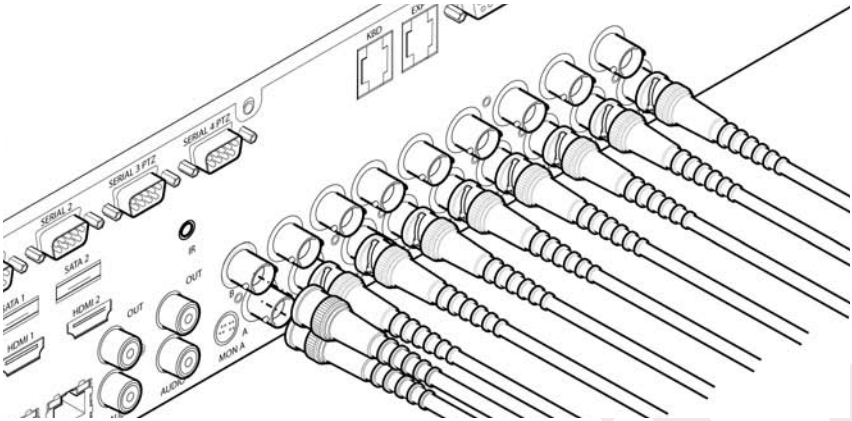
8 and 16 channel variants have two rows of connectors providing video input and loop-through support. It is possible to use either the top or bottom row of connectors; For consistency and quality of installation, DM recommend one row is used for video inputs and the other for all required loop-through connections onto other pieces of equipment e.g. monitors and matrices.

Note: *Remember the last piece of equipment in line must be terminated.*



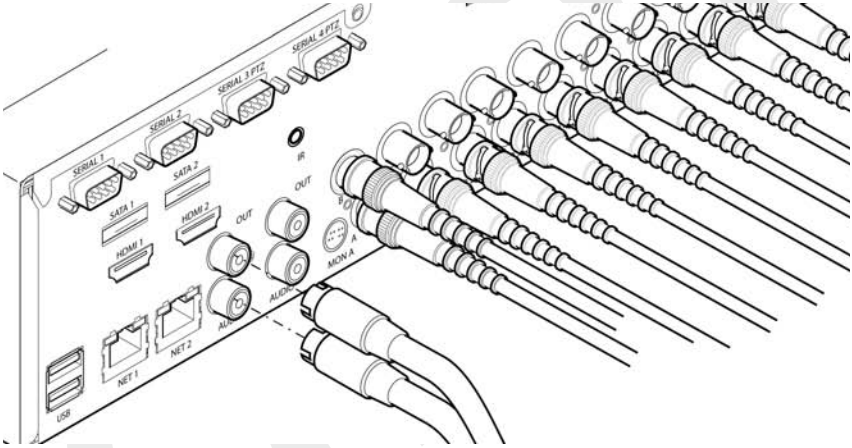
Double termination (not removing termination from the unit) will result in the 1V peak to peak video signal being crushed. This can reduce the colour rendition of the video source and may cause the video signal not to be detected by the last piece of equipment i.e. the signal is no longer 1V peak-to-peak.

Step 2 Monitor



The DV-IP HD supports a main monitor via BNC ‘A’ and a spot monitor via BNC ‘B’.

Step 3 Connecting Audio



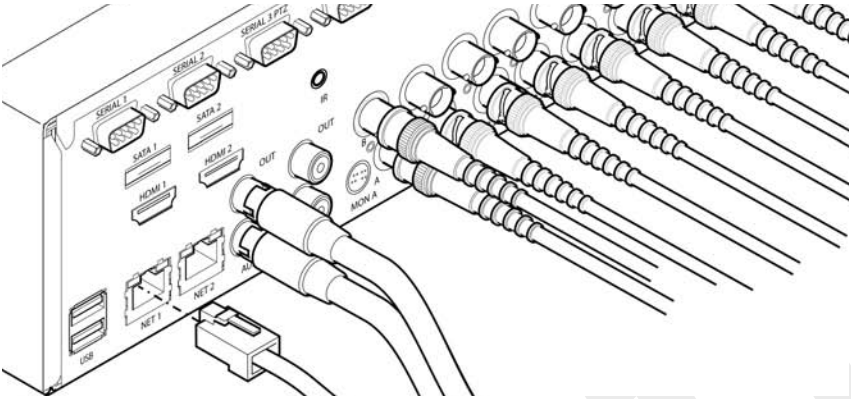
The DV-IP HD supports two channels of bi-directional audio, accessible through NetVu ObserVer. Connect the audio equipment to the phono sockets AUDIO IN and AUDIO OUT. The audio channel defaults to record camera 1.

The following modes of operation are supported:

- Challenge – intruders from a Remote Video Response Centre (RVRC)
- Listen – to local audio from a site at the RVRC
- Record - local audio from a site to accompany video
- Replay - all audio through a local Audio output (not supported when Audio out is used as a challenge/PA source)

Note: *The Audio output can be configured as a challenge output or as a replay output.*

Step 4 Connecting to the Network

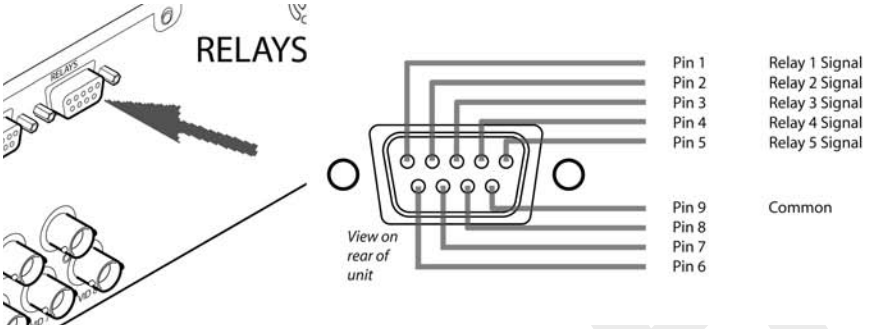


The DV-IP HD supports a 10/100Mbps auto-detecting network port. Use a CAT5 cable to connect the unit to the network.

By default the unit is configured for DHCP (where the unit is automatically allocated an IP address from the network DHCP server).

DNS (Dynamic Name Servers) is supported and therefore the unit can be assigned a name. This removes the need for the unit to have a fixed IP address and makes it easier for a remote user to locate. Refer to the 'Network' menu section for further information regarding DNS.

Step 5 Relays

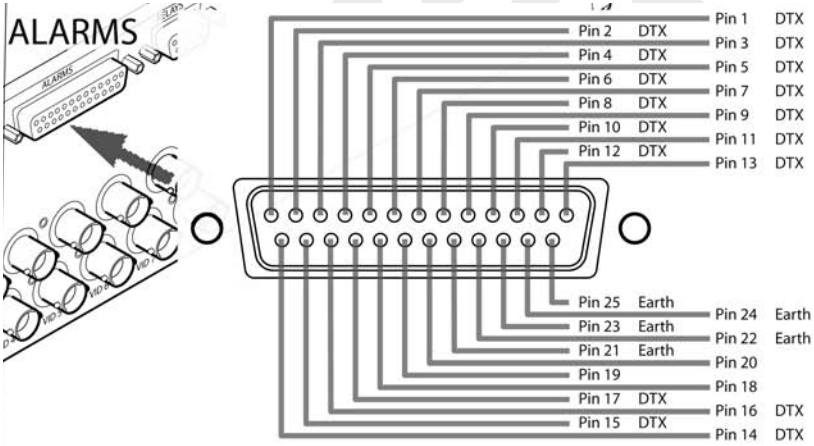


The DV-IP HD supports up to five 24V 200mA relays.

Relay Connector

Pin	Connection
1	Relay 1 signal
2	Relay 2 signal
3	Relay 3 signal
4	Relay 4 signal
5	Relay 5 signal
9	Earth

Step 6 Alarms



The DV-IP HD supports 20 normally open/closed tamper proof alarm inputs, or one Global keyswitch input with camera specific inputs configurable as entry/exit alarms. The alarms support tamper proof detection using 1k in line and 5K end of line resistance. The DV-IP HD detects short circuit, open circuit and contact closure. This functionality is part of the advanced alarms supported on NetVu Connected products and includes features required for Central Monitoring. It is compatible with the British Standard BS8418.

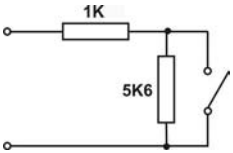
Relay Connector

Pin	Alarm Input Connection
1 - 20	1-20
21-25	Earth Common

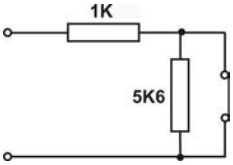
End Of Line Circuitry

The following describes the EOL tamper alarms circuitry needed when EOL has been configured. There should be two resistive values within the tamper alarm circuitry. These must be located inside the alarm device (furthest point from the unit).

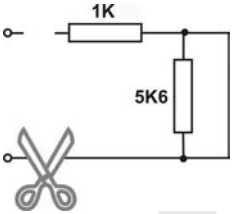
The alarm state could be Normally Open or Normally Closed, however the tamper states are the same for both settings.



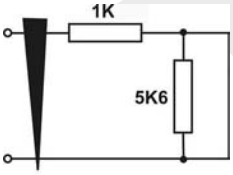
Open, the resistive value is 6.8K ohms (1K + 5.6K).



Closed, the resistive value is 1K ohms, as the circuit does not see the 5.6K ohm resistor.



Open Circuit Tamper, the resistive value is infinity as the circuit has been cut and therefore is 'open'.



Short Circuit Tamper, the resistive value is 0 ohms.

Step 7 Connecting Serial Ports
Serial ports have two main uses:

1. Connecting twisted pair telemetry for PTZ cameras.
2. Providing text data recorded with the video e.g. Point of Sale.

Note: *Telemetry cameras should be connected to Serial 3 and 4. Text data can be retrieved from any serial port.*

RS232

RS-232	Serial 1 & 2 Pin Allocation	Serial 3 & 4 Pin Allocation
Data Carrier Detect (DCD)	1	-
Receive Data (RX)	2	2
Transmit Data (TX)	3	3
Data Terminal Ready (DTR)	4	-
Ground (GND)	5	5
Data Set Ready (DSR)	6	-
Ready To Send (RTS)	7	7
Clear To Send (CTS)	8	8
Ring Indicate (RI)	9	-

RS485

RS-485	Serial 3 & 4 Pin Allocation
Transmit Data (TX+)	1
Transmit Data (TX-)	9
Ground (GND)	5

Step 8 Connecting a Keyboard
The DV-IP HD supports Dedicated Micro keyboards DM/KBC1 and DM/KBC2. Connect any of these keyboards via the KBD connector situated on the rear of the unit.

Note: *Refer to 'Unit Operation' for further guidance regarding supported keyboards.*

Step 9 Connecting Telemetry Cameras

Simple Dome Connection

Pin connections for RS485 connection to a dome on serial port 3/4 are:

Dome Cable	DV-IP HD Serial Connector
Yellow	1 TX+
Green	9 TX-

If the dome is being connected using an RS485 connection, the dome address should be set to match the camera input number on the DV-IP HD i.e. if the dome is connected to video input 3, the camera address should be '03'.

Dennard 2040 & 2060 Domes

A Dennard 2040/2060 Dome can be connected via either co-axial telemetry or RS485 twisted pair.

If using co-axial telemetry the address switches should be set as:

Blue switch - F	Yellow switch - D

DM Oracle Domes

A DM Oracle dome can be connected via either co-axial telemetry or RS485 twisted pair. Oracle Domes are configured using the specific pages available in the unit software, refer to 'Oracle Dome Configuration' for more information.

The DM Oracle Dome has three address switches, *refer to the Oracle Dome documentation for more information on hardware confguration*.

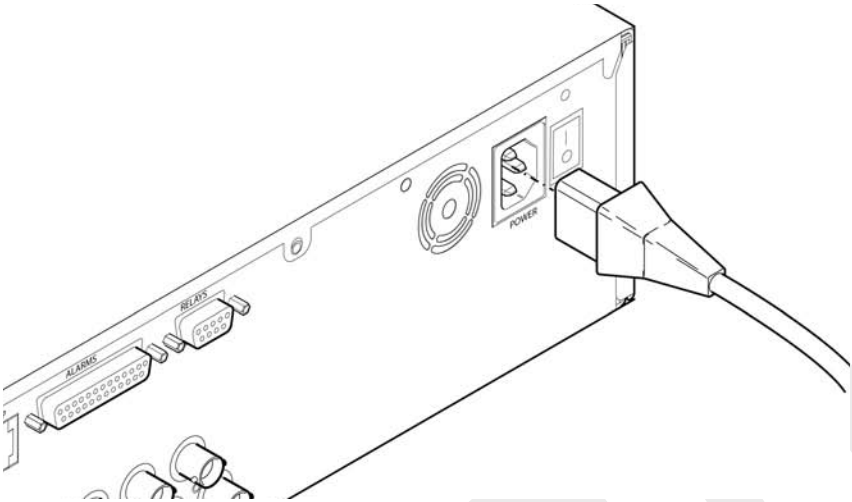
UTC

Red - 1
Blue - N/R
Yellow - N/R

Serial

Red - 2
Blue - Camera Number
Yellow - Camera Number

Step 10 Connecting Power



The DV-IP HD has an internal power supply unit. Connect the mains lead to the unit and then to the wall socket, or to a fused spur connection. Check local regulations before installation. Some countries require an Alarm/Security device be connected to a fused spur and not a wall outlet socket.

Advanced Installation

Connecting Storage devices

Images are recorded to the internal hard disk for instant playback and searching by the operator. The capacity of the internal disk effects the amount of images and time period that can be recorded.

The internal hard disk is a temporary storage device as images are overwritten after a set period.

If images need to be held for a longer time period, external storage is required. The SATA ports on the rear of the unit are used to connect to external storage devices. The unit can support multiple external hard disks. To maintain an effective SATA link, the length of all cabling from the unit to the connected device should not exceed two metres.

The unit's operating system will continue to utilise the internal hard disks if the external hard drive encounters a problem.

Dedicated Micros Managed Storage Expansion units
A DM Managed Storage Expansion unit is connected via the SATA port. A Managed Storage unit provides high capacity, environmentally managed storage in a single box. Disk temperature is maintained at a constant level and the disk management system ensures only disks in operation are spun. Both of these features help extend drive life.
For further information regarding the DM Managed Storage Expansion unit, please contact Dedicated Micros technical support team.

Configuring the Unit

The unit can be configured either on the local monitor or over the network using a PC with Internet Explorer or a similar browser. Both interfaces are the same.

Accessing the menus on a local monitor

1. The Configuration pages can be displayed on the local monitor by pressing the MENU button on the IR Remote Control.

Note: *If the IR Remote Control does not open the menu, press the DVR button to make sure it is in DVR mode, then press the MENU button again.*

Accessing the menus on a PC web browser

Locating the Unit IP address

The IP address of the unit is required to access the web pages. It can be identified from the local menu pages; using the local monitor, press the MENU button on the IR Remote Control and navigate to the System menu to find the DHCP assigned IP address.

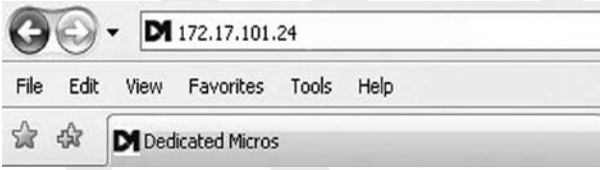
If DNS (Domain Name Server) is not to be used, it is important to set a fixed IP address so that the same URL can be entered to contact the unit every time.

If a permanent IP address is not assigned to the unit, it will attempt to contact the DHCP server every time it starts up. If for any reason, a DHCP server cannot allocate an IP address to the unit, a default IP address will be used. It is recommended that DNS be used as assigning a name will make it easier for a remote user to locate the unit. DNS data can be configured via the Network menu.

Accessing the Configuration Web Pages

The unit can be configured using the on-board web pages. To access these:

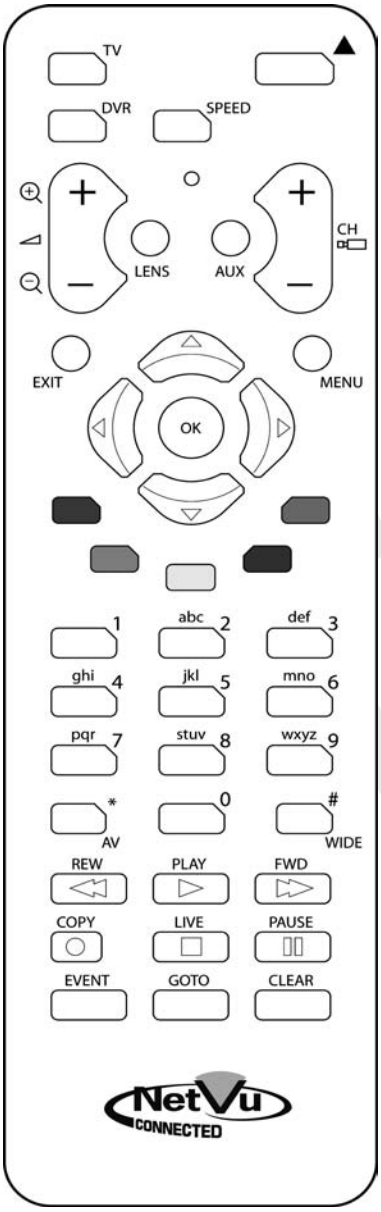
1. Launch Internet Explorer (or other web browser package).
2. Type the URL for the unit (IP address or domain and unit name).

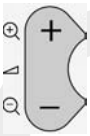
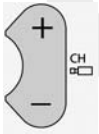


3. The System Settings menu page will be displayed.

Remote Control

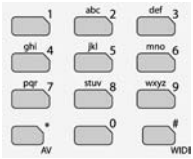
The IR Remote Control offers all the control functionality required to navigate the menus.



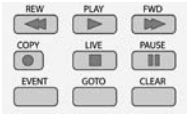
Key	Button
	Switches the Remote Control to 'TV' mode and sends codes understood by common TV sets.
	Switches the Remote Control to 'DVR' mode. Note the DVR mode is the default mode of operation.
	Toggle the speed of PTZ camera movement (two speeds available).
	Use the Zoom button to zoom in/out with a selected camera. Also used to zoom (x2) into Live or Playback images.
	This button will change the Zoom Keys operation to focus or iris functions (when available).
	Use this button to cycle through available cameras.
	This button should be pressed to carry out auxiliary actions on a PTZ camera.
	Press the Menu button to enter the Configuration menus.
	Press the Exit button to exit the Configuration menus.

Use the Directional and OK buttons to navigate through the menu screens and accept changes. Also use for PTZ telemetry control of cameras.

Use the Softkeys (Red, Green, Yellow, Purple) to directly access the corresponding function displayed on the menu screen.



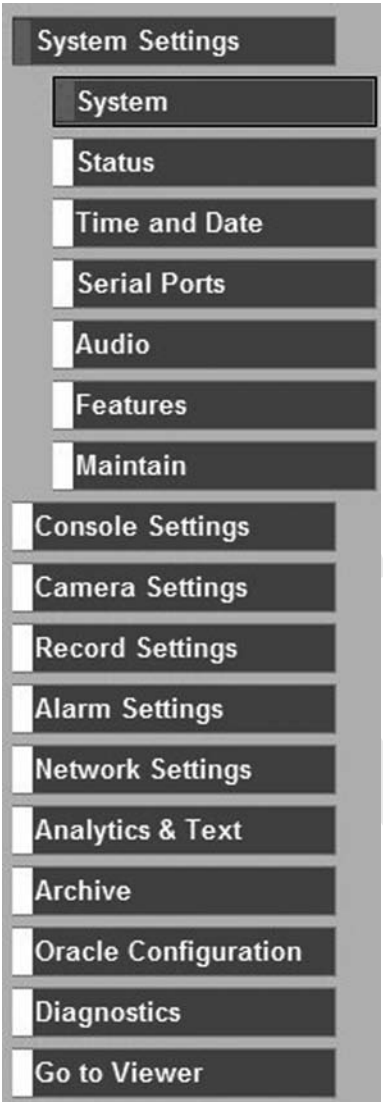
The Number pad should be used to select specific cameras and preset positions when available.



Use the Playback buttons to interrogate recorded images. Use the LIVE button to switch from Playback or menus to a LIVE display.

Navigating The Menus

When accessing the configuration menus, the menu tree will be displayed.



The configuration pages are navigated using the menu tree (displayed on the left of each page). Selecting one of the menu options will display the relevant page. Any associated submenus will also then be available.

Relevant menus can also be accessed directly from other menu screens via the coloured softkey options shown at the base of each menu. The options available will depend on the menu being viewed. Select a softkey option by pressing either the corresponding button on the IR Remote Control (if viewing the menus locally), or by selecting the relevant option via the PC mouse (if viewing the web pages).

Note: *Any changes made via the web pages are automatically saved when the page is closed. To 'manually' save changes, select the Save option.*

Using the IR Remote Control

Press the MENU button to access configuration menus via a connected local monitor. The menu will have a red indicator highlighting the first option. Select a main menu heading to open a drop down list of further sub-options. Press the Down Directional button to highlight the next menu option, press OK to open the highlighted menu.

Press the Right Directional button to highlight the first editable parameter on the screen.

Use the Left/Right/Up/Down Directional buttons to move between fields.

Select OK to start editing a field (the option will be outlined in green).

Use the Up/Down Directional buttons to change the settings within an editable field.

Numeric fields can be edited with the Directional buttons. Use the Up/Down Directional buttons to increase/decrease by an increment of 1, use the Left/Right Directional buttons to increase/decrease by an increment of 10.

Use the OK button to accept a new setting. Use the coloured softkeys to select the accompanying colour option on screen i.e. red key to select the red option. To undo changes made to any menu, select the Refresh (Purple) option.

Virtual Keyboard

If numeric or text data requires entry, an on-screen virtual keyboard will be displayed. Use the Directional buttons to move between characters. Use the OK button to select a character. To enter details and exit the Virtual Keyboard, select the OK option. Select Submit to enter details and return to the Virtual Keyboard. Press Cancel to exit the Virtual Keyboard without entering any text.

Using a USB Mouse or the Web pages

Navigate the menus by clicking the tabs displayed on the left of the menu headings (on the menu tree). The first option is highlighted with a red tab. Select a main menu heading to open a drop down list of further sub-options.

Highlight an editable field by clicking on it directly. Use the drop down menus to change settings or enter text/numeric data directly using a PC keyboard.

Note: *A selected item in the drop down list will appear highlighted.*

Navigating away from a page (clicking on a different option on the menu tree) will automatically save any changed settings. To undo changes made to any menu, select the Refresh (Purple) option.

System Settings

The menus under the System Settings heading allow the units core settings to be viewed, changed and the system software upgraded.

The System option displays details about the unit including the IP address, unit serial number, MAC address and software version.

The Unit Status page displays information about the units operating condition, shows how long the unit has been operating and the reason for the last reset. It also shows camera status and displays any failed cameras.

The Alarm Status page shows which contacts are open, which zones are in alarm and which relays are operating.

The Time and Date page allows the unit time and date settings to be adjusted, including setting the timezone.

The Serial Ports page allows each of the four serial ports to be individually configured for one of a range of operations, including EPOS, debug, PPP and telemetry.

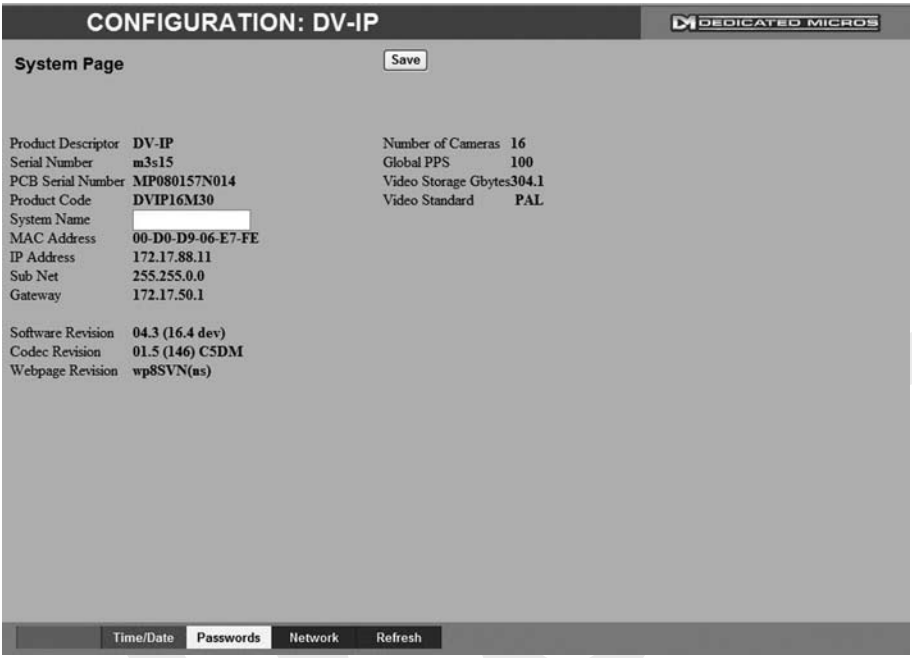
The Audio page shows the settings available for each of the two audio channels and allows configuration of audio quality.

The Features page allows control of the different features that are available within the software including Email reporting, webcam support and control of the display resolution.

The Maintain page allows the current configuration to be saved, and for previously saved settings to be loaded. It also enables easy upgrade of the system software.

System

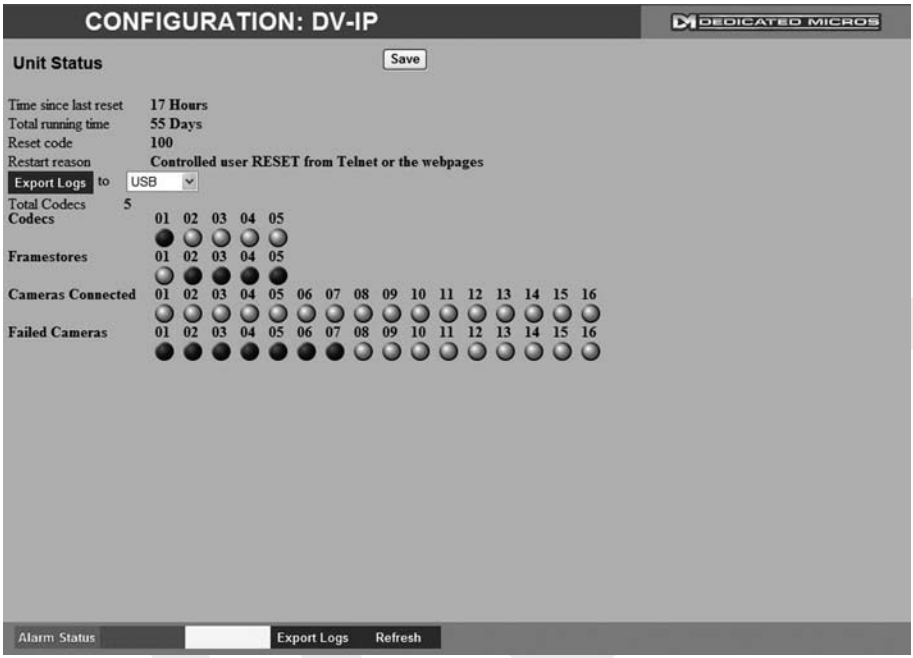
This menu shows the general information about the unit including the version of software installed, the unit's serial number and the allocated DHCP IP address.



Product Descriptor	Details the product model.
Machine Serial Number	Identifies the serial number of the specific unit.
PCB Serial Number	Displays the PCB serial number of the unit (Printed Circuit Board).
Product Code	Displays a code identifying the unit's specification.
Video Standard	Displays the video standard adopted by the unit i.e. PAL, NTSC.
Number of Cameras	Shows the number of camera channels on the unit.
Global PPS	Details the Global PPS (Pictures Per Second) recording rate for all cameras.
Video Storage Gbytes	Highlights the available video storage capacity in Gigabytes.
System Name	This field can be edited to allocate a name to the unit. This is displayed when the unit is accessed via NetVu ObserVer and is sent when transmitting information to a Remote Video Response Centres (RVRC). It would also be used if accessing the unit via a Domain Name Server (DNS).
MAC Address	This is the MAC address assigned to the unit.
IP Address	This is the IP address allocated to the unit.
Sub Net	This is the subnet of the network where the unit is located.
Gateway	This is the IP address of the default gateway (router) assigned by the DHCP server.
Software Revision	This identifies the version of software the unit is running.
Codec Revision	This identifies the codec version the unit is running.
Webpage Revision	This identifies the version of web pages the unit is running.

Unit Status

This menu details information regarding the status of the unit, notably the total time the unit has been operating and the time since its last reset. Status log information can also be exported via the 'Export Log' option to either a CD/DVD or a USB device.



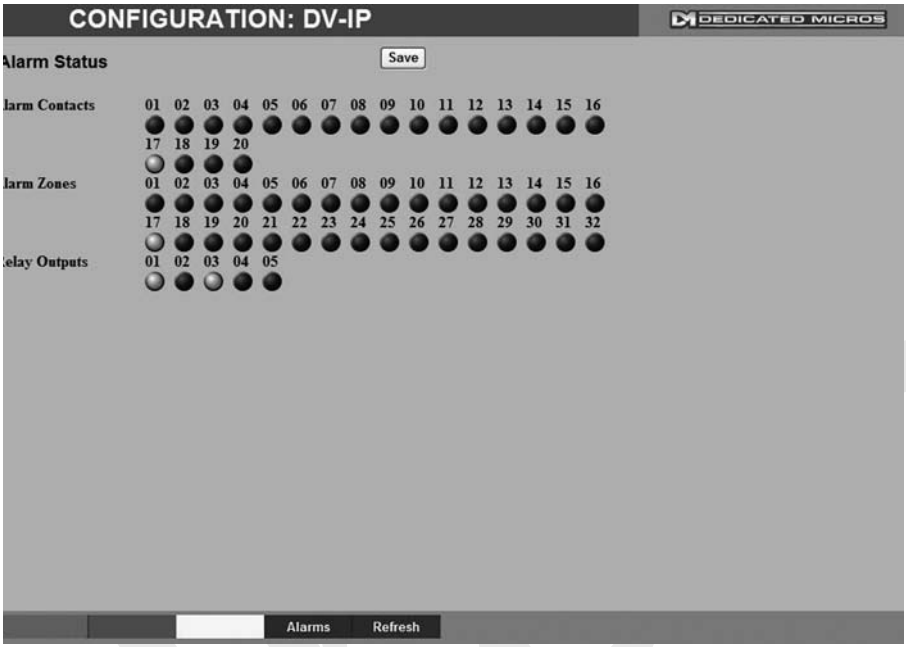
Time since last reset	Details the time since the unit was last reset.
Total running time	Details the total time the unit has been operational.
Reset code	The last reset code used is displayed.
Restart reason	The reason for the last restart is displayed i.e. Controlled User Reset.
Export Log (Blue)	Select this option to export log data to an inserted CD/DVD or a connected USB device.
Total Codecs	Details the current number of installed codecs.
Codecs	Installed codecs currently operating as a codec will be highlighted light green. Hover the cursor over individual buttons to display either 'On' or 'Off'. 'On' signifies that the codec is active as a codec. 'Off' signifies that it is active as a framestore.
Framestores	Installed codecs currently operating as a framestore will be highlighted light green. Hover the cursor over individual buttons to display either 'On' or 'Off'. 'On' signifies that the codec is active as a framestore. 'Off' signifies that it is active as a codec.

Note: *Any codec can be set to operate as a framestore.*

Cameras Connected	Those camera channels with cameras connected will be highlighted light green. Those not in use will appear dark green.
Failed Cameras	Those camera channels where the connection is deemed to have failed will be highlighted light green. Those working correctly will appear dark green.

Alarm Status

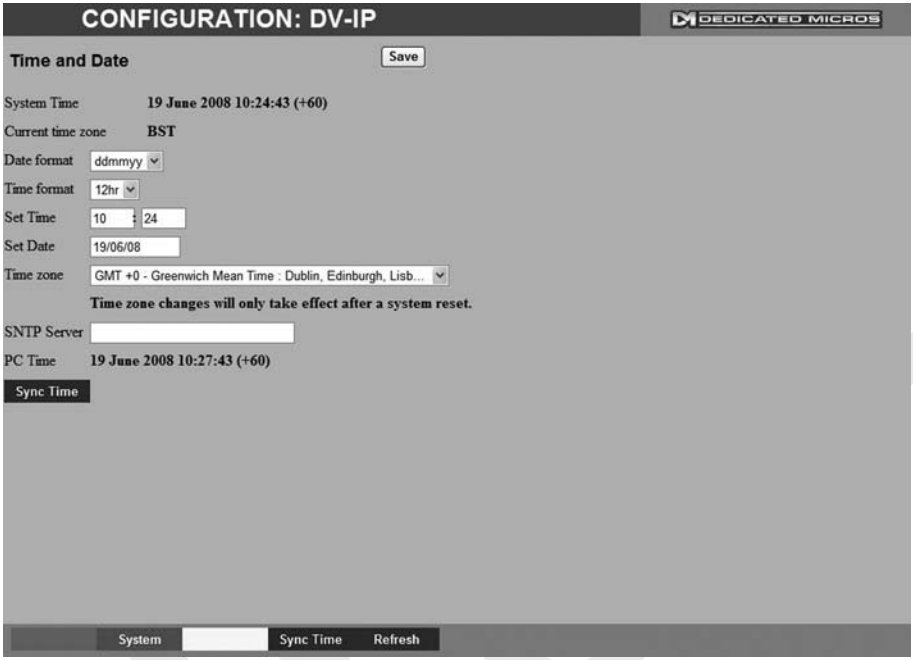
This menu details information regarding the status of the units alarm contacts, alarm zones and relay outputs.



Alarm Contacts/Zones/Relay Outputs — Alarm Contacts, Alarm Zones and Relay Outputs which are in an 'active' state are shown light green. 'In-active' ones are shown as dark green (not illuimnated).

Time and Date

This menu allows the time and date to be set on the unit. Required timezone information can also be established and the unit time synchronised to that of the PC being used to view the web pages.

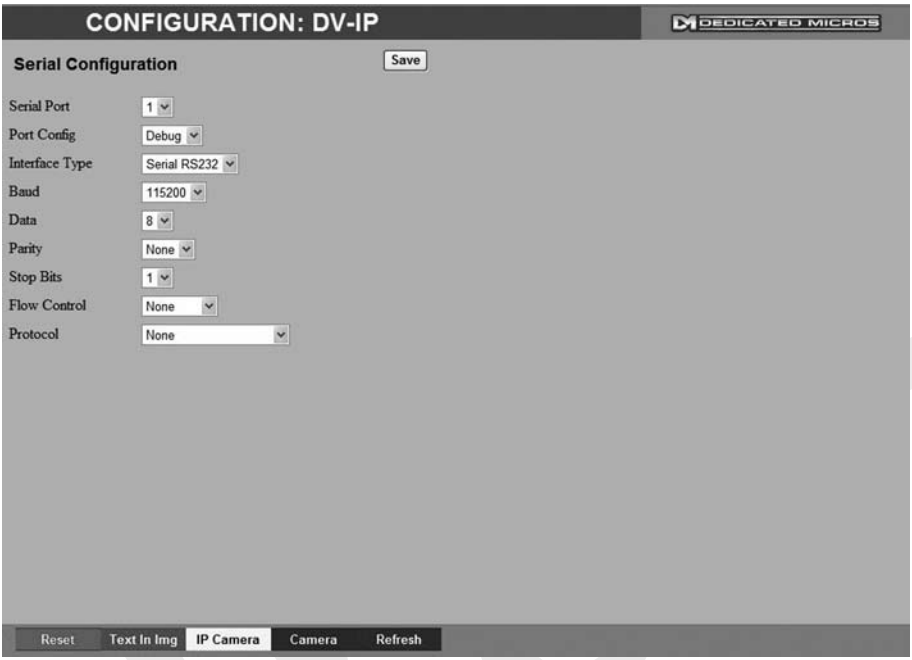


System Time	The current system time and date is displayed.
Current Time Zone	Displays the currently selected time zone settings.
Date Format	As default, the date is entered dd/mm/yy. It can also be displayed as mm/dd/yy or yy/mm/dd.
Time Format	As default, the time displayed is in 12 hour format. This can be changed to 24 hour if required.
Set Time	Enter a current time for the unit.
Set Date	Enter a current date for the unit.
Time Zone	Select the relevant timezone offset from the accompanying drop down menu.
SNTP Server	A Simple Network Time Protocol (SNTP) server allows external devices to connect and set their current date and time settings to that of the SNTP. If required, enter the SNTP server IP address here.
PC Time	Displays the system time of the PC currently being used to view the web pages.
Sync Time (Blue)	Use this button to synchronise the time of the unit to that of the PC being used to view the web pages.

Note: *The PC Time and Sync Time options will only be available if viewing the menu via the web pages.*

Serial Ports

This menu allows configuration of the units Serial ports. Refer to 'Installing the DV-IP HD' for installation information.



Serial Port	These are the four serial ports available.
Port Config	The serial ports can be configured to specific uses. Select from:

None	Switches port off
Debug	Sets port for serial communications
PPP	Sets port for Point to Point Protocol
Telem	Sets port for Telemetry purposes
Comm	Sets port for Comms purposes
GP	Sets port for General Purpose use
EPOS	Sets the serial port for connection to an EPOS (Electronic Point Of Sale) device

Interface Type	Choose the type of serial interface being used. Select from RS232, RS485 or RS422.
Baud/Parity/Data/Stop/Flow Control	These options allow the Serial port communication settings to be configured.

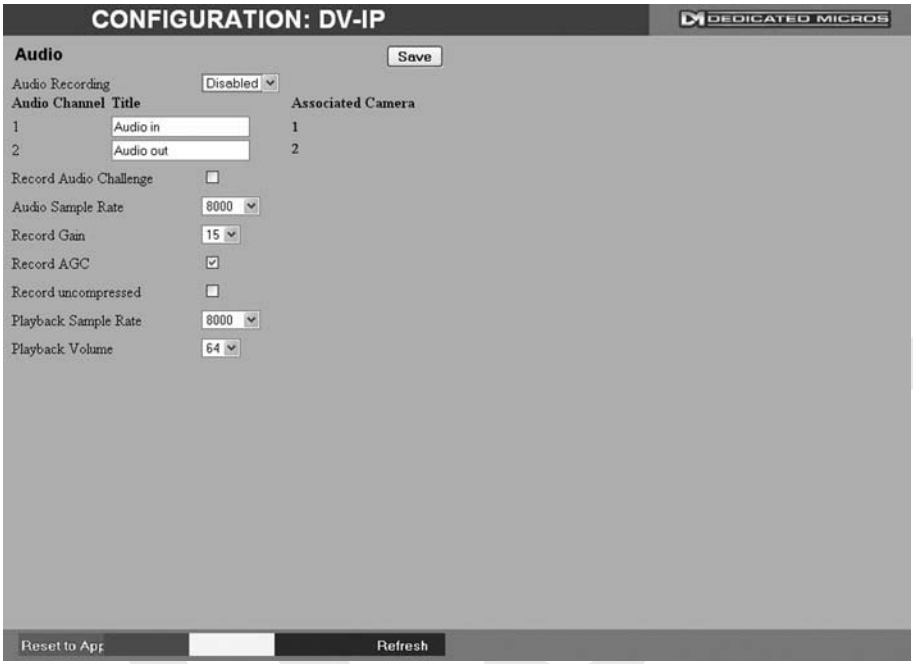
Note: *When a telemetry protocol is selected, these settings will default to pre-determined values and should not normally be altered.*

Protocol	This is a drop down list of serial telemetry protocols supported by the unit.

Note: *Refer to 'Appendix C' for a full list of supported telemetry protocols.*

Audio

The Audio menu allows settings for the two audio channels to be edited, refer to 'Installing the DV-IP HD' for audio hardware installation information.



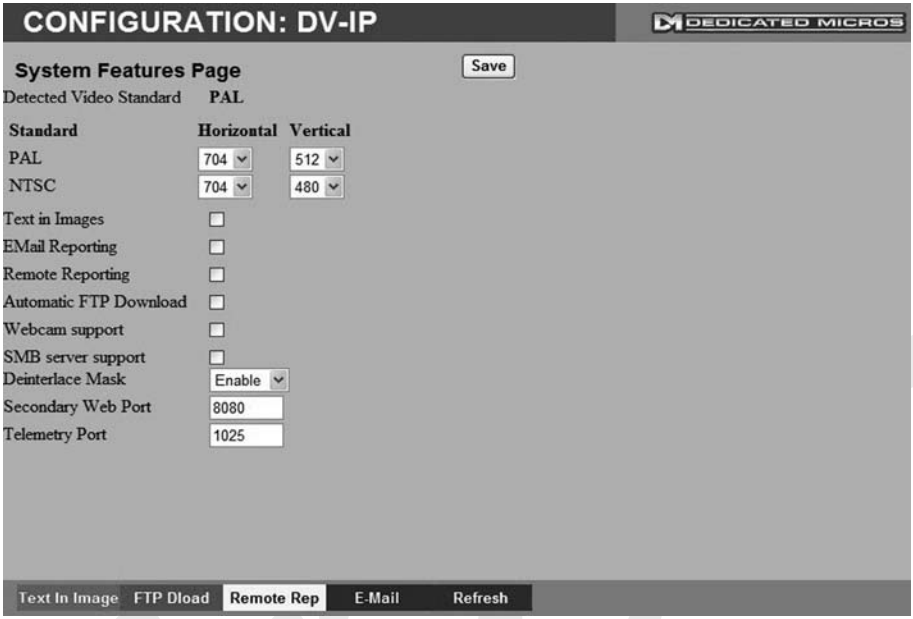
Audio Recording	This option allows the audio recording to be activated (Enabled) or deactivated (Disabled)
Audio Channel Title	Title given to each audio channel.
Associated Camera	Camera input associated with each audio channel.
Record Audio Challenge	Select this option to record an audio challenge originating from an operator at an RVRC.
Audio Sample Rate	Audio can be recorded at 8Hz, 11Hz, 16Hz or 22Hz.
Record Gain	This option allows the Record Gain level to be set. This is the base setting from which the AGC (Automatic Gain Control) will operate.
Record AGC	Select this option to activate the AGC function. AGC helps produce a better quality recording by removing background noise/ distortion.
Record uncompressed	Select this option to record audio in an uncompressed format.

Note: *Recording in uncompressed format will significantly increase the disk space used.*

Playback Sample Rate	Audio can be played back at 8Hz, 11Hz, 16Hz or 22Hz.
Playback Volume	Select a volume setting between 1 to 64 for audio playback.

Features

This menu enables the activation of system features such as Email Reporting and Automatic FTP Downloads.



Detected Video Standard	The unit automatically detects the video standard being used i.e. PAL/NTSC.
Horizontal/Vertical	Edit the resolution settings. This will be the fundamental resolution for the unit.
Text in Images	Select this option to activate the Text in Images function, *refer to 'Analytics & Text-Text In Image' for more information*.

Note: *When de-selected here, the 'Text in Image' menu will no longer be displayed in the menu tree.*

Email Reporting	Select this option to activate the Email Reporting function, *refer to 'Network Settings-E-mail' for more information*.

Note: *When de-selected here, the 'Email Reporting' menu will no longer be displayed in the menu tree.*

Remote Reporting	Select this option to activate the Remote Reporting function, r*efer to 'Network Settings-Remote Reporting' for more information.*

Note: *When de-selected here, the 'Remote Reporting' menu will no longer be displayed in the menu tree.*

Automatic FTP Download	Select this option to enable automatic FTP downloads to upgrade the unit and/or the web pages, *refer to 'Network Settings-FTP Download' for more information*.

Note: *When de-selected here, the 'Automatic FTP Download' menu will no longer be displayed in the menu tree.*

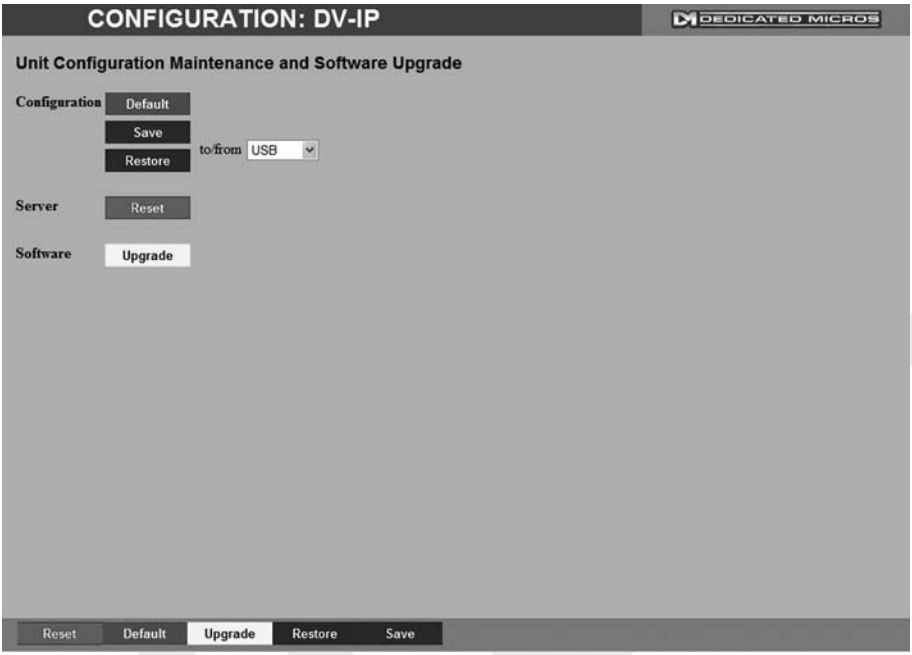
Webcam Support	Select this option to activate the Webcam function. This allows the unit to emulate a webcam and send image from one video feed in webcam format, *refer to 'Network Settings-Web Cam' for more information*.

Note: *When de-selected here, the 'Web Cam' menu will no longer be displayed in the menu tree.*

SMB Workgroup	Enter the SMB (Samba) Workgroup for file sharing purposes.
Deinterlacemask	Select this option to improve display clarity and minimise the comb effect that may be visible when recording high motion scenes in 4CIF mode.
Secondary Web Port	If the default port setting for web serving has already been allocated, it is possible to configure a second port number i.e. the secondary web port can be set to 8000 if the default web port (80) is blocked by the network or firewall.
Unicode Support	Select to activate the Unicode function supported by the unit. Unicode is a specification which allows text in any language to be displayed in a consistent and correct manner.
Telemetry Port	If 'User Defined' as been selected in the Telem UDP Port Selection option, enter the telemetry port data here.

Maintain

This menu allows the unit to be reset and a software upgrade to be performed via an inserted CD/DVD or a connected USB device. Current unit settings can also be saved for future use and previously saved settings restored.



Configuration

Default (Green)	Select to return the unit to its factory default settings.
Save (Purple)	Select to save current unit settings to the selected media.
Restore (Blue)	Select to restore previously saved settings from the selected media.

Note: *Selecting the Restore button will cause the system to reboot.*

To/From	Select the relevant media device to save to or restore from i.e. USB or CD/DVD.

Server

Reset (Red)	Select to cycle the power to the unit.

Software

Software Upgrade (Yellow)	Select to perform a software upgrade. The unit will search any connected media device for relevant data.

The unit has an in-built NetVu Console facility. This enables connection to a maximum of 20 systems. Each system can consist of up to 99 cameras originating from up to 8 NetVu Connected DVRs/Servers over the network. Selected camera feeds can be viewed and controlled via the Viewer menus. Refer to the individual menus for more information.

The System Config page dictates which cameras and systems the DV-IP HD will connect to, and controls how the video feeds will be displayed.

The System Overview page gives an overview of all connected cameras and their home servers across all systems.

The Viewer Defaults page allows the Viewer menu settings to be configured.

The Display page controls how the local monitors present information. They control whether text will be displayed on the Main or Spot monitors, the colour of that text, and how long cameras being displayed in sequence will be shown on screen.

The Map Config page allows images to be imported and used as maps displayed in the Viewer menus. Hot spots can be added to allow quick navigation to individual cameras.

The Map Data page allows Map Config information to be saved for future use. Previously saved data can also be uploaded.

The User Accounts page helps protect configuration procedures by limiting access to specific users via accounts and passwords.

System Config

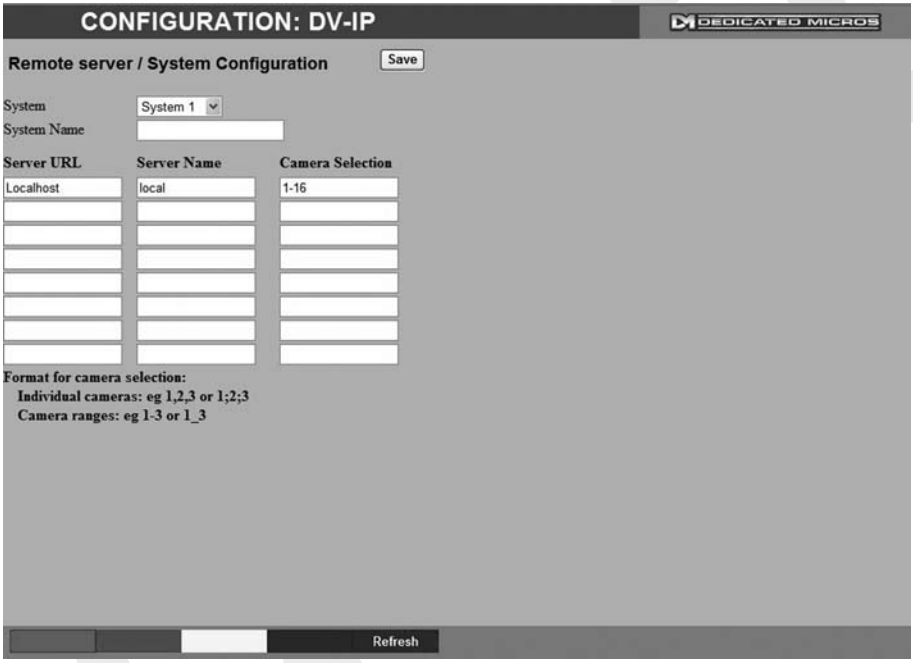
The unit can be configured with up to 20 systems. A system is a collection of DVRs and cameras selected from that DVR. Systems are not formally connected networks but a collection of DVRs viewable over an IP network. Each system provides access and control of up to 99 cameras at any one time.

Each individual system can be selected from a drop down menu which displays the server list, DVRs and IP cameras.

Camera numbering is sequential within that system (up to the maximum 99 cameras per system).

Note: For local camera feeds to function correctly, ensure the first server option for System 1 is configured to display the local cameras as shown below:

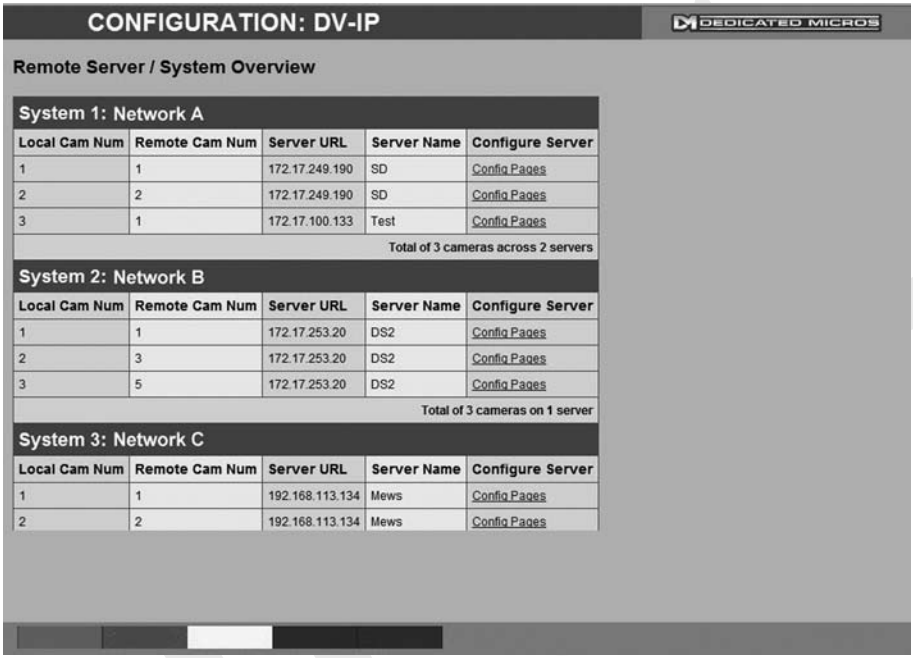
Server URL	Server Name	Camera Selection
localhost	local	1-4, 1-8 or 1-16



System	Select from 20 available systems using the drop down menu.
System Name	If required, enter a recognisable name for the system e.g. 'North Car Park cameras' (this name is held on the DV-IP HD and represents the system).
Server URL	Enter the IP addresses of the servers providing the video signals.
Server Name	Enter a name for the accompanying requested server (this name is held on the unit and represents this server).
Camera Selection	Select the cameras to be accessed. To select individual cameras, use the format 1,3,5 or 1:3:5 etc. To select a range of cameras, use the format 1-3 or 1_3 etc. All connected, non-covert cameras within the range will be added in numerical connection order.

Systems Overview

This menu gives an overview of all connected cameras and their home servers across all systems. The numbers allocated to each camera, both 'locally' within each System, and 'remotely' by their servers are displayed. The Configuration pages for each connected server can also be accessed (if access rights permit).

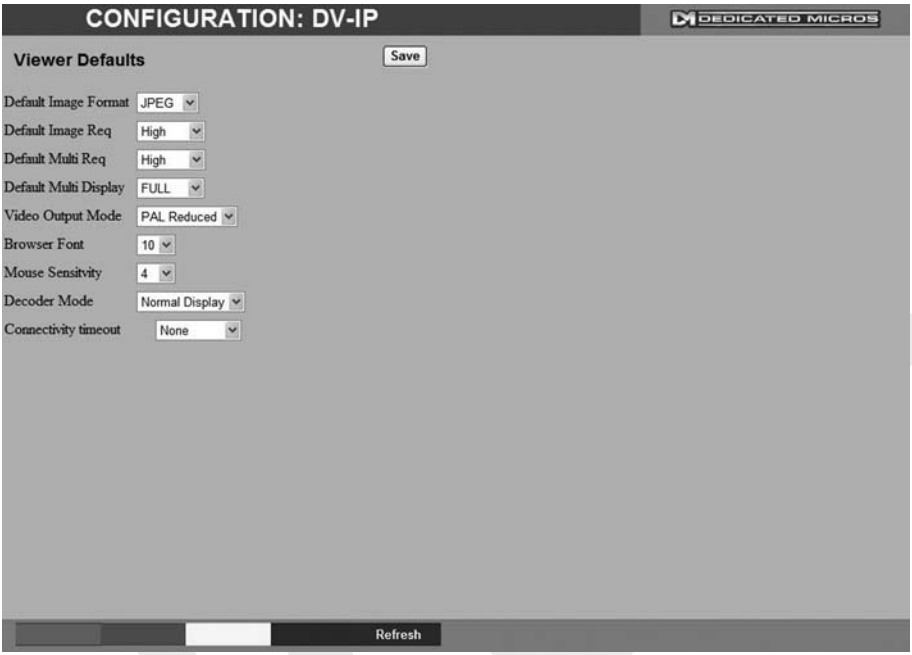


Local Cam Num	Identifies the number the camera is allocated in each system i.e. to access Camera 1 in System 1, first select System 1 via the System Selection map, then select Camera 1.
Remote Cam Num	Identifies the number the camera is allocated on its server. Selecting this number via the Viewer menus ***will not*** result in images from that camera being displayed.
Server URL	Identifies the URL address of the server the camera is located on.
Server Name	Identifies the name assigned to the server the camera is located on.
Configure Server	Select the Config Pages option to access the configuration pages for the selected Server.

Note: *Passwords maybe required to successfully access server configuration pages.*

Viewer Defaults

The User interface has a built in viewer allowing remote users to simulate local operation over a network. This menu allows configuration of settings for the Viewer function. Refer to 'Operating The Viewer' for more information regarding the Viewer function.



Default Image Format	Images requested from the connected DVRs and/or NetVu Servers can be displayed in either JPEG or MPEG format.
Default Image Req	Images displayed full screen in the Viewer menus can be shown in either High Medium or Low resolution.
Default Multi Req	Images displayed in multi screen in the Viewer menus can be displayed in either High Medium or Low resolution.

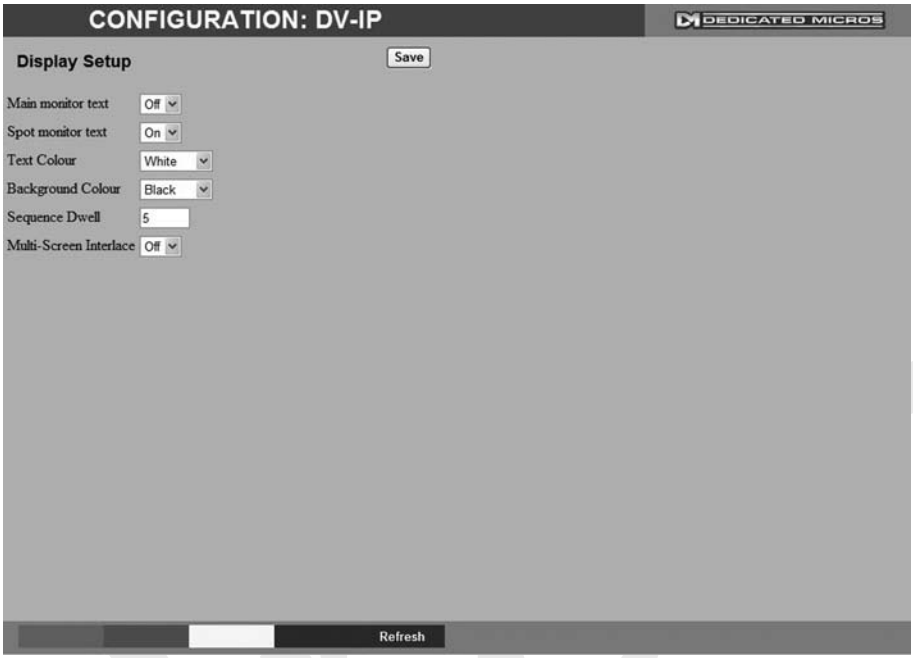
Note: *These configurations can be changed on a NetVu Server or DVR.*

Default Multi Display	This controls how the connected cameras will display in split screen mode Select from: Full Quad 6 way (6 cameras displayed per monitor) 7 way (7 cameras displayed per monitor) 9 way (9 cameras displayed per monitor) 10 way (10 cameras displayed per monitor) 13 way (13 cameras displayed per monitor) 16 way (16 cameras displayed per monitor) PinP (Picture in Picture)
Video Output mode	This option will eliminate the cut-off present on some monitors, enabling the whole of the captured image to be displayed. Select from: PAL Default, PAL Reduced, NTSC Default and NTSC Reduced.

Browser Font	This controls the font size of the text in the browser from small (10) to large (24).
Mouse Sensitivity	The sensitivity settings of the mouse can be adjusted from the least sensitive (1) up to the most sensitive (10). The default setting is 4.
Decoder Mode	Select from Normal Display or Decoder Mode. Normal Display allows cameras to be accessed and controlled via the Viewer menu. In Decoder mode, connected cameras cannot be accessed, viewed or controlled.
Connectivity Timeout	This sets a time limit after which an inactive connection to a server streaming video is discontinued i.e. selecting '2 minutes' would result in a connection timing out following two minutes of inactivity. This would help reduce unnecessary costs in applications where ISDN on 3G/GPRS links are being used. To de-activate this feature select 'None'.

Display

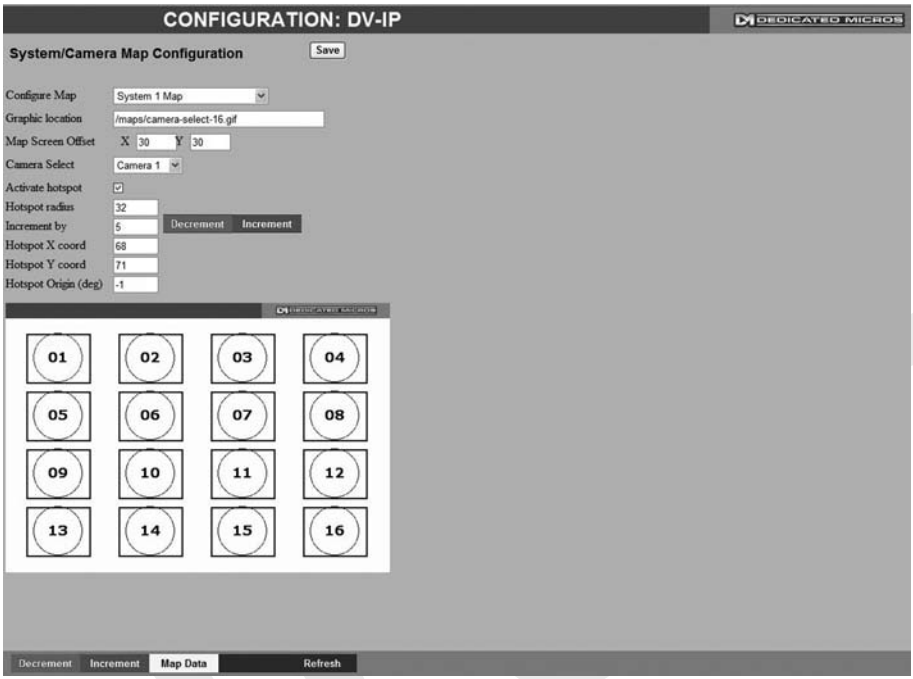
This menu allows configuration of monitor settings used when viewing camera images and text data.



Main monitor text	It is possible to select text to be displayed on the main monitor. The text displayed will include; time, date, mode of operation (Set, Unset or Overide), camera number and camera title.
Spot monitor text	It is possible to select text to be displayed on the spot monitor. The text displayed will include; time, date, camera number and camera title.
Text Colour	The colour of the displayed text can be changed. Select from the options available in the drop down list.
Background Colour	A black background appears by default around the text. It is possible to change the colour of this background. Select from the options available in the drop down list.
Sequence Dwell (secs)	The sequence dwell time can be set from 1 to 99 seconds. The dwell time is the period a camera is displayed before switching to the next camera in the sequence.
Multi-Screen Interlace	Activate to improve multiscreen display by removing 'screen flicker'.

Map Config

This menu allows images to be imported and used as maps that can be displayed in the Viewer Menus. The map can then have hot spots added to allow quick navigation to individual cameras. An overview 'System Selection Map' can also be added to navigate between different systems.



Configure Map	Select the relevant system using the drop down menu, or use the 'Overall System Selection Map' option to create a map to navigate between systems. E.g. the Overall System Selection Map will display all available numbered systems. Selecting a hotspot then opens the relevant System camera map.
Graphic Location	Enter the location of the relevant map graphic, including the **full** I.P address of the server holding the map. The map image will be displayed if linking is successful. The linked map can be in gif or jpeg format and should not exceed 500 by 350 pixels.
Map Screen Offset	These co-ordinates control where the map graphic will be displayed on the monitor when the map button is pressed in the Viewer menu. The co-ordinates control the top left corner of the wndow.
Camera Select	Select which camera will link to the hot spot.
Activate Hotspot	This button allows hotspots to be hidden. Select to activate and display the camera hotspot.
Hotspot Radius	Enter the radius (in pixels) of the hotspot.
Increment by	This controls the step size (in pixels) used by the Increment and Decrement buttons.
Decrement (Red)	Click to reduce the size of the selected hotspot by the 'Increment by' setting.

Increment (Green)	Select to increase the size of selected hotspot by the 'Increment by' setting.
Hotspot X co-ord	Use to position the centre of the hotspot along the X axis e.g. entering 20 would place the hotspot centre 20 pixels from the left edge of the map.
Hotspot Y co-ord	Use to position the centre of the hotspot along the Y axis e.g. entering 20 would place the hotspot centre 20 pixels up from the bottom edge of the map.

Note: *The hotspot can also be positioned by clicking directly on the map.*

Hotspot Origin (deg)	This option should be used when the hotspot relates to a PTZ camera. Clicking the hotspot will send the PTZ camera to a matching relative position, unless the centre of the hotspot is selected in which case the camera will be viewed from the current location. This relative position will depend on the data entered in the Hotspot Origin. A setting of '0' would result in the camera facing its Original (base) position. To change the preset position, enter a number between 1 and 360. A setting of 20 would set the preset position to 20 degrees to the right of its 'origin' position, 180 would send it opposite to the origin position. *Refer to the 'Viewer Menus-PTZ Profile menu' for information on establishing an Origin position for a PTZ camera.*

Map Data

The Map Data menu allows Map Config data to be Imported/Exported. This enables map data to be saved and stored for future use, or used between multiple consoles.

Note: *The Map Data menu will only be available when viewing the menu pages remotely i.e. via the web pages.*

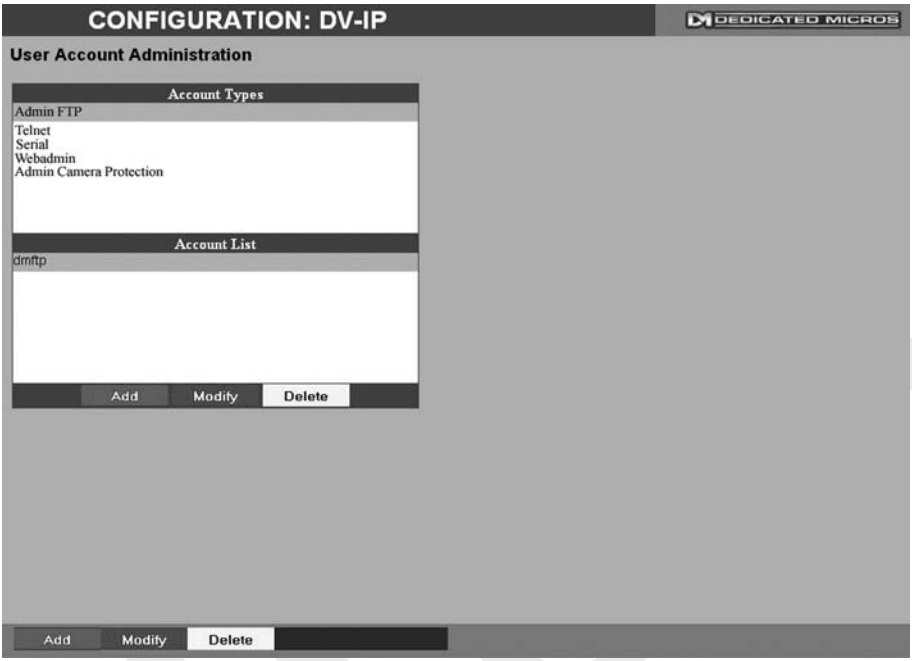
To save map data, highlight and copy all text displayed in the Map Data text window, then save this data as a text file.

To import data, copy relevant text from an external location and paste into the Map Data text window. When the menu is exited, this data will be used as the Map Config settings.

Note: *If importing data, remember to first save any current map data as required.*

User Accounts

The unit can protect configuration procedures by limiting access to specific users via the use of accounts and passwords.



Account Types	The available account types for which users and passwords can be assigned privileges are: Admin FTP Telnet Serial WebAdmin Camera Viewer
Account List	When an Account Type is highlighted, details of users with access will be displayed.
Add	Highlight an administration feature i.e. Serial and select 'Add'. Enter the new User Name and Password. That user's name will now be displayed in the account list.
Modify/Delete	To modify or delete a user's settings, highlight the user in the list and press the relevant button to Modify or Delete.

Note: *If viewing the User Accounts page via a local monitor and navigating with the I.R Remote Control. Press the left directional button from the menu tree to access the Account List.*

Camera Settings

The Camera Settings menus allow configuration of cameras connected to the unit. Refer to the individual menus for further details.

The Camera page allows the quick configuration of all connected local camera channels.

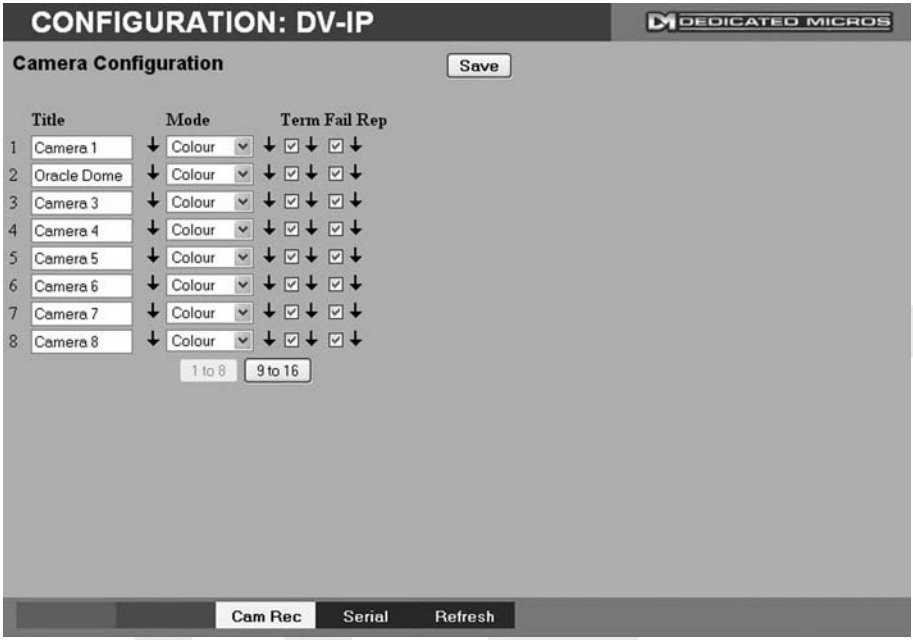
The I.P Camera page allows configuration of incoming digital video streams originating from an IP address.

The Camera Setup page allows the colour and contrast settings for each individual camera to be adjusted, with a dynamic preview available.

The Camera Telemetry page enables telemetry capable cameras to be configured.

Camera

This menu allows the configuration of active local camera channels. This page will only display the cameras connected to the DVR via the BNC connectors on the rear of the machine, cameras in non-local systems cannot be edited on this page.



Title — Each of the camera titles can be edited for ease of use i.e. the camera type, location or view description could be used.

Note: *If a camera title is entered via the local monitor, an on-screen virtual keyboard will be displayed to aid text entry.*

Mode — The settings will default to 'Colour'. If Monochrome cameras are used, select 'Mono'. Selecting 'Mono' will remove colour patterning. If a particular channel is not in use or the camera has failed, select 'Not Connected'.

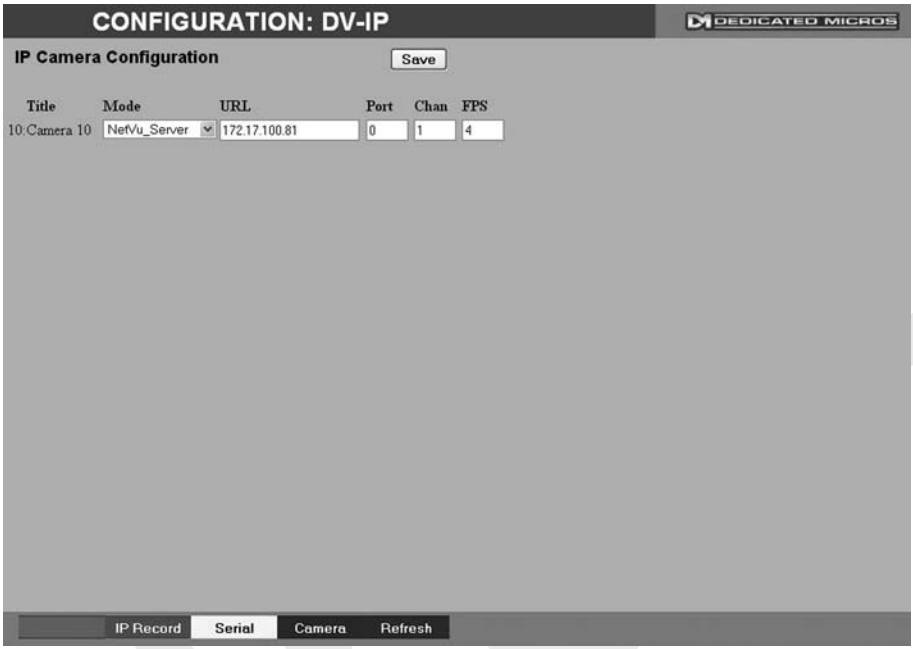
Term — The unit will automatically terminate the camera input with 75Ω. This should be disabled if the video feed is looped through to another device.

Fail Rep — Select this option to activate a Failure report in the event of camera connection failure.

Note: *The arrow button displayed next to each textbox allows settings to be replicated for those cameras listed below. This will only affect the adjacent option i.e. Mode arrow will replicate the Mode setting to cameras below the clicked arrow.*

IP Camera

This menu allows the configuration of connected IP Cameras (cameras connected directly to a network broadcasting a digital video stream from an IP address). It can also connect to other NetVu Connected DVRs and treat one of the network feeds from that DVR as a digital video stream.



Title	Displays the camera title.
Mode	Select the type of IP camera i.e. if the stream is originating from a NetVu Connected server select 'NetVu Server', if from a NetVu camera such as a Dedicated Micros CamVu 2000, select 'NetVu Camera'.
URL	Edit the URL address of the I.P camera source.
Port	If required, edit the port input data. This will default to 80 (HTTP).
Chan	If required, edit the channel input data.
FPS	Edit the FPS (Frames per Second) recording settings.

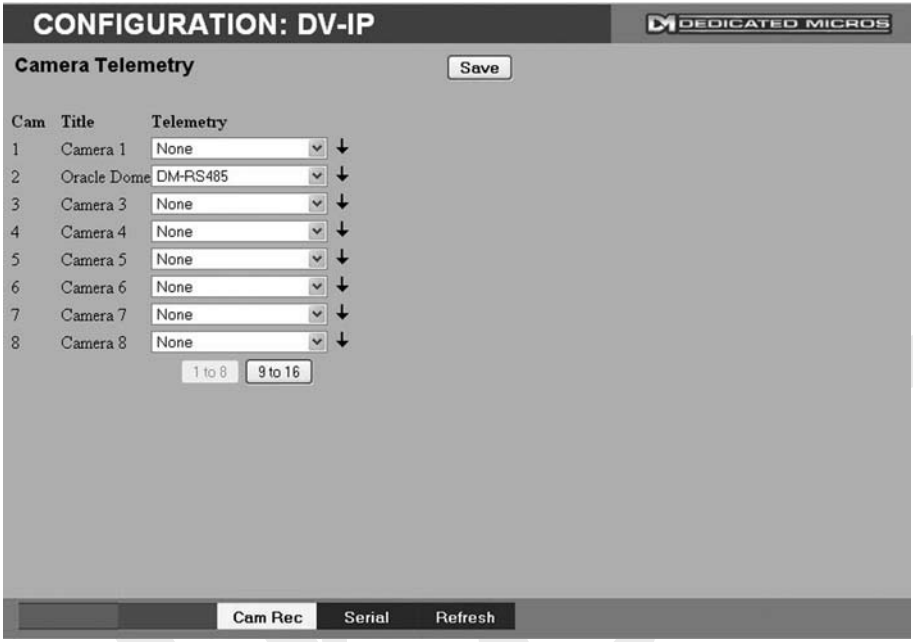
Camera Setup

This menu allows the colour and contrast settings for each individual camera to be adjusted. Use the 'Refresh Cam' button to instantly review any changes.

Channel	Select a camera channel for review and adjustment.
Copy to all	Select this option to apply current settings to all connected cameras.
Camera Colour	Enter a colour value from Min to Max.
Camera Contrast	Enter a contrast value from Min to Max.

Camera Telemetry

This menu allows configuration of telemetry capable cameras and the assignment of telemetry protocols.



Title	Titles assigned to each camera are displayed.
Telemetry	If a telemetry capable camera is connected, the appropriate control protocol should be selected from the accompanying drop down list. *Refer to 'Appendix C' for details of supported telemetry protocols.*

Note: *The arrow button displayed next to each textbox allows settings to be replicated for those cameras listed below. This will only affect the adjacent option i.e. Telemetry arrow will replicate the Telemetry setting for cameras below the clicked arrow.*

Record Settings

The Record Settings menus allow configuration of the units record functions. Record settings can be configured for normal operation, on alarm, by schedule and for set holiday and weekend periods. Selected video data can be saved and protected. Refer to the individual menus for further details.

The Record page allows the basic Recording settings to be edited.

The Profile Record page allows the recording configuration to be based on specific priorities. The recording rate and quality can be customised to respond appropriately to the alarms and time of day. A high degree of control and flexibility is possible using these controls.

The I.P Record page allows recording configurations to be created for a digital video stream originating from an IP address.

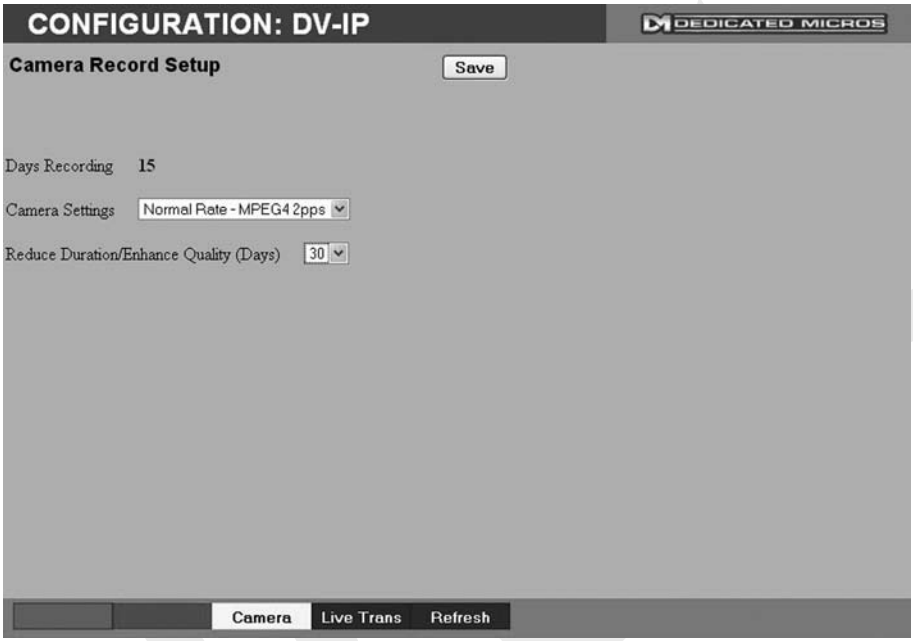
The Schedule page is used to configure the Timer Function, this enables the unit to automatically be put into set/unset mode at specific times on specific days.

The Holiday and Weekend page enables Set mode to be activated for individual dates i.e. public holidays or weekends.

The Protect Video page allows previously recorded data to be protected and retained. If needed, all recording can be halted and saved video deleted.

Record

The unit has a range of pre-defined configurations available. As standard the unit can record at 2pps MPEG4 and at a selected number of days. Alternatively the unit can be configured for 0.5pps JPEG recording on each camera or for **Multi***Mode operation (note that this will result in the record duration being determined by the time period the unit is in alarm).*



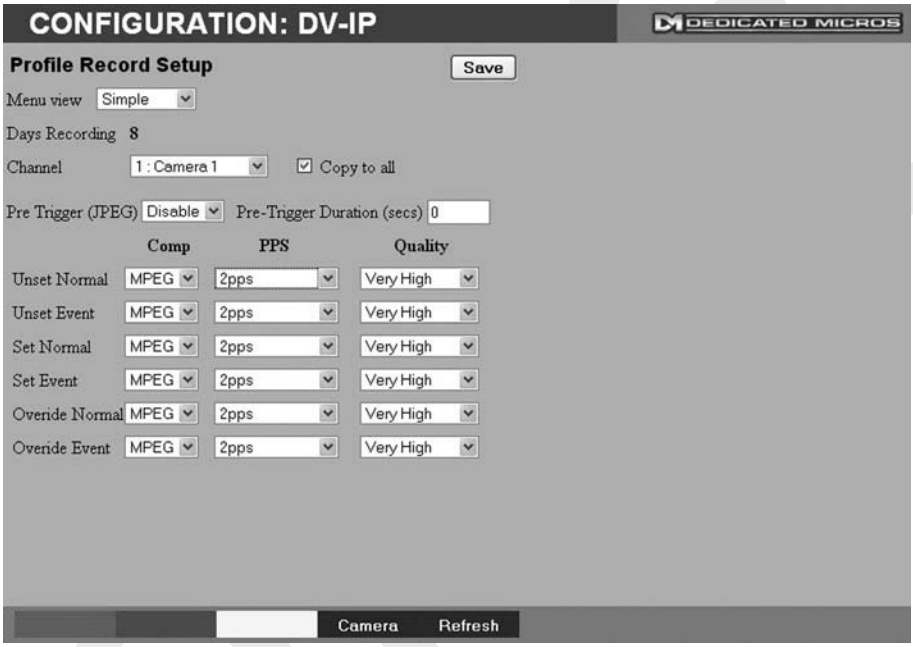
Days Recording	Displays the record duration possible using the current configuration.
Camera Settings	Choose the rate of non alarm recording to be used from the range of preset recording profiles. Select from Normal Rate MPEG4 2pps, Normal Rate JPEG 0.5pps or **Multi***Mode* recording.
Record Duration/Enhance Quality	The recording duration can be limited to a set number of days; allowing the recording quality to be enhanced for a shorter storage period.

Note: *The default record duration will either be 30 or 60 days, dependant on model.*

Profile Record

It is possible to set the unit recording configuration based on specific priorities. The **Multi***Mode recording feature offers the ability to set different recording rates, resolutions and compression formats across unset, set and overide modes for each individual camera. By varying the quality, bit rate and file size of recorded images, the* **Multi***Mode function enables the recording capabilities of the unit to be greatly increased. The Profile record menu can be accessed in a Simple format or in Advanced mode. The Advance mode offering greater opportunities to dynamically edit individual cameras recording capabilities.*

Simple Record



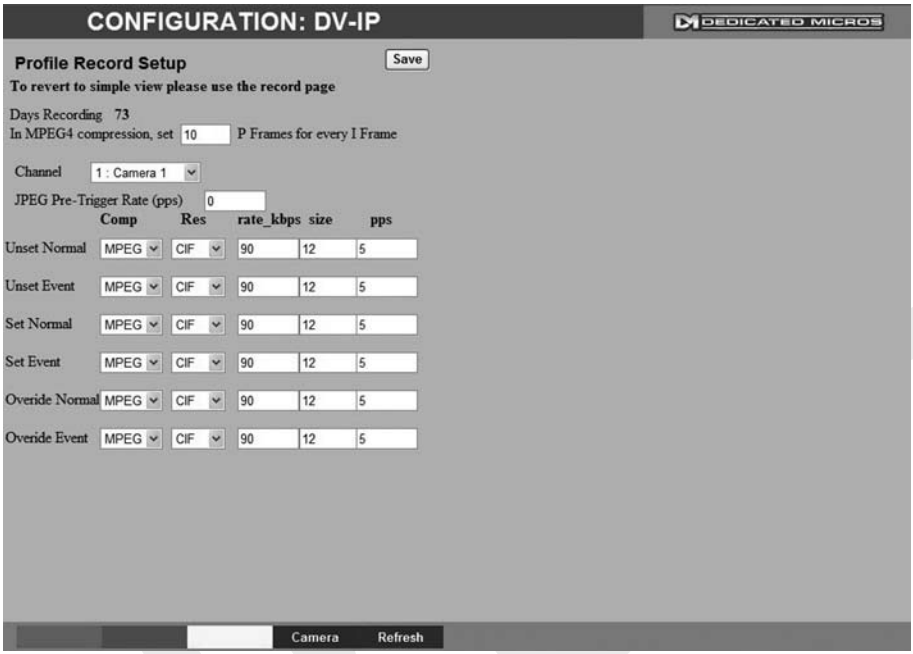
Menu View	Switch to the Advanced Profile Record menu.
Days Recording	Displays the record duration possible using the current configuration.
Max Collection Resolution	Setting the Max Collection Resoluition limits the unit to record within the following maximum resolutions across all cameras: CIF global pps at a maximum 400pps. 2CIF global pps at a maximum 200pps. 4CIF global pps at a maximum 100pps. Lowering the resoluion settings will significantly lessen the storage capacity requirements.
Channel	Enables selection of a specific camera for editing.
Copy To All	Select to copy the current profile record settings to all camera channels.

Pre-Trigger	Enablng the Pre-Trigger feature will buffer and store alarm recording prior to an event trigger. It will use the maximum available memory dependent on other cameras requirements of the buffer space. Select 'Enable' to activate.
Pre-Trigger Duration (secs)	The Pre-Trigger Duration is the maximum possible time that data will be stored prior to an event trigger.
Unset/Set/Override Normal	Shows the recording profile used by the camera if no Timer Functions are applied and the camera is operating under Normal (non Event) conditions. *Refer to the 'Schedules' section for further details.*
Unset/Set/Override Event	Shows the recording quality that will be used by the camera during an Alarm or Event. Note that Set and Override schedules will be used only when Timed Schedules are applied. *Refer to the 'Schedules' section for further details.*
Comp	Select image compression format (MPEG or JPEG).
PPS	The accompanying dropdown list allows the number of frames captured per second to be set. The pictures per second (pps) options allow either 6, 5, 2, 1, 0.5, 0.35 or 0.1 pps to be recorded. Pictures can also be recorded at 'Real Time' speed, '3/4 Real Time' or '1/2 Real Time'. To disable record, choose the 'No Record' option. Select 'User Defined' to use settings established in the Advanced Profile Record menu.
Quality	The accompanying dropdown list allows the quality of recorded images to be set. Select from Maximum, High, Medium, or Low. Select User Defined to use setting established in the Advance Profile Record menu.

Note: *The higher the Quality setting, the greater the storage space used.*

Advanced Record

Note: *When Advanced Record settings have been changed, it is not possible access the Simple Record menu until the newly configured Advanced Record settings have been applied. To do this, open the Record menu and select the 'Multimode' option. It will then be possible to return to the Profile Record menu and access Simple Record.*



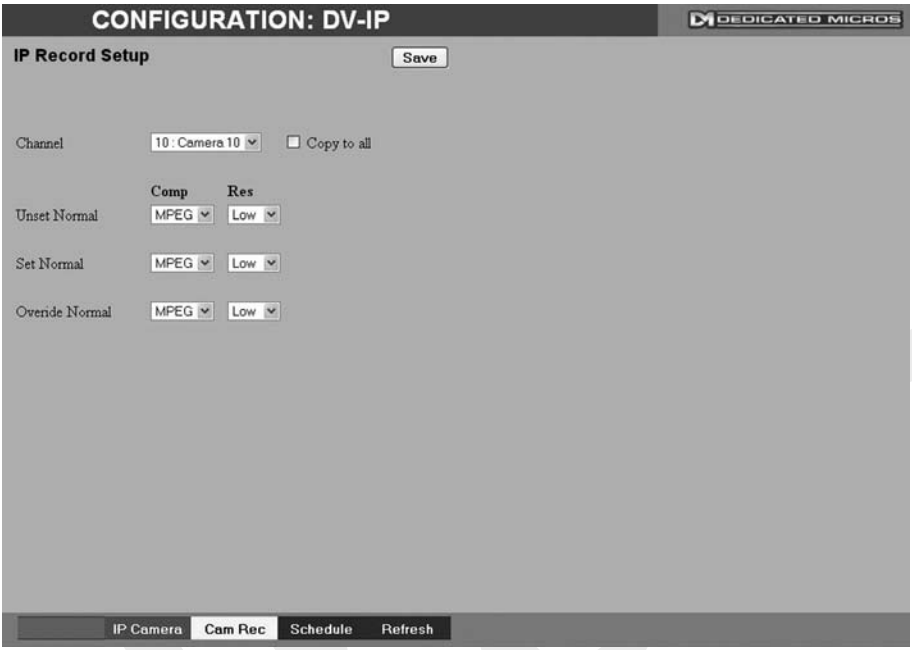
Menu View	Switch to the Simple Profile Record menu.
Days Recording	Displays the record duration possible using the current configuration.
MPEG4 Compression	If using MPEG4 recording, edit the number of P-Frames recorded before a new I-Frame (keyframe) will be taken.
Channel	Enables selection of a specific camera for editing.
Copy To All	Select to copy the current profile record settings to all camera channels.
Pre-Trigger Rate (pps)	The Pre-Trigger feature will buffer and store alarm recording prior to an event trigger. It will use the maximum available memory dependent on other cameras requirements of the buffer space. Enter the record rate (in pps).
Unset/Set/Override Normal	Shows the recording profile used by the camera if no Timed Schedules are applied and the camera is operating under Normal (non Event) conditions. *Refer to 'Schedule' for further information.*
Unset/Set/Override Event	Shows the recording quality that will be used by the camera during an Alarm or Event. Note that Set and Override schedules will be used only when Timed Schedules are applied. *Refer to 'Schedule' for further information*.
Comp	Select image compression format (MPEG or JPEG).
Res	Select image size (QCIF, CIF, 2CIF or 4CIF).

Rate_kbps	If MPEG4 is selected, the figure entered here will be the bit rate allocated. A higher bit rate will provide better quality. MPEG bit rates can be entered within the range of 45-2500K bits/second.
Size	If JPEG is selected, the figure entered here will be the size of the JPEG transmitted (in Kbytes). JPEG file sizes can be configured within the range of 5-45Kbytes
pps	This shows the number of pictures recorded per second.

IP Record

This menu enables the configuration of IP camera record settings.

Note: *There is only normal 'non event' recording mode for connected IP cameras.*

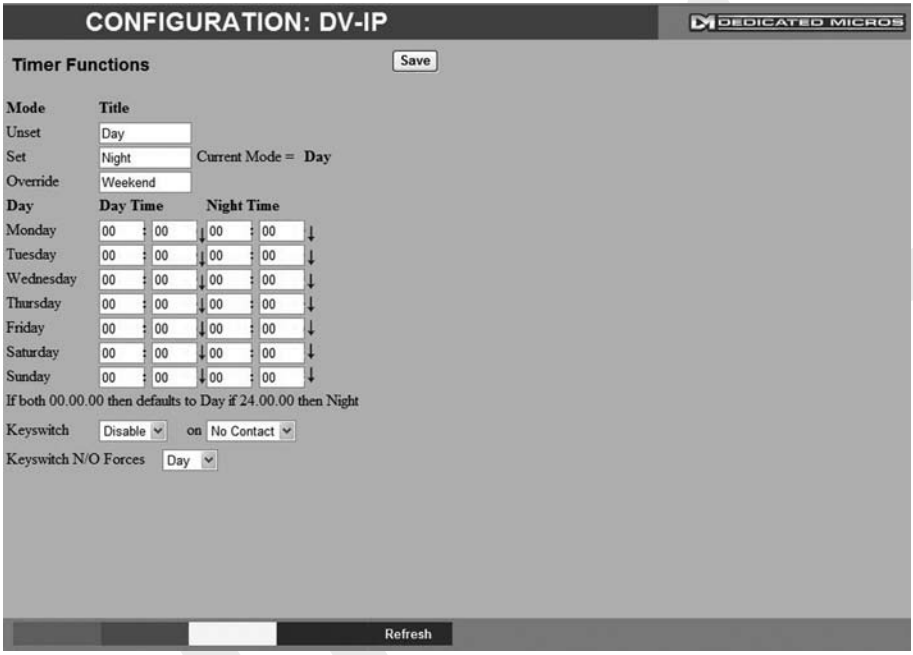


Channel	Enables selection of a specific I.P camera for editing. Only cameras designated as I.P will be available.
Copy To All	Select to copy the current record settings to all connected IP cameras.
Unset/Set/Override Normal	This column shows the recording profile used by the camera when operating under Normal (non Event) conditions.
Comp	Select image compression format (MPEG or JPEG).
Res	For both MPEG and JPEG recording, select either Hi, Medium or Low quality resolution settings.

Schedule

This menu allows the Timer Function to be configured. The Timer Function enables the unit to automatically be put into set/unset mode at specific times on specific days. This can help reduce unnecessary alarm triggers.

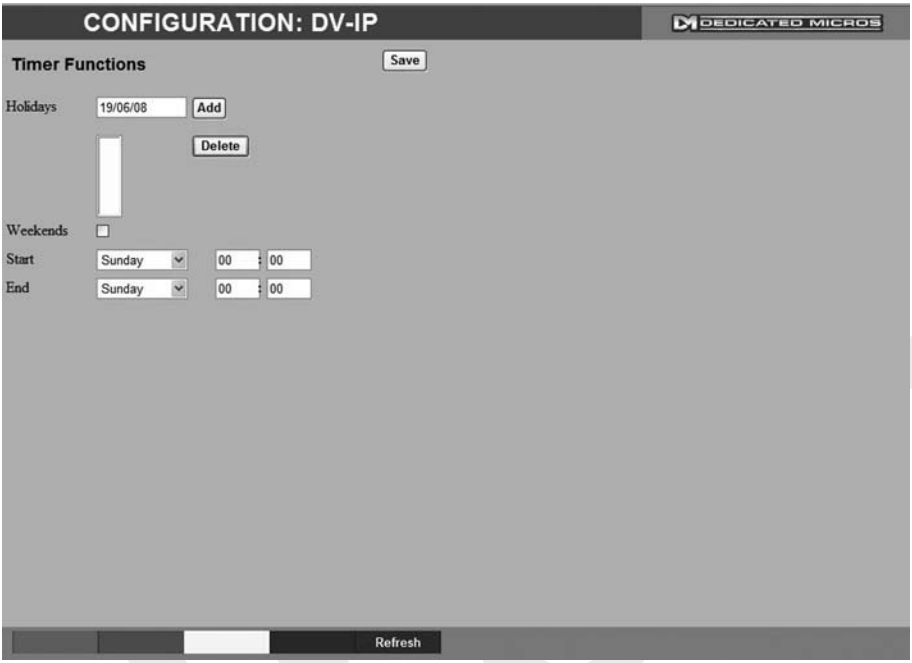
When the unit is Set or Unset mode, combine with different recording qualities and rates under normal and alarm conditions for a high degree of control in a range of situations.



Mode/Title	Allows a name to be entered for Unset, Set and Override mode.
Current Mode	Shows the current timer mode according to the names entered in the Mode/Title text boxes.
Day Time	Enter the time (using the 24hr clock) when Day Time mode will begin.
Night TIme	Enter the time (using the 24hr clock) when Night Time mode will begin.
Keyswitch	A Keyswitch can be used to switch the recording profile (Unset/ Set), If required, select 'Enable' then choose a contact to be used as the Keyswitch.
Keyswitch-N/O Forces	Select whether the unit will be in 'Day' (Unset) or 'Night' (Set) mode when Keyswitch relay opens.

Holiday & Weekend

This menu allows the unit to be automatically switched to Set mode for individual days i.e. public holidays or during a weekend (or any defined period).

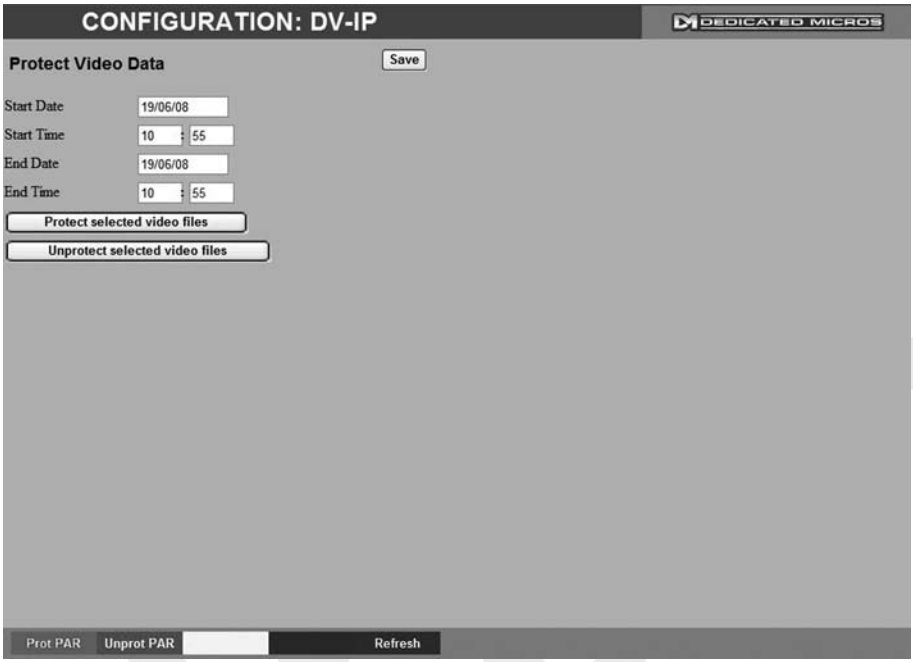


Holidays	Enter a date and press the Add button. The date will be added to the Holiday list. To delete, highlight and press Delete.
Weekends	Tick to activate the Weekend function. Set mode will now be active for the dates outlined below.
Start	Select a Start day and time for Weekend mode.
End	Select an End day and time for Weekend mode.

Note: *Weekend mode will activate each week until deselected.*

Protect Video

This menu allows the unit to automatically protect and retain previously recorded data. Previously saved data can also be unprotected. All recording can be stopped and all saved video deleted.



Start Date	Enter a start date to protect/unprotect video.
Start Time	Enter a start time to protect/unprotect video.
End Date	Enter an end date to protect/unprotect video.
End Time	Enter an end time to protect/unprotect video.
Protect selected video files	Select this option to protect recorded video for the set time period.
Unprotect selected video files	Select this option to unprotect recorded video for the set time period.
Prot PAR	This option will also protect recorded video for the set time period.
Unprotect PAR	This option will also unprotect recorded video for the set time period.

Alarm Settings

The Alarm Settings menus allow configuration of the units alarm functionality. Individual alarm inputs and alarm zones can be configured. Global relays can be activated and the Activity grid set up. Refer to the individual menus for further details.

The Alarm Input page allows configuration of alarm channels. Up to 20 alarm channels are available.

The Zone Input page enables the configuration of alarm zones. Up to 32 separate alarm zones can be created.

The Zone Actions page enables actions such as Go to Preset or Archiving to be allocated to alarm zones. Zones can also be associated with a specific camera. On receipt of an alarm, images from the associated (primary) camera will automatically be displayed in the Viewer menu.

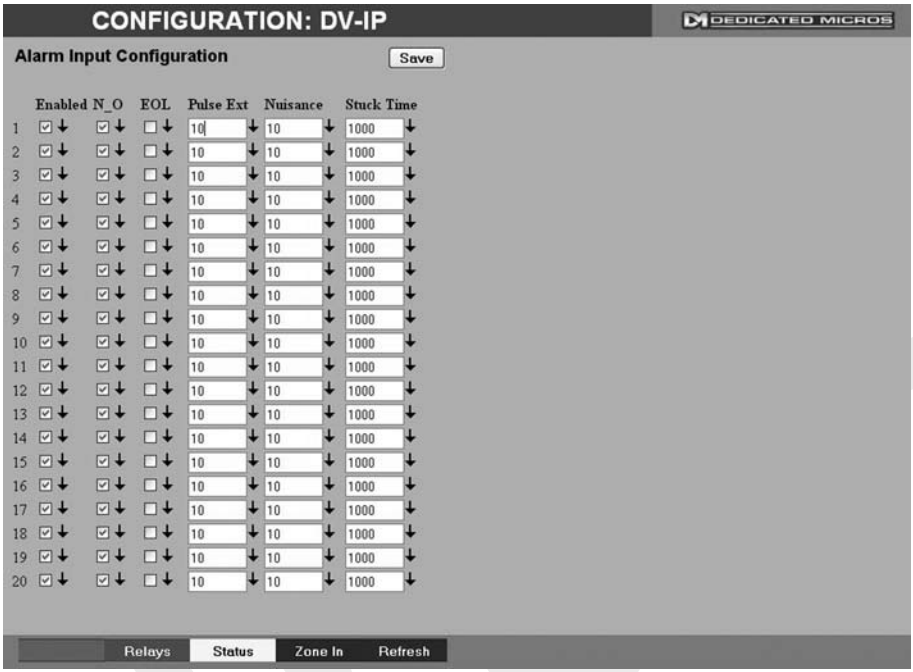
The Activity Setup page allowed activation and configuration of the Activity feature on all video inputs. The Activity feature enables cameras to automatically detect any movement/changes within the video scene. This can trigger a number of operations such as FTP alarm notification or an increase in the recording rate.

The Activity Response page enables configuration of responses following an Activity Detection trigger.

The Global Relays page allows the five onboard relay connections and global relay settings to be configured.

Alarm Input

This menu allows configuration of the alarm settings, refer to 'Installing the DV-IP HD Unit' for hardware installation guidance.



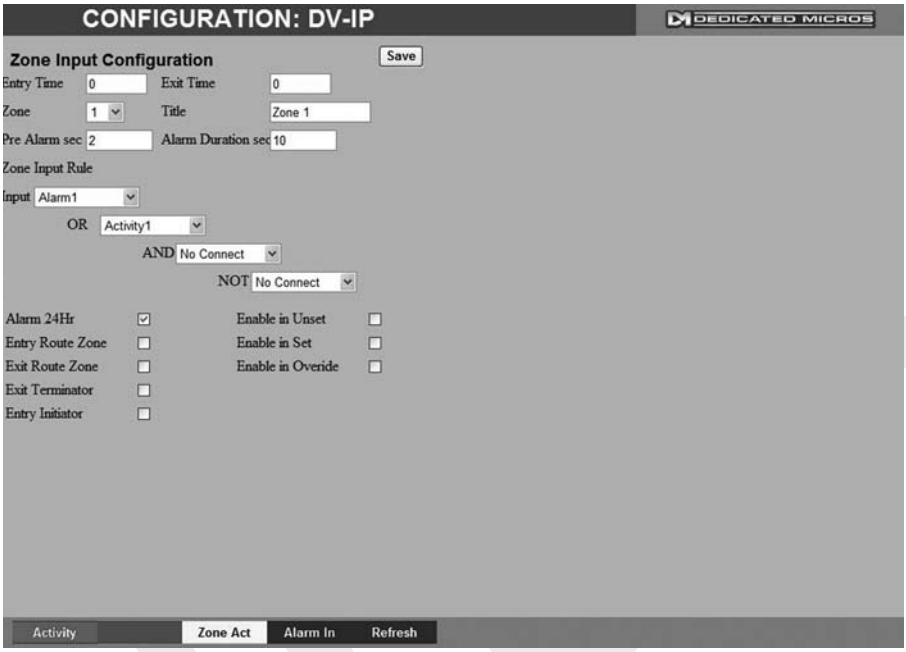
Number	This identifies which input is being configured. The unit supports 20 on-board alarms.
Enabled	Each input must be enabled to function. If the input is not enabled and an alarm is received, the unit will not acknowledge the alarm.
N_O (Normally Open Contact)	By default an input will normally be closed, ticking the N_O box forces the corresponding input open for alarm.
EOL	The End Of Line (EOL) option enables the inputs to detect any changes in the electronic input resistance. A change outside the expected values will result in a Tamper Alarm (short circuit or open circuit) being detected and the system switching to alarm mode.
Pulse Ext	A pulse extension is used to prevent double triggers on a single alarm. The pulse extension time starts on an alarm trigger. If that contact is triggered again after the first alarm has finished but within the pulse extension, the second trigger will not restart the alarm, but will extend the current alarm duration. Enter the time in milliseconds for this extension.

Nuisance	This is a repetitive detector value. When an alarm is received on the unit, it will store the alarm time and monitor the number of times the same detector is triggered within an hour period. If the detector is triggered the set number of times to activate the nuisance count, the unit will de-activate this detector from triggering an alarm for an hour. The unit will continue to monitor the detector and check how many times it is triggered during this period. If it is again triggered more than the amount set in the nuisance counter, it will remain de-activated for another hour. This will continue until the trigger value falls below the nuisance count setting. To disable this feature, leave the setting as '0'.
Stuck Time	If any of the alarms/detectors are active for a period longer than specified, these will automatically be omitted. This time period is set in minutes.

Note: *The arrow button displayed next to each textbox allows settings to be replicated for those cameras listed below. This will only affect the adjacent option i.e. Enabled arrow will replicate the Enabled setting to cameras below the clicked arrow.*

Zone Input

This menu allows the configuration of established alarm zones. A single or multiple trigger can be used to generate an alarm. It is possible to allocate up to 32 alarm zones to carry out a combination of actions. Use these options in conjunction with the Zone Actions menu.



Entry timer	This is the number of seconds allowed for the user to enter the zone and disable the alarms. If the alarm is not disabled within this period the alarm will be triggered.
Exit timer	This is the number of seconds from the alarm being set within which the user must exit the set zone. If the user is still within the zone after this time period the alarm will be triggered.
Zone	An alarm zone logically groups alarms and initiates actions when an alarm is activated, there are 32 configurable zones.
Title	This information is stored along with the relevant images in the database, ensure this has relevance to the alarm zone.
Pre-Alarm sec	This is the time period prior to the start of the alarm included with the alarm recording for archive. These images will also be protected from being overwritten.
Alarm Duration sec	This is the minimum time period in seconds (from the start of the alarm) that is protected from being overwritten. This time will include the alarm trigger, the pulse extension and any post alarm recording. It will not include pre-alarm images.
Zone Input Rule	This determines which input(s) will trigger the zone alarm:
Input	This sets an input or system function as the primary alarm trigger. Select from Alarms 1-32, Activity 1-16, Preset 1-16, Disk Low, Disk Full, Panic, Archiving Slow, Archiving Fault, Virtual 1-16, and Keyword 1-32.

Zone OR Input	The Zone OR Input identifies an alternative input that can also be used to trigger the zone alarm. This means an alarm trigger can be received on the Zone Alarm Input or the Zone OR Input for the trigger to be activated.
Zone AND Input	The Zone AND Input identifies that an alarm trigger needs to be received on both the Zone Alarm Input and the Zone AND Input for the trigger to be activated and the alarm action to the automatically initiated.
Zone NOT Input	The unit will only issue the alarm actions if the trigger is received on the zone alarm input and NOT on the Zone input.
Alarm 24Hr	This option can be enabled for alarms that do not require change at any time and are to remain as programmed i.e. Panic Alarm. When this is selected, the Set, Unset and Override options are disabled.
Entry Route Zone	This creates deferred alarms along a specified route while the entry time is active. This is in compliance with BS8418 (the British Standard for remote video reporting centres). Diverting from the entry route during the countdown will result in the alarm being triggered immediately. This allows staff entry without triggering an alarm prior to switching the system to Set mode.
Exit route Zone	This creates deferred alarms along a specified route while the exit time is active. This is in compliance with BS8418 (the British Standard for remote video reporting centres). Diverting from the exit route during the countdown will result in the alarm being triggered immediately. This allows staff to exit without triggering an alarm.
Exit Terminator	This will trigger the exit timer if the system is set. A countdown timer will automatically start when the alarm is activated and ensure the alarm system is not activated by other specified alarm triggers for the Set time i.e. allowing a Guard to exit a building.
Entry Initiator	This will trigger the entry timer if the system is set. A countdown timer will automatically start when the 'primary' alarm trigger i.e. front door, is actioned. This ensures the alarm system is not activated by other specified alarm triggers for the set time
Enable in Unset	Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Unset operation mode.
Enable in Set	Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Set operation mode.
Enable in Override	Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Override operation mode.

Zone Actions

This menu allows actions to be allocated to individual alarm zones; Primary and Secondary cameras can be allocated to the zone and actions undertaken following alarm activation. This page should be configured in conjunction with the Zone Inputs menu.

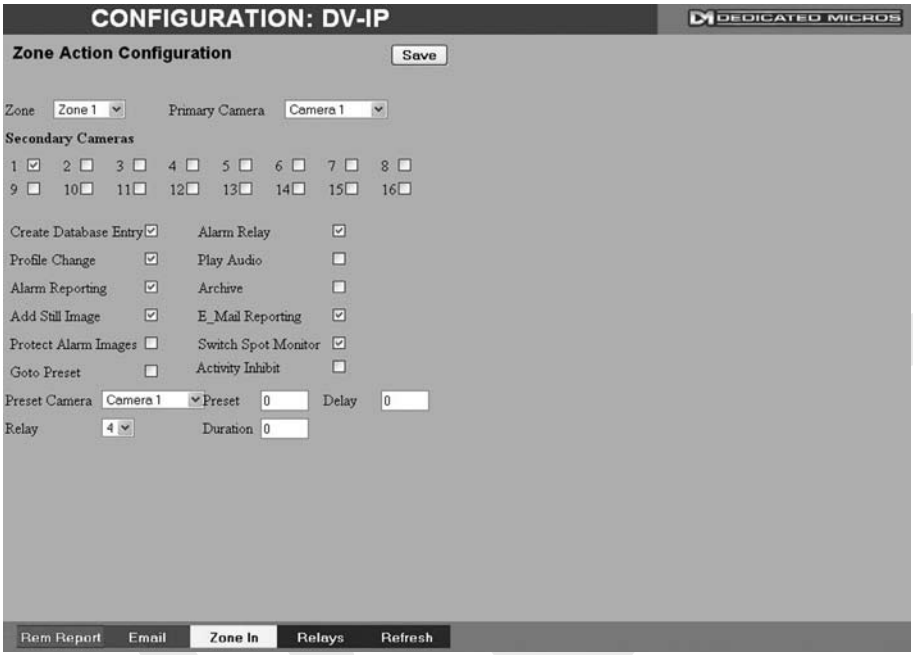
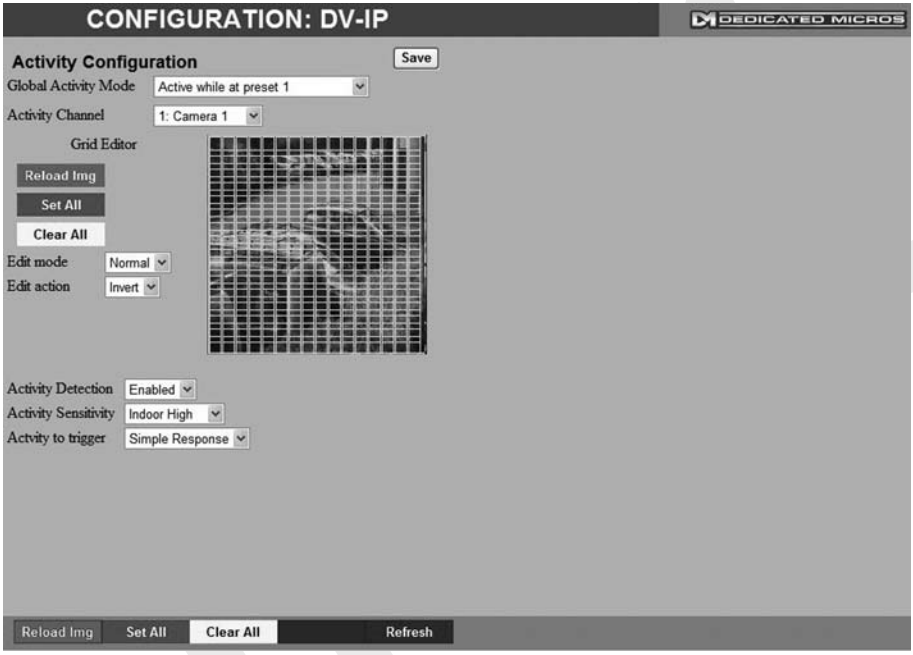


Image Protection Period	This is the time period in days that the alarm images will be protected. When this time period has elapsed the images will automatically be overwritten.
Alarm Display Mode	If 'Jump To Primary Camera' is selected, the Viewer will display images from the primary camera in the alarm zone on receipt of the alarm. Select 'No Action' to disable this feature.
Zone	Select a zone (alarm) to configure.
Primary Camera	This allows a camera to be assigned as the primary camera associated with the Alarm Zone. The feed camera will be shown when an alarm in this zone is triggered.
Secondary Cameras	This setting gives the facility to assign additional cameras to the zone. These cameras will become part of the alarm sequence shown in the Viewer menus when the alarm zone is triggered.
Create Database Entry	An alarm entry will be added to the database, the zone title will be used as part of the entry information. *Refer to 'Zone Input for more information'.*
Profile Change	Select to switch to Profile recording mode upon alarm activation.
Alarm Reporting	This must be enabled for the unit to automatically connect on alarm. This will enable the unit to send an alarm notification to an external destination i.e. an Email, PPP message or text alarm.
Add Still Image	This will record a still image of the trigger along with the standard recording. This can then be sent on to an external destination.
Protect alarm Images	Alarm images can automatically be protected from being overwritten.

Goto Preset	It is possible to action a camera to automatically be sent to a preset position when an alarm is triggered.
Alarm Relay	Any of the onboard or external relays can be configured to automatically close on receipt of an alarm.
Play Audio	It is possible to play associated audio upon zone alarm activation.
Archive	This will ensure the unit automatically downloads alarm images via an FTP connection to an FTP server.
E_Mail Reporting	The unit can send an email when an alarm or activate is detected, *refer to 'Network-E-mail' for more information*.
Switch Spot Monitor	Select to display alarm zone camera(s) on the Spot Monitor.
Activity Inhibit	Select to inhibit the Activity detection feature. *Refer to 'Activity Setup' for more information*.
Preset Camera	The preset camera is the camera which will sent to a designated preset position upon alarm activation.
Preset	Enter the preset position number for the selected camera here.
Delay	Enter the time period (in seconds) that the camera should remain at the preset.
Relay	Select an onboard or external relays to automatically close on receipt of an alarm, if required.
Duration	Enter (in seconds) how long the relay is to remain closed.

Activity Setup

The unit supports Activity Detection on all video inputs. It enables cameras to automatically detect any movement/changes within the video scene; this can trigger a number of operations such as FTP alarm notification and an increase in recording rate.
A still image of the selected camera will be shown in the Grid Editor screen. To establish an Activity zone, edit the cells displayed across the image.
This option should be used in conjunction with the Zone Inputs and Zone Actions menus.



Global Activity Mode	Three options are available for Activity activation. Selecting 'Active while at Preset' will result in Activity mode functioning only when the camera is at preset position 1. Select 'Active while camera not in motion' for Activity mode to function only when the camera is still. Select 'Always Active' for Activity mode to be in constant operation.
Activity Channel	This is a drop down list of the video inputs on the unit, selecting an input will display images from the corresponding video source.
Grid Editor	Use the Grid Editor by placing cells in areas of the camera view where movement will trigger an alarm. To enter cells navigate across the image via the Directional buttons of the I.R Remote Control (if viewing on a local monitor). Place a cell by pressing the OK button. If viewing via the web pages, use the mouse to navigate across the image, use the left mouse button to place a cell.
Reload Img (Red)	This option will update the still image displayed in the Grid Editor.
Set All (Green)	This option will insert a default square of 16 x 16 cells across the displayed video image.
Clear All (Yellow)	This option will clear all entered cells.

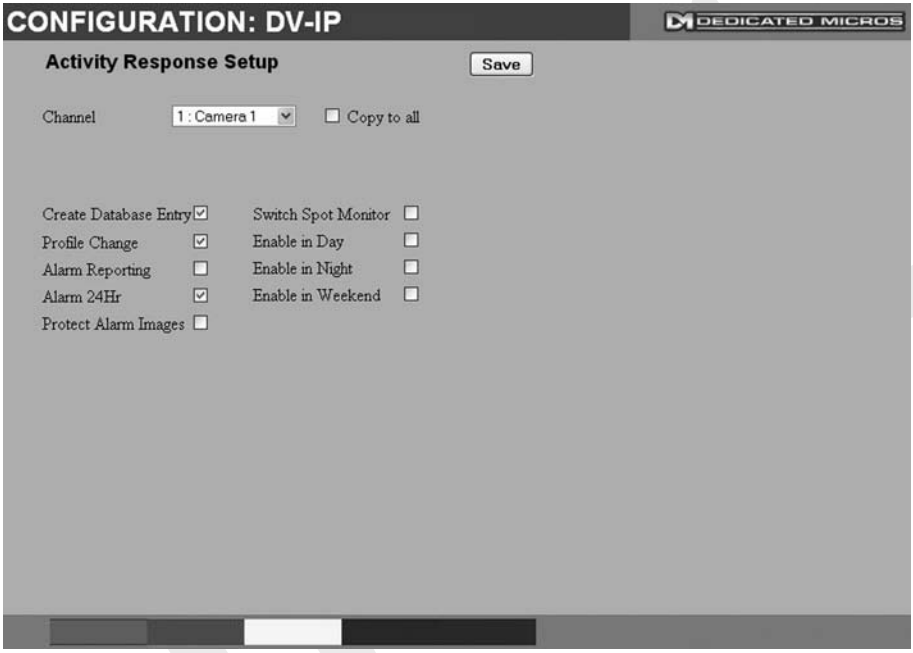
Edit Mode	Leave set as ‘Normal’. Different Edit Mode functions will be added following future development.
Edit Action	Select ‘Invert’ to change the current grid state i.e. Clear to Set. Select ‘Clear’ to remove grids or select ‘Set’ to add grids.
Activity Detection	Select ‘Enabled’ to activate the Activity Detection feature.
Activity Sensitivity	This option allows the sensitivity setting to be established for the activity grid being configured. There are five settings to choose from: Indoor High, Indoor Low, Outdoor High, Outdoor Low, Very Low.
Activity To Trigger	Folliowing Activity activation, select ‘Simple Response’ to trigger specific chosen responses. *Refer to ‘Activity Response Setup’ for more information*. Select ‘Zone’ to apply the Zone Input rules as configured in the Zone Input menu. *Refer to ‘Zone Input’ for more information*.

Activity Response Setup

This menu enables response configuration following activity trigger on a selected camera channel.

Note: *The responses will only activate when 'Simple Response' is selected in the Activity Configuration menu.*

This option should be used in conjunction with the Activity Setup menu.



Channel	Select the camera input for configuration from the drop down list.
Copy To All	Select to copy the current Activity Response settings to all camera channels.
Create Database Entry	When selected, an alarm entry will be added to the Event database.
Profile Change	Select to switch to Profile recording mode upon alarm activation.
Alarm Reporting	This must be enabled for the unit to automatically connect on alarm.
Alarm 24Hr	This will ensure that Activity Detection is permanently enabled on this camera channel.
Protect Alarm Images	Select to automatically protect alarm images from being overwritten.
Switch Spot Monitor	Enable this option to display alarm activated cameras on the connected Spot Monitor.
Enable in Day (Unset)	This will enable Activity Detection when the unit is in Day (Unset) operation mode.
Enable in Night (Set)	This will enable Activity Detection when the unit is in Night (Set) operation mode.
Enable in Weekend (Override)	This will enable Activity Detection when the unit is in Weekend (Override) operation mode.

Global Relays

This menu details how to configure the default relay actions supported on the unit.
The unit supports five onboard relay connections and global relay settings. These global relays can be triggered under specific conditions i.e. on receipt of any alarm or any notification of Activity Detection.

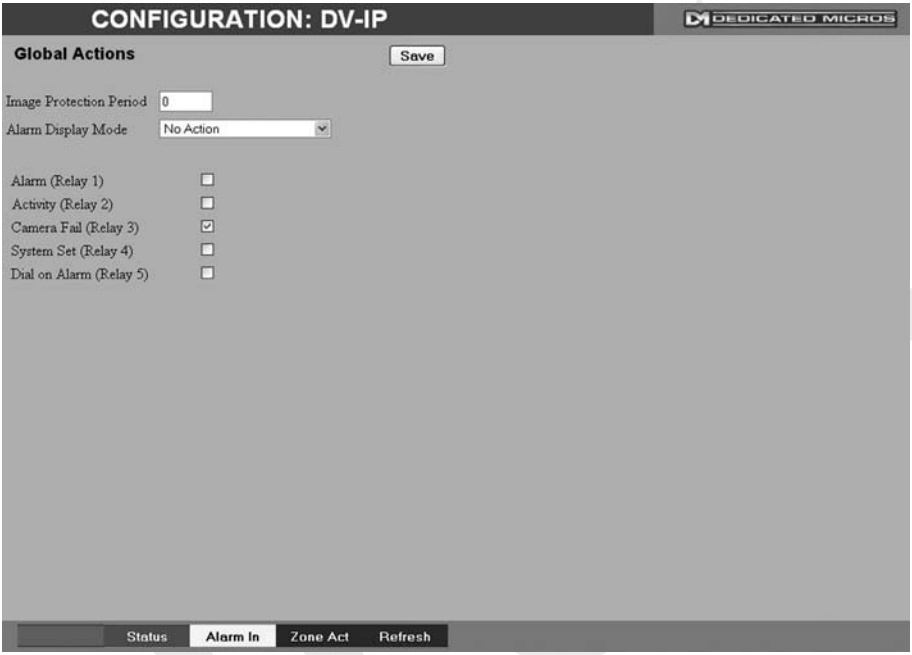


Image Protection Period	Select a time period (in days) that images associated with an alarm will be protected from deletion.
Alarm Display Mode	When a relay has been triggered, the primary camera associated with that relay can immediately be displayed on the local monitor. Select 'Jump To Primary Camera' from the drop down list to activate this function.
Alarm (Relay 1)	Select this option to establish any alarm trigger as a Global Relay. Therefore the relay will close when an alarm is received on ***any*** of the alarm inputs.
Activity (Relay 2)	Select this option to establish any Activity Detection trigger as a Global Relay.Therefore the relay will close when Activity is identified on ***any*** of the camera inputs.
Camera Fail (Relay 3)	Select this option to establish any camera fail trigger as a Global Relay.Therefore the relay will close when there is notification on the system that ***any*** of the enabled video inputs has camera failure (no 1V pk-to-pk signal).
System Set (Relay 4)	When selected, the unit will automatically switch to Set mode following relay activation.
Dial on Alarm (Relay 5)	When selected, the unit will automatically connect to the designated Remote Video Monitoring Centre following relay trigger.

Network Settings

The Network Settings menus allow configuration of the units network functionality. Key network settings can be established such as the units IP address and maximum transmission rate. E-mail, remote reporting on alarm and FTP download can also be configured. Refer to the individual menus for further details.

The Network Settings page allows configuration of the unit's network connections such as the name assigned to the unit and its IP address.

The Live Transmission page enables JPEG and MPEG profiles to be created for transmitting images via a High, Medium or Low quality network connections.

The Email page allows configuration of the Email feature. The unit can automatically transmit an e-mail to an SMTP Server following an event i.e. on receipt of an alarm or a camera failure notice.

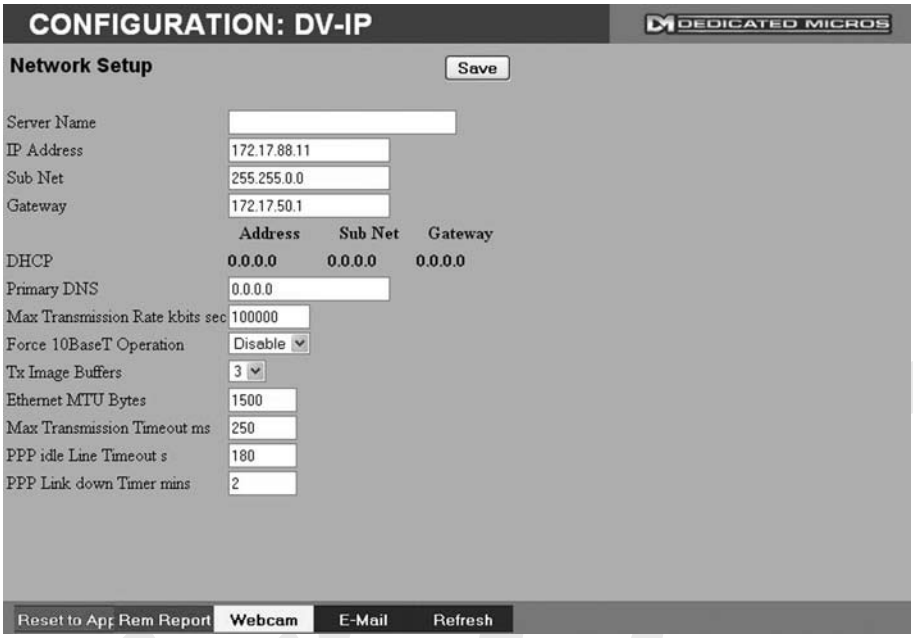
The Remote Reporting page allows a Remote Video Receiving Centre's (RVRC) configuration details to be entered. The RVRC will then be contacted following a selected event occurring i.e. reported alarm or camera failure.

The Web Cam page allows recordings from any of the units camera inputs to be forwarded to a Webserver. The images can then be incorporated into a web page and accessed via a standard web browser.

The FTP Download page allows data to be archived to a central FTP server. This could be on receipt of an alarm, Activity activation or at a scheduled time to back-up recorded video.

Network

This menu allows additional network settings to be configured if required.

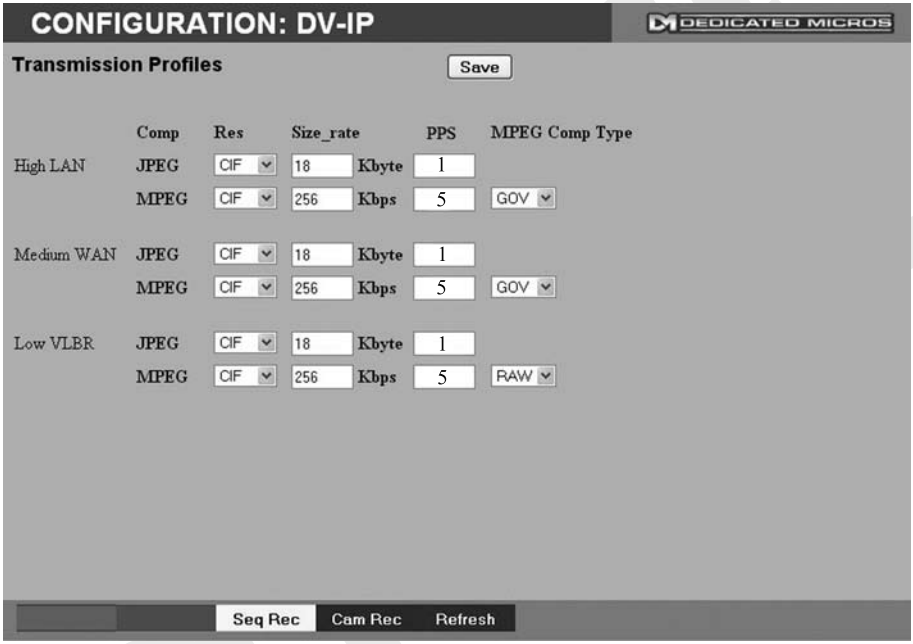


Server Name	This field can be edited to allocate a name to the unit. This would be used if accessing the unit via a Domain Name Server (DNS). It would also be displayed in NetVu ObserVer and when transmitting information to Remote Video Response Centres.
IP Address	This is the IP address allocated to the unit.
Sub Net	This is the subnet of the network where the unit is located.
Gateway	This is the IP address of the default gateway (router).
Primary DNS	This is the primary DNS server IP address for applications utilising domain names.
Max Transmission Rate	This shows the maximum transmission speed for the network type being used.
Force 10BaseT operation	The unit supports 10 or 100BaseT half duplex transmission. Selecting this option will force the unit to operate at a 10BaseT connection.
Tx Image Buffers	This is used in order to improve the picture delivery over Ethernet when using a slow connection i.e. 256Kbps. A buffer setting of 1,2 or 3 is available.
Ethernet MTU	This is the maximum transmit unit for the Ethernet packet. The MTU is the largest physical packet size measured in bytes that the network can transmit. By default this figure is set to 1500bytes.
Mx Transmission Timeout ms	This is the time (in milliseconds) the unit will wait to re-send a packet if an acknowledgement is not received.
PPP Idle Line Timeout s	This is the time (in seconds) the unit will wait before disconnecting the PPP (Point to Point Protocol) link if data has not been transmitted or received.

PPP Link Down Timer mins	If for any reason the PPP connection is lost, this is the time (in minutes) before the unit will be forced to drop the PPP connection.

Live Transmissions

The NetVu Connected remote viewing software will use the settings configured on this page as the defaults for JPEG & MPEG; High, Medium and Low settings. The DV-IP HD transmits live images using JPEG or MPEG image formats utilising soft codec architecture (VISP). The DV-IP HD features **Trans***Coding enabling recorded JPEG images to be Transcoded to low bit rate and MPEG4 for transmission over limited bandwith links. This is essential for efficient, 'fast update' remote viewing of recorded video in central monitoring applications. The DV-IP HD can also Transcode from recorded high bit rate MPEG4 to low bit rate MPEG4.*



High LAN/Medium WAN/Low VLBR — This shows the transmission settings configured for a High quality LAN (Local Area Network) connection, Medium quality WAN (Wide Area Network) connection or a Low quality VLBR (Very Low Bit Rate connection).

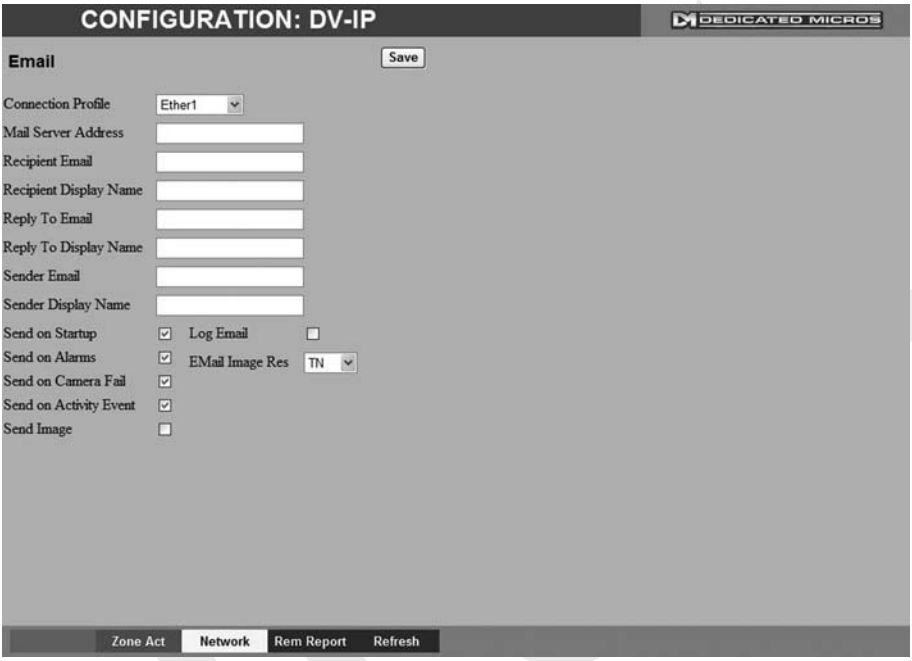
Res — For MPEG and JPEG transmission, select image resolution settings (4CIF, 2CIF, CIF or QCIF).

Size_rate — For JPEG, the figure entered will be the size of the JPEG transmitted (in Kbytes). For MPEG4. the figure will be the bit rate allocated. A higher rate will provide better quality picture display. JPEG file sizes can be configured in the range of 5-45Kbytes and MPEG bit rates in the range of 45-2500Kbits/second.

PPS	This shows the pictures transmitted per second (PPS). For JPEG, the actual images transmitted will depend on the bandwith of the link, increasing the pictures sent per second may introduce time lag if bandwith is not sufficient. On MPEG transmission, increasing the pictures sent will also reduce the quality of the images (as more images are transmitted for the defined bit rate).
MPEG Comp Type	Select whether transmitted MPEG4 images are sent as RAW data or in GOV (Group of Video) format.

E Mail

The unit can automatically transmit an e-mail to an SMTP Server under numerous conditions i.e. on start up, on receipt of an alarm, or camera failure. This allows the unit to be installed in unmanned applications where a Remote Video Response Centre (or Manager etc.) would be notified by e-mail if any of these conditions occur.

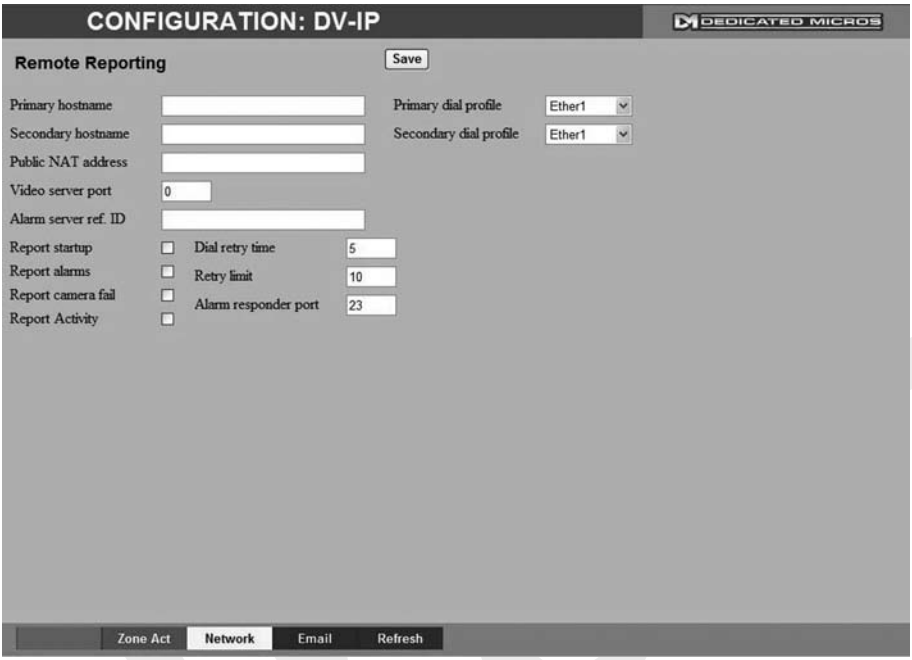


Connection Profile	It is possible for the e-mail to be transmitted via the Ethernet network or dial up connection (PPP 'Point to Point Protocol'). This setting presumes that a modem has been connected or configured and the unit is connected to a LAN or WAN and allocated a valid IP address.
Mail Server Address	This is the IP address or URL of the SMTP Server that the e-mail will be sent to. The SMTP server will then forward this to the intended recipient.
Recipient Email	This is the e-mail address of the intended recipient.
Display Name (Recipient)	This is the addressee name that will be shown in the email name field.
Reply to Email	This field must be configured if the recipient is to reply to an e-mail. The unit does not accept incoming e-mails therefore ensure this is a valid e-mail address.
Display Name (Reply To)	This is the 'reply to' name that will be shown in the email name field.
Sender Email	These optional fields indicate the source of the e-mail notification. If the fields are left blank the unit will use the system name & DNS name to create a sender name.
Display Name (Sender)	This is the sender name that will be shown in the email name field.
Send on Startup	Select to send email notification on startup.

Send on Alarms	Select to send email notification on alarm activation.
Send on Camera Fail	Select to send email notification on camera fail.
Send on Activity Activation	Select to send email notification on activation of the Activity Detection feature.
Send Image	Select to send accompanying image from supporting primary camera.
Log Email	A log can be created for every e-mail transaction that the unit issues.
Email Image Res	Select resolution settings for images sent as 'thumbnail' attachments. Choose from TN (Thumbnail), LO (low res), MED (medium res) and HI (high res).

Remote Reporting

This menu details the configuration requirements for the unit to report to a Remote Video Receiving Centre (RVRC) following alarm activation.



Primary Hostname	This is the IP address or name of the initial host that the unit will transmit an alarm message to.
Primary Dial Profile	It is possible for the alarm message to be transmitted via the Ethernet network or a dial up connection.
Secondary Hostname	If the unit is unable to contact the primary host, an alternative route can be identified via a secondary host. If there is only one alarm receiving IP address, you must enter the details in both the primary and secondary connection settings.
Secondary Dial Profile	It is possible to select a separate dial profile for the secondary host.
Public (NAT) IP Address	This is the public IP (or domain name) for a unit connected to the Internet via a NAT Router or Firewall. This field should be left blank if NAT is not used e.g. a private network.
Video Server Port	This field allows the RVRC to connect to the unit through a router that is using port forwarding e.g. if the video server does not appear on port 80 (HTTP), to the external network.
Alarm Server ref. ID	This is the reference name/ID that will be presented to the RVRC viewing application. It should therefore have some significance to the Operator.
Report Startup	This will send an alarm report when the unit starts up. Any system resets will be identified.
Report Alarms	This must be enabled for the unit to automatically connect on alarm.

Report Camera Fail	Enabling this option ensures the unit reports camera failure on any of the inputs.
Report Activity Activation	Enabling this option ensure the unit reports any Activity Detection.
Dial Retry Time (secs)	If the initial connection attempt fails, the unit will wait for the specified time period (in seconds) before attempting to re-connect.
Retry Limit	This identifies the number of times the unit will attempt to connect after a failed attempt. A setting of '0' means no limit and the unit will continue to try and connect until it is successful.
Alarm Responder Port	This specifies the network port number used for reporting to the alarm server. In normal circumstances this should be left at the default value.

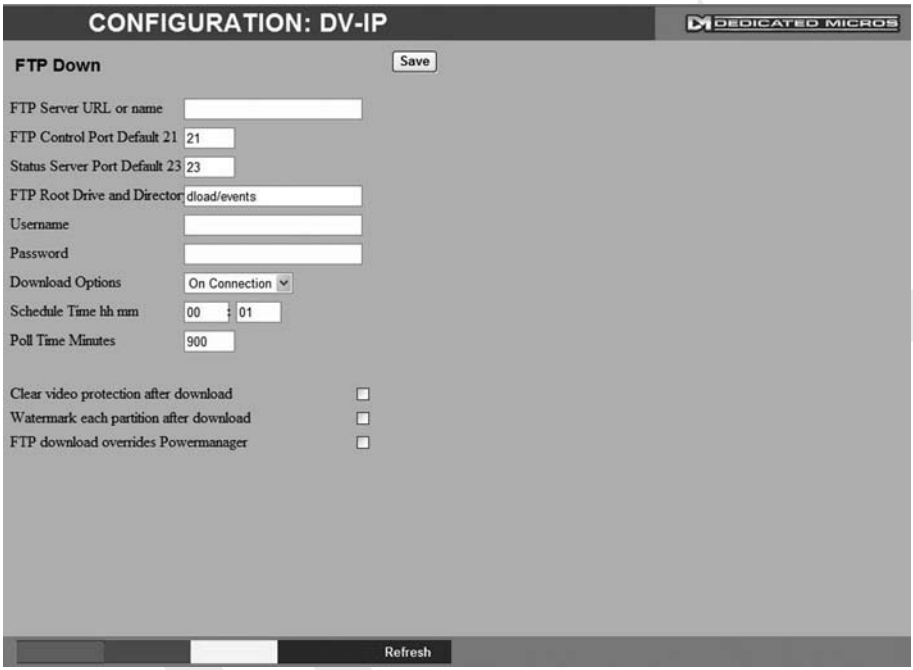
Web Cam

Any of the video inputs on the unit can be made available for transmission to a webserver via FTP. These images can then be incorporated into a web page and accessed via a standard web browser.

WEBCAM Server IP URL or name	This is the IP address, URL or Domain Name of the WEBCAM Server. Images will be uploaded from the unit to this server at specified time intervals.
WEBCAM Root Drive Directory	This is the main/root directory on the webcam server where the image directory will be located.
WEBCAM Image Directory	This directory will be created when the initial image is uploaded to the webcam server, it is the directory where all images will be saved on the server.
Image Filename Prefix	This is an identifier for images sent from this unit and will be stored as a prefix to the file name.
Username	If it is necessary to use an authentication process to access the webcam server, enter the relevant username here.
Password	If it is necessary to use an authentication process to access the webcam server, enter the relevant password here.
Update Interval	This is the minimum update interval between each image transmitted from the unit.
Camera	This allows individual video inputs to be enabled for uploadng to the webcam server.
Webcam Enable	The webcam function can be: ‘Always Enabled’, ‘Enabled when system SET’, ‘Enabled when system UNSET’ or ‘Disabled’.
Webcam Resolution	Select the webcam resolution settings to best match the monitor settings of the operator receiving the images.

FTP Download

The unit can archive images to a central FTP server. This could be on receipt of an alarm, activation of the Activity Detection or at a scheduled time to backup recorded video. Using FTP in a multi-unit application ensures that all files are stored in one central location for each of the units, offering efficient file management and easy review capabilities.



FTP Server IP URL or name	This is the IP address, URL or name of the FTP server the unit will connect to for FTP download of images.
FTP Control Port	The default port for FTP is port 21. If this port has already been allocated on the network, it is possible to identify and allocate an alternative port number.
Status Server Port Default	The default port for the Server Status function is port 23, if this port has already been allocated on the network, it is possible to identify and allocate an alternative port number.
FTP Root Drive and Directory	This is the directory where the images are to be stored, it is recommended that a name associated with the unit be used for ease of retrieval.
Username	If it is necessary to use an authentication process to access the FTP server, enter the relevant username here.
Password	If it is necessary to use an authentication process to access the FTP server, enter the relevant password here.
Download options	Select one of the following options from the drop down menu:
On Connection	This will automatically start the Archive download when the unit detects the archive destination is present.

	Scheduled	It is possible to force the unit to archive images at a scheduled time, enter a time to activate this function each day.
	Polled	This will set the unit to activate archive download at regular intervals, the time period is in minutes and is the time between the end of one archive download and the start of the next.
	Manual only	The archive process will commence when the user initiates the action.
Schedule time hh mm	If 'Scheduled' has been selected in Download Options, enter a time for the download to take place each day.	
Poll time Minutes	If 'Polled' has been selected in Download Options, enter the number of minutes which will elapse between the conclusion of one archive download and the start of the next.	
Clear video protection after download	This automatically clears the image protection from successfully downloaded images.	
Watermark each partition	This enables a watermark to be generated and stored in a text file downloaded with the video to the FTP server (for each image partition). This watermark is logged in the log file.	
FTP download overrides Powermanager	When selected, if the unit is in the process of an FTP download and the unit is sent into reset, the reset will be not begin under the FTP process has completed.	

Analytics & Text

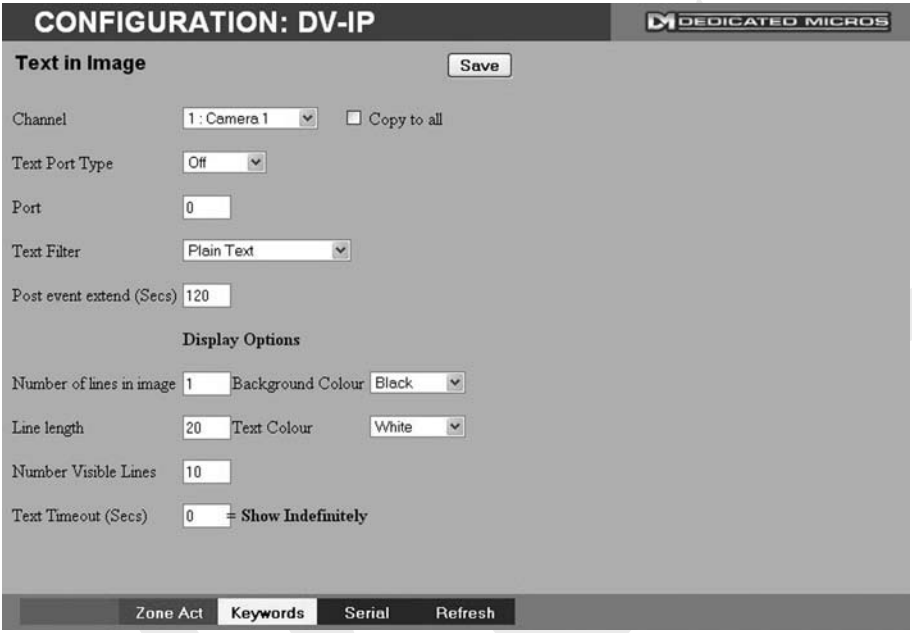
The Analytics and Text menus allow configuration of the units text in image and keywords functionality. Refer to the individual menus for further details.

The Text In Image page allows the DV-IP HD to integrate text data with recorded images i.e. a cash register with a camera positioned at that point of sale.

The Keyword page can be used in conjunction with the Text in Image function. Keywords can be entered which when detected, will trigger an alarm. Up to 30 keywords can be created.

Text In Image

It is possible to integrate the unit into a system were text information can be stored with relevant images for review. This would be most useful in a Retail or Finance application were text data originating from a cash register could be displayed in real time with the video images of the same Point of Sale.



Channel	Select the camera input for configuration from the drop down list.
Copy To All	Select to copy the current text in image settings to all camera channels.
Text Port Type	Select 'Off' to switch the function off or select 'Network to use the unit's Network port as an input source for Text in Image data. See 'Port' for details on using any of the serial ports for inputting text data.
Port	All four serial ports on the unit support the option for Text In Image, For serial transmission ensure one of the serial ports is configured appropriately. *Refer to 'Serial Ports'* . Select the configured port from the drop down list. Select; 0 for Serial port 1 1 for Serial port 2 2 for Serial port 3 3 for Serial port 4.
Text Filter	Select the text filter option from the drop down list. The options are: Plain text (default), RAW, EPSON, Laserjet, DM POS Receipt, DM POS Journal, TVC-1066

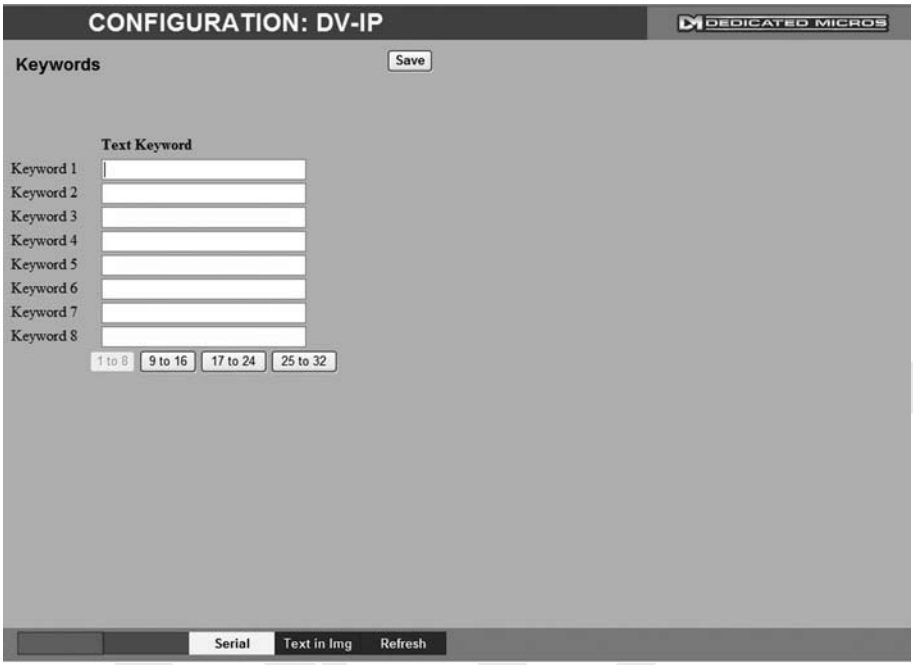
Post text event extension secs	When the unit has been configured for event trigger on receipt of text or a keyword, it is possible to define an extended time frame i .e. the event and any additional activity after the trigger will be captured and stored for the set period.

Note: *Any other text events that are received in this time from this camera will be treated as a single event.*

Number of lines in Image	This is the number of lines that will be displayed along with the relevant images. The default setting is 10 lines.
Line length	This identifies the length of the lines that will be stored with the image. The default setting is 80 characters i.e. typically the full screen.
Number of visible lines	To enable the text information to be viewed successfully, it is necessary to identify the number of visible lines.
Text Timeout (Secs)	This identifies the time period the text remains on screen and is stored within the image data. The timeout refers to the period between consecutive lines of data i.e. if text is continuously received the text will remain on screen with the image data. If no data is received within the set time then the text will be cleared for the selected camera i.e. between transactions. Alternatively all text can be displayed and stored with the image data for an indefinite period (enter 0).
Text Colour	The colour of the displayed text can be changed. Select from the drop down list.
Background Colour	A black background box appears by default around the text. It is possible to change the colour of this box. Select from the drop down list.

Keyword

This menu allows specific keywords to be configured and enabled as event triggers.



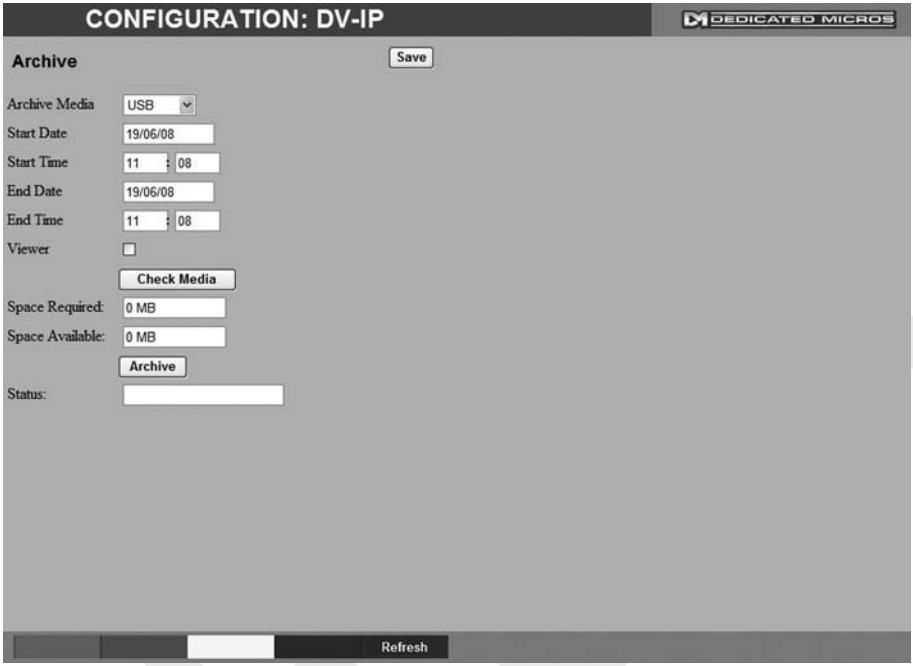
Text Keyword — The unit can be configured to react to defined keywords appearing in text data and treat them as alarm zone inputs. In turn this generates events in the event database. The advantage of this feature is that it allows the user to see exactly which keyword triggered an alarm in the event database. A total of 30 Keywords can be configured and each can be up to 20 characters in length.

Note: *Increasing the number of keywords can significantly increase the number of stored events.*

Note: *Refer to 'Text In Image' and 'Serial Ports' for further guidance on integrating text data.*

Archive

This menu allows Event database information to be downloaded to an inserted DVD/CD or connected USB media device.



Archive Media	Select to archive to either a DVD/CD or USB media device.
Start Date	Enter a start date for the event download.
Start Time	Enter a start time for the event download.
End Date	Enter an end date for the event download.
End Time	Enter an end time for the event download.
Viewer	When selected, the unit will add a Viewer program to the archive. This will ensure the downloaded video images can always be successfully viewed.
Check Media button	Selecting this option will display the space required (in megabytes) for the chosen event period to be fully downloaded. The space currently available on the CD/DVD or USB device is also shown.
Archive Space Required	Space required for archive download.
Archive Space Available	Space currently available on CD/DVD or USB device.
Archive button	Select this button to begin the Archive process.
Status	During Archiving, status messages will be displayed detailing the archive process.

Oracle Dome Configuration

If a camera channel has a Dedicated Micros Oracle dome camera connected, the Oracle Configuration menus can be used to view settings and establish Presets, Patrols and Privacy Masks. Refer to individual menus for further details.

The Status page details fundamental information regarding the status of the Oracle Dome i.e. the model type and the version of software/firmware installed.

The Presets page allows Preset positions to be configured and stored.

The Sectors page enables the cameras 360 degree field of view to be effectively split into 32 segments. These segments can be named and displayed via the On Screen Display (OSD).

The Patrols page allows camera patrol sequences to be established and configured. The Patrol feature uses established preset positions to automatically pan, tilt and zoom the camera in the selected sequence.

The Privacy Masks page allows privacy masking to be established and configured. The Privacy Mask feature can be used to 'blank out' sensitive or private areas which appear in the cameras field of view.

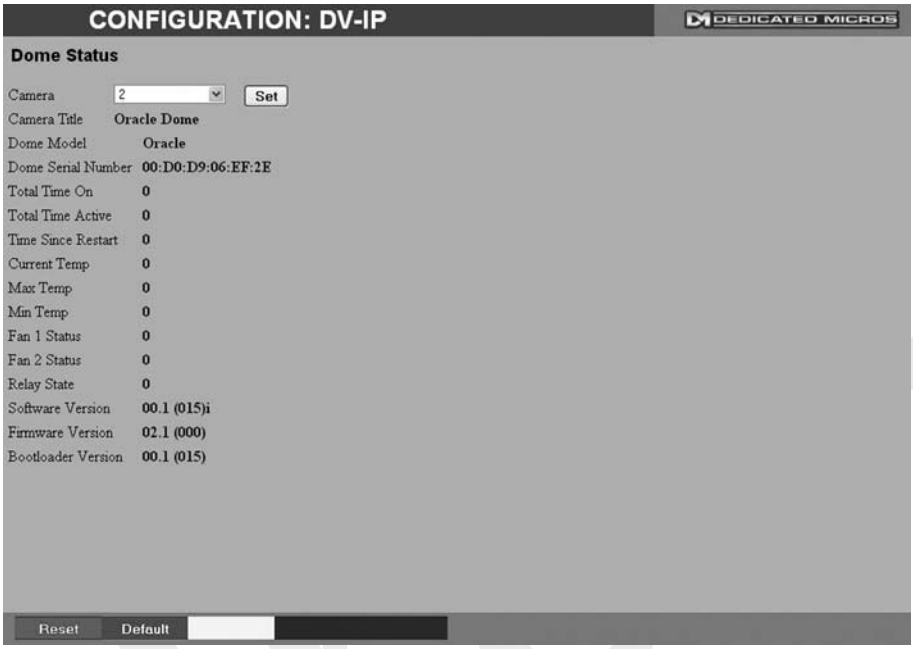
The OSD Settings page allows the Oracle Dome OSD (On Screen Display) information to be configured. This text will accompany displayed camera images in the Viewer menus.

The Camera Settings page enables features such as white balance and shutter speed to be configured.

The Event Settings page allows actions to be established and configured for the Oracle Dome camera following an alarm. A Home position can be established and the delay time set for what period of inactivity is required before the camera will be sent to its home position.

Status

This menu details information regarding the status of the Oracle Dome, notably the model type, current temperature and the version of software/firmware installed.



Camera	Select camera channel. The menu will only display successfully if the chosen camera channel has an Oracle Dome camera connected.

Note: *All subsequent Oracle Configuration menus will relate to the camera selected here. Camera selection is only possible via this Status menu.*

Camera Title	Title assigned to the selected camera channel.
Dome Model	Details the product model.
Dome Serial Number	Identifies the serial number of the specific camera.
Total Time On	Details the operational life time of the camera to date.
Total Time Active	Details the total time the unit has been active (in motion).
Time Since Restart	Details the time since the camera was last reset.
Current Temp	Details the current temperature of the camera unit.
Max Temp	Details the maximum temperature the camera unit has reached.
Min Temp	Details the minimum temperature the camera unit has reached.
Fan 1 Status	Details the operational status of installed Fan 1.
Fan 2 Status	Details the operational status of installed Fan 2.
Relay State	Details the operational status of the camera units relay.

Software Version	This identifies the version of software the camera unit is running.
Firmware Version	This identifies the version of firmware the camera unit is running.
Bootloader Version	This identifies the bootloader version of the camera unit is running.

Presets

This menu allows Preset positions to be configured and stored for the Oracle Dome camera.

Camera	Selected camera channel.
Camera Title	Title assigned to the selected camera channel.
Preset	Select a preset number (1 to 100).
Preset Name	Enter a recognisable name for the Preset (up to a maximum of 25 characters).
T	Use the 'T' button to zoom the camera view IN.
W	Use the 'W' button to zoom the camera view OUT.
Navigation Buttons	Use the four navigation buttons to position the camera view.
Save (Grey)	Select to save the entered preset title to the unit and the Oracle Dome camera memory.
Store Preset (Red)	Select this button to store the current preset position to the Oracle Dome camera's memory.
Goto Preset (Green)	Select this button to immediately send the camera to the currently stored preset position.
Delete Preset (Yellow)	Select this button to delete the currently displayed preset configuration.

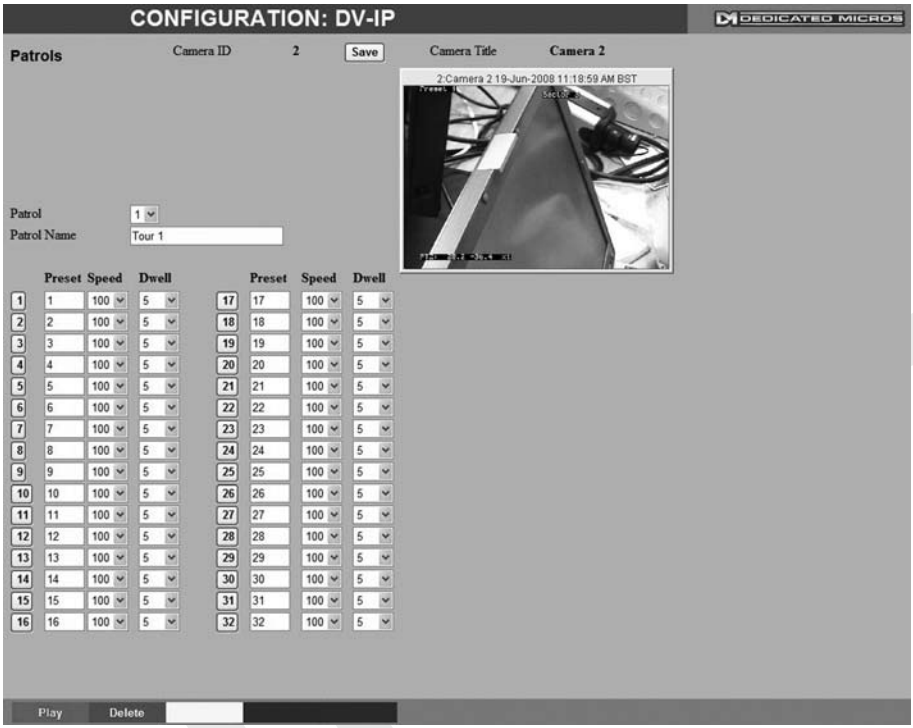
Sectors

This menu allows the Oracle Dome cameras 360 degree field of view to be split into 32 segments. These segments can be named and set to accompany the displayed camera image via the OSD menu. They can be used to aid an Operator in quickly identifying the current camera position.

Camera	Selected camera channel.
Camera Title	This is the title assigned to the selected camera channel.
Sector	Select from sector 1-32.
Sector Name	Enter a name for the selected sector (up to a maximum of 25 characters)..

Patrols

This menu allows camera patrol sequences to be established and configured for the Oracle Dome camera. The Patrol feature utilises established preset positions to automatically pan, tilt and zoom the camera in the selected sequence.



Camera	Selected camera channel.
Camera Title	Title assigned to the selected camera channel.
Patrol	Up to four Patrol sequences can be established.
Patrol Name	Enter a recognisable name for the Patrol.
1-32	Up to 32 individual positioning manoeuvres can be added to a Patrol.

Note: *Selecting one of the 1-32 buttons will send the camera to that Preset position.*

Preset	Select a pre-established Preset.
Speed	Select the Speed the Patrol will progress to the next Preset position (the speed can be set as a percentage of maximum capability).
Dwell	Select the Dwell time (in seconds) the Patrol will remain at this Preset position.
Save (Grey)	Select to store the preset sequence to the unit and the Oracle Dome camera memory.
Play (Red)	Select to activate (play) the current patrol sequence.

Privacy Masks

This menu allows Privacy Masks to be established and configured for the Oracle Dome camera. The Privacy Mask feature can be used to 'blank out' sensitive or private areas which appear in the cameras field of view.

Camera	Selected camera channel.
Camera Title	Title assigned to the selected camera channel.
Mask	Up to 24 separate masked areas can be created.
Mask Colour	The colour of the mask can be selected from the drop down list. The default is black.

Note: *Select 'Start New' (Red) to begin creation of a privacy area. A black rectangle will then be displayed superimposed across the camera view. It is recommended that the camera be navigated to the exact centre of the area requiring the privacy mask before pressing the 'Start New' button.*

T	Use the 'T' button to zoom the camera view IN.
W	Use the 'W' button to zoom the camera view OUT.
Navigation Buttons	Use the four navigation buttons to position the camera view.

Note: *When 'Start New' has been selected, the T, W and Navigation buttons can be used to set the size and shape of the Privacy Mask.*

Save (Grey)	Select to store the mask colour.
Start New (Red)	Select this option to begin creation of privacy mask.
Finish New (Green)	Select this option to finish creation of privacy mask.
Show (Yellow)	Select this option to show camera view with existing privacy mask displayed.
Delete (Blue)	Select this option to delete the currently displayed privacy mask.

OSD Settings

This menu allows the Oracle Dome OSD (On Screen Display) information to be configured. This text will accompany displayed camera images in the Viewer and on a local monitor.

Preset Title Position	Select desired position to locate the Preset Title information.
Sector Title Position	Select desired position to locate the Sector Title information.
PTZ Display Position	Select desired position to locate the PTZ Display information.
Alarm Name Position	Select desired position to locate the Alarm Name Position information. For all above functions, the available positions are; Top Left, Top Right, Bottom Left, Bottom Right and Off (No information displayed). All options are then split into three further sections; 1,2 and 3. This relates to the display line i.e. Top Left 1 would be the very top line, Top Left 2 would be the line below etc. This enables information to be 'stacked' in one segment of the screen.
Engineer Display	Toggle to switch the Engineer Display text On/Off. *This function is intended for future development.*
Save (Grey)	Select to store OSD Settings to the unit and the Oracle Dome camera memory.

Camera Settings

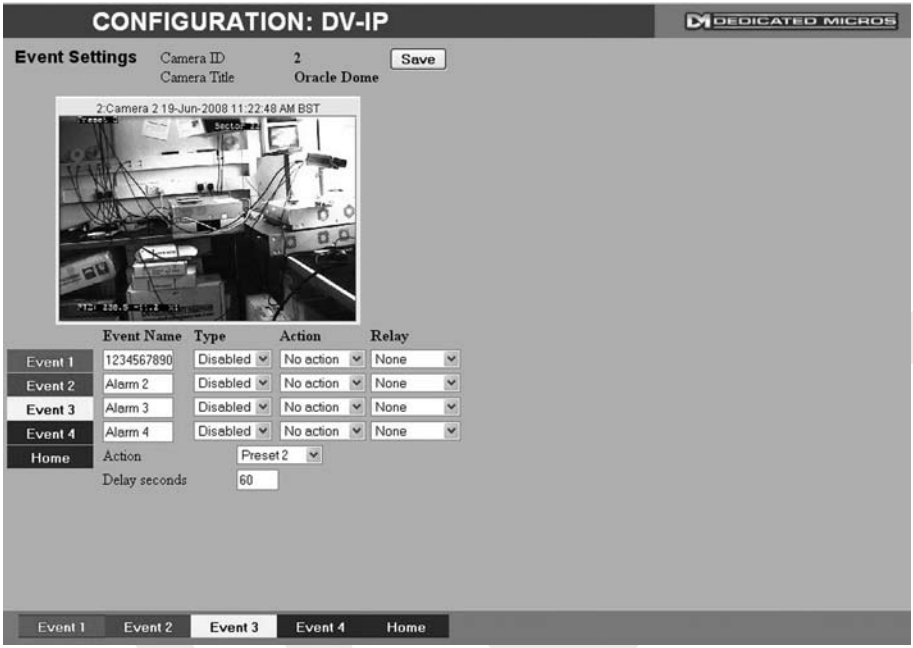
This menu allows settings for the Oracle Dome camera to be established and configured.

Camera	Selected camera channel.
Camera Title	Title assigned to the selected camera channel.
Backlight Comp	Select to activate Backlight Compensation. This feature compensates for back-lit scenes by enhancing objects which would previously have been in silhouette.
Auto Slow Shutter	The Oracle Domes auto slow shutter feature enables the camera to automatically decrease the shutter speed in low light settings to help maintain quality of displayed images.
Auto Focus	The Oracle Domes auto focus feature enables the camera to best focus on its current view. Select to activate.
Auto Flip	When the Oracle Domes auto flip feature is activated, it will rotate a camera 180 degrees when it reaches its maximum upper or lower extremity i.e pointing directly upwards or downwards.This enables a camera to continue a tilt manoeuvre i.e. if tilting in an upwards direction, when the camera is pointing directly up, it will rotate 180 degrees and begin tilting in a downwards direction. If unselected, a camera will stop when it reaches its maximum upper or lower extremity.
HyperD Mode	If the connected Oracle Dome camera is part of the non-wide dynamic range, select to activate the unique wide dynamic function.
Digital Zoom	Select to activate the Digital Zoom function e.g. the camera will zoom within the actual image.

Optical Zoom Limit	Select to limit the Oracle Domes optical zoom function. By default '100x' is selected and the camera can zoom to its maximum capabilities. The optical zoom function can be limited to between 75% and 100% magnification.
Coax Gain	If the Oracle Dome camera is connected to the unit via coaxial cabling. The coax signal can be improved by increasing the coaxial gain settings. Select a percentage figure between 1 and 100 until the optimum image quality is reached.
Coax Lift	If the Oracle Dome camera is connected to the unit via coaxial cabling. The coax signal can be improved by increasing the coaxial lift settings. Coaxial lift differs from coaxial gain as only the high end of the signal spectrum is effected. Select a percentage figure between 1 and 100 until the optimum image quality is reached.
White Balance	The Oracle Domes White Balance feature enables the camera to compensate for different lighting scenarios which can effect the colour quality of the displayed image. Select 'Auto' for the camera to auto-compensate for white balance depending on current view. Select 'Indoor' to permanently set for best results in an indoor setting. Select 'Outdoor' to permanently set for best results in an outdoor setting.
Exposure	The Oracle Domes Exposure setting can be set to maintain optimum contrast settings for the viewed image/camera location. Select 'Full Auto' for the camera to auto-compensate for best exposure settings depending on current view. Select 'Manual' to manually configure exposure settings. Select 'Shutter Priority' to manually enter the shutter speed.
Shutter Speed	If the Exposure feature is to be manually configured, enter the shutter speed settings.
ICR	The Oracle Dome camera is fitted with an Infrared Cut function, This feature helps remove excessive infrared light which can significantly reduce image quality. Select 'On' for this function to permanently be active, 'Off' to deactivate, or 'Auto' for the unit to only use the function when required. ICR switching can also be triggered in response to an alarm input. Ths allows a photocell sensor to be used to control when a camera should switch from normal to low light mode (for optimal performance). Alarms 1-4 can be selected as the controlling alarm input for this action, *refer to 'Alarm Settings-Alarm Input' for more information.*
UTP Boost	If the Oracle Dome camera is connected to the unit via twisted pair cabling. The UTP Boost function can be activated to improve signal strength.

Event Settings

This menu allows actions to be established and configured for the Oracle Dome camera following an alarm event. A Home position can be established for the camera and the delay time set for what period of inactivity is required before the camera will be sent to its home position.



Camera	Selected camera channel.
Camera Title	Displays the title assigned to the selected camera channel.
Event Name	If required, enter a specific name for the alarm event.
Type	Select the alarm type from EOL (End of Line), NC (Normally Closed), NO (Normally Open) or Disabled.
Action	Select a preset position or a patrol action for the camera upon alarm event.
Relay	Select an action for the relay. Select ‘Momentary’ for the relay to momentarily switch state. Select ‘Duration’ to switch relay status for the duration of the alarm.
Home (Grey)	Select to send the camera to its predetermined home position.
Action	Select a preset or patrol from the accompanying drop down list. This preset/patrol will now be set as the cameras ‘home’ position.
Delay	Select the time (in seconds) for which the camera is inactive i.e. no operator input, before returnng to its home positon.
Save (Grey)	Select to store Event Settings to the unit and the Oracle Dome camera memory.

Unit Operation

The DV-IP HD unit can be operated via the Viewer menus and the enclosed IR Remote Control, the optional keyboard or with a USB mouse. They can also be viewed and accessed remotely via the web pages and the 'Go To Viewer' menu option.

Operating the Viewer

Navigation is via a colour coded softkey system. The coloured menu provides an intuitive approach to operator and installer use. The coloured keys on the IR Remote Control correspond to the menu options displayed on screen.

Note: *The screen images shown throughout this section are those displayed on a local monitor. If viewing remotely via the web pages, the menu layout will differ slightly.*

The function of the keys will change according to whether the unit is in Live or Playback mode.

Below are described the available Viewer menu pages.

View Control

Red	Full	Show currently selected camera full screen, and will connect to the next connected camera on the selected system.
Green	Quad	Displays four images on-screen, putting the currently selected camera in the top left hand corner of the four, and will increment all cameras by one if pressed again i.e. if cam 1 is shown top left, cam 2 top right etc. then the views will increment to cam 2 top left, cam 3 top right etc.

Note: *When a camera button is pressed to select a new camera, the new selection will be displayed in the top left hand corner of the display. The next three connected cameras will be displayed in the following three positions.*

Yellow	Multi	Display nine images on-screen, putting the currently selected camera in the top left corner, followed by the next eight cameras and will increment all cameras by one if pressed again i.e. if cam 1 is shown top left, cam 2 adjacent etc then the views will increment to cam 2 top left, cam 3 adjacent etc.

Note: *For optimal performance, it is recomended that the multiscreen view be matched to the number of connected cameras i.e. if four cameras are connected, select 'Quad'.*

Blue	Map	Displays a site map (if configured for the server being accessed) with 'hotspots' showing camera locations. A camera can be viewed by selecting the corresponding hotspot on the map.
Purple	Next	Opens the next page of the Viewer menu.

Quick Camera Selection

When viewing via a local monitor, a right click of the Serial Mouse (when viewing live images) will display a drop down menu. This menu will show all available cameras. Select a camera to display full screen.

Note: *Camera selection via this feature is only temporary. If Quad or Multiscreen view is selected, the camera selected via the Quick Start drop down menu **will not** be shown in the top left corner of the display.*

Video Control

Red	II	Freezes current video display.
Green	<<	Rewinds current video.
Yellow	>	Plays from current position.
Blue	>>	Fast forwards video up to current recording position.
Purple	Next	Opens the next page of the Viewer menu.

Telemetry Camera Options

*The Telemetry camera page allows Oracle Dome cameras to be controlled directly via the **Point&**go feature and be sent to preset positions.*
The eZoom feature allows navigation within video image i.e. the image from the camera is enlarged and the operator has the ability to pan around the image. This feature is best utilised with high resolution cameras, giving the operator the ability to electronically zoom into an area. The unit will request a higher resolution image of the zoomed area, to show increased detail.
The functionality available will depend on the type of camera being viewed. The unit will recognise which camera type is being accessed and display relevant symbols in the top right of the screen (when viewing via a local monitor).

Red	Preset	If Preset positions have been established for the PTZ camera, select the Preset option and enter a preset number. *Refer to the 'PTZ Profile menu' for further details on establishing preset positions*.
Green	PTZ/ePTZ	Switches between PTZ and ePTZ mode. In ePTZ mode, it is possible to zoom in/out of and scroll around the image (the camera itself is not being controlled). PTZ mode will control an Oracle Dome camera via the Point&*go* feature. R*efer to the 'Point&go' section* for further information.
Yellow	Aux	Activates the camera Auxiliary controls e.g. wash, wipe etc. Press the Aux button followed by the relevant Keyboard numeric button (if using optional connected Keyboard).
Blue	Prog	Opens the Preset programming menu. *Refer to 'PTZ Profile' menu*.
Purple	Next	Opens the next page of the Viewer menu.

Note: *The above menu options will only be available when viewing a PTZ camera in Live mode.*

Point&*go*

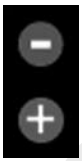
Point&*go* enables an Oracle Dome camera to be controlled directly via the mouse. Click anywhere on the displayed image and the Oracle dome camera will centre on that point i.e. to pan the camera to the right, click on the right hand side of the displayed image. The Oracle dome will pan and set the clicked point as the centre of the new image.

Note: *To use **Point&**go, PTZ mode must be selected (if available).*

Note: *Oracle dome cameras can also be controlled using the Joystick / Directional Control Buttons on the DM KBC1 / KBC2 Keyboards*

Camera Symbols

To access the modes featured below, click on the camera symbols when they are shown in the top right corner of the display. The icons displayed will depend on the camera type being accessed.

Symbol	Mode/Camera Type	Options Available
	Fixed Camera eZoom	Use this option to zoom into areas of the image. The camera itself is not being directly controlled. Use the mouse to select a point on the image. Use the + and - symbols illustrated below to zoom in / out.
	ePTZ mode	Use this option to zoom into areas of the image. The camera itself is not being directly controlled. Use the cursor to select a point on the image. Use the + and - symbols illustrated below to zoom in / out.
	PTZ Mode	Use this option to directly control an Oracle dome camera via the Point&go feature. Use the + and - buttons shown below to zoom the camera in / out. The Joystick / Directional Control Buttons on the DM KBC1 / KBC2 Keyboards can also be used to zoom in/out
	Zoom IN / OUT	When displayed, use these buttons to zoom in / out of the displayed image or by controlling the camera (depending on mode selected).

Note: The above camera symbols will only be displayed if viewing via a local monitor and not via the web pages.

PTZ Program Option

The Program page allows preset settings for PTZ cameras to be established and an 'Origin' base position established for a camera.

Note: *This page will not be available for all cameras.*

Red	Store	Used to save the current camera view as a Preset for that camera. Press this button then a preset position (using the number keys on the IR Remote Control or optional Keyboard if viewing via a local monitor). To re-send the camera to this position, select the camera, then press Next -> Preset -> (preset number).

Note: *When entering a new preset, any previous preset assigned to that number (for the same camera) will be overwritten.*

Green	Dome Menu	Select to display menu pages displaying information relevant to the connected camera. Select the Dome Menu (Green) again to cycle through available menus.
Yellow	Select	This option will send the camera to the stored 'Preset1' position.
Blue	Set Origin	The Origin option allows a base position to be established for the Oracle dome camera. The camera will register this position as zero degrees. Any command that sends the camera to a coordinate will use this origin as its starting point. *Refer to 'Console Settings-Map Config -Hotspot Origin' for more information)*.

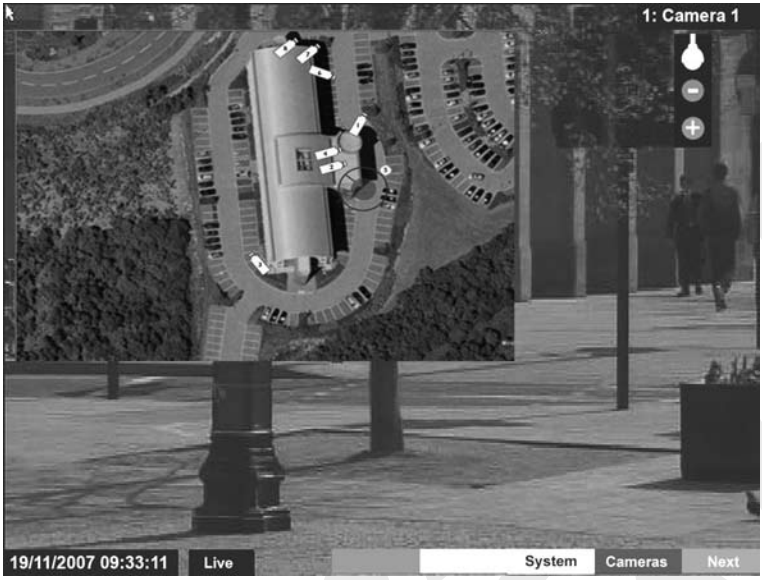
Note: *This option is only available for Oracle dome cameras.*

Purple	Next	Opens the next page of the Viewer menu.

Note: *These menu options will only be available when viewing a PTZ camera in Live mode.*

Map Options

The Map page allows access to available System and Cameras via the displayed maps and hotspots



Yellow	System	Displays a map showing available systems. If using the default numeric selector, choose a number to access the correspondingly numbered system. The default numeric selector map can be replaced by a gif/jpeg image. The image can include 'hotspots' which link to available systems. Systems are then selected via the hotspots. *Refer to 'Console-Map Config' for further details on creating System Maps*
Blue	Cameras	Displays a map showing available cameras. If using the default numeric selector, choose a number to access the correspondingly numbered camera. The default numeric selector map can be replaced by a gif/jpeg image. The image can include 'hotspots' which link to available cameras. Cameras are then selected via the hotspots. *Refer to 'Console-Map Config' for further details on creating Camera Maps.*

Note: *For information on creating System Selection and Camera Selection maps. Refer to the 'Console-Map Config' section for further information.*

Selection Page

The Selection page allows access to various image and event playback functions.

Red	Play	Switches the selected camera(s) shown onscreen into Play mode.
Green	Goto	Opens the *Video Timeline* menu.
Yellow	Event	Displays the *Events* page.
Blue	Setup	Opens the units embedded menu pages to allow the configuration settings to be altered.
Purple	Back	Returns to the previous page of the Viewer menu.

Timeline Navigation

The Timeline Navigation page and the accompanying Video Timeline feature allows quick and easy investigation of recorded video data. The Goto button opens the initial Timeline Navigation page.

Softkeys

The coloured softkey options will change depending on the scale used to review the recorded images. In the above example:

- Selecting the 15 Mins (Red) button will change the softkey options to 15 minute segments i.e. the user can progress 15 mins from/prior to the current playback time.
- Selecting the -Hour button (Green) will progress the video to a point exactly one hour prior to the current playback time.
- Selecting the +Hour button (Yellow) will progress the video to a point exactly one hour in advance of the current playback time.
- Selecting the 4Hrs (Blue) button will change the softkey options to four hour segments i.e. the user can progress four hours from/prior the current playback time.
- Selecting the Exit (Purple) button will always exit the Timeline Navigation menu.

Note: *Depending on the scale used to review the video i.e. Seconds, Minutes, Hours, or Days; the above softkey options will differ, however the same intuitive principles remain.*

Video Timeline

The Video Timeline allows intuitive, rapid navigation within recorded video. To aid navigation, the timeline can be set to display periods ranging from 15 seconds to four weeks. The timeline can be clicked anywhere in the scale to instantly play recorded images from that point.

Date/Time Display (Grey) — Shows the currently selected date/time.

Note: *The Date/Time Display shows the last time selected via the timeline. During playback, the Date/Time Display remains static while the 'running' time is shown in the bottom left corner of the playback image.*

Timeline 

The timeline allows navigation from the time and date currently shown in the Date/Time Display window. The scale changes to correspond to the time period chosen for investigation i.e. if a scale of one hour is selected it will be possible to move up to one hour prior, or one hour in advance of the displayed time (unless that selected time has not been recorded yet). For example, with a scale of one hour, click '10' on the left side of the timeline to play video from 10 minutes prior to the Date/Time Display. To advance in time, click on the right side of the timeline.

Time Scale Options

- 15 seconds
- 1 minute
- 15 minutes
- 1 hour
- 4 hours
- 1 day
- 1 week
- 4 week

Change Scale

Utilise the buttons shown below to change the scale.

Note: *The coloured softkey buttons can also be used to alter the scale. (See Softkey Section for further details).*

Decrease Scale button (Red) 

Decreases the scale of the displayed timeline by one step i.e. if the scale is currently one hour, selecting this button will reduce it to 15 minutes, selecting it again will reduce it to one minute etc.

Increase Scale button (Blue) 

Increases the scale of the timeline by one step i.e. if the scale is currently one hour, selecting this button will increase it to four hours, selecting it again will increase it to one day etc.

Left Navigation Arrow (Green)

Selecting the left navigation arrow will play recorded images from the maximum prior time available via the current timeline i.e. if a one hour time scale is displayed, selecting the Left Navigation Arrow will play video from one hour prior. This can also be selected via the Green softkey button.

Right Navigation Arrow (Yellow)

Selecting the right navigation arrow will play recorded images from the maximum future time available via the current timeline i.e. if a one hour time scale is displayed, selecting the Right Navigation Arrow will play video from one hour in advance. This can also be selected via the Yellow softkey button.

Event Page

The Event feature allows quick and easy navigation of recorded events data. The Event button opens the initial Event page which shows the last twenty events from the server being viewed. If the Event pages are called in a quad or multi screen view, the server providing the image in the upper left corner of the page will be accessed. This image will then be displayed full screen.

The Event list is shown as a box in the upper left corner of the video image. Events can be selected and viewed from this box using the mouse. Use the Yellow softkey button to display the previous event or the Blue softkey button to display the next event.

The screen displays the date, time and relevant server details for the event shown in the dialog box. A maximum of twenty events can be stored from connected devices. Use the Yellow and Green navigation buttons to move through the saved events.

Red	Play	Plays the event and displays the Video Controls toolbar.
Green	Live	Returns to Live video from the currently selected camera.
Yellow	Event-	Opens the previous event.
Blue	Event+	Opens the next event.
Purple	Next	Opens the Play menu for the currently displayed event.

Archive Selection Page

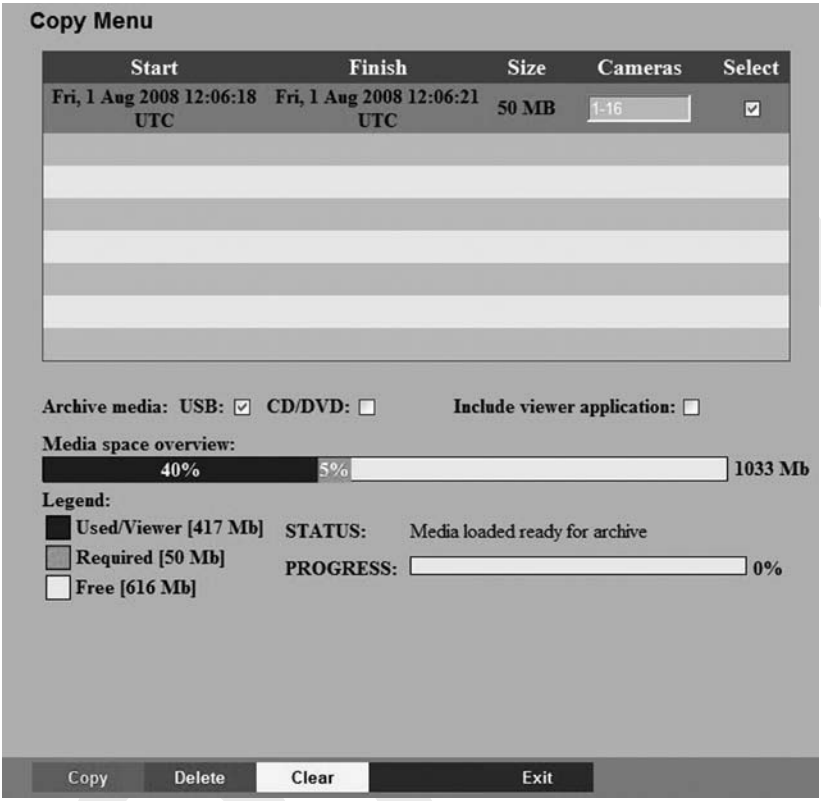
Images and events can be marked and added to the Copy Event List. The Viewer menu can also be set to 'sequence' through connected cameras and display images in sequential order.

Copy Event List			
1:	1 Aug 2008 10:10:22	->	1 Aug 2008 10:14:57
2:	---	->	---
3:	---	->	---
4:	---	->	---
5:	---	->	---
6:	---	->	---
7:	---	->	---
8:	---	->	---

Red	Mark	In Playback mode, select 'Mark' to establish a start point for archiving purpose. The Copy Event List box will be displayed (see above) detailing the start date and time of the archive. Select 'Mark' again to establish an end time for the archive. A maximum of eight copy periods can be added to the Copy Event List.
Green	Clear	In Playback mode, select Clear to remove the last start or end mark added to the Copy Event List.
Yellow	Archive	Opens the *Archive* menu.
Blue	Seq On/Off	Select 'Seq On' to display images from all connected cameras in a sequential order.
Purple	Next	Opens the Play menu for the currently displayed camera.

Copy Menu

Images and events can be copied to CD/DVD or USB Media for remote reviewing away from the unit (for evidential or monitoring purposes). The Copy Menu can be accessed via the 'Archive' (Yellow) button on the Archive Selection page.



The Copy menu will display the Archive periods added to the Copy Event List. The Start and Finish date/times will be shown along with the estimated size of the download. Individual cameras can be added in the format 1,3,5 etc; or a range of cameras can be entered i.e.1-16. To add a chosen event to the download, tick the Select checkbox.

Archive Media	Select the media device (USB or CD/DVD) for archive purposes.
Include Viewer Application	Select whether the application required to view archived data is included in the download.
Used (Blue)	Displays the space (as a percentage) already used on the chosen media device.
Required (Green)	Displays the space (as a percentage) required to download the selected archive(s).
Free (White)	Displays the space (as a percentage) that will remain following the download.
Status	Displays messages relevant to the archive process i.e. 'Archive In Progress'.
Progress	Displays the progress of the current archive (as a percentage of completion).

To Copy Events/Images to a USB Device

1. Insert a USB Device into the USB port on the front of the unit.
2. Select USB from the Archive Media checkbox.
3 Select the Copy option (Red) to start archive.
4. Selected items are then saved to the USB device.
5. The USB export progress is displayed as a %. On completion the status will read ‘Archive Complete’.

To Copy Events/Images to a CD/DVD

1. Insert a CD/DVD Device into the CD/DVD drive on the front of the unit.
2. Select CD/DVD from the Archive Media checkbox.
3 Select the Copy option (Red) to start archive.
4. Selected items are then saved to the CD/DVD.
5. The CD/DVD export status is displayed as a %. On completion the status will read ‘Archive Complete’.

U

Using the IR Remote Control

By default, the I.R. Remote Control will be in "DVR" mode. If the unit does not respond to commands from the Remote Control, pressing the "DVR" button will always return the Remote Control to "DVR" mode. Pressing the "TV" button will switch to "TV" mode and send codes understood by common television sets (when preprogrammed to do so: see Appendix B).

Pressing any of the coloured Softkeys at any time will display the 'coloured' keys first and then access the equivalent 'coloured' option displayed in the menus.

For a description of the button commands available on the IR Remote Control, refer to the

'IR Remote Control' section.

Using the optional Keyboards (DM/KBC1 & DM/KBC2)

The unit can also be controlled using an optional Dedicated Micros keyboard. This is connected via the KBD connector on the rear of the DV-IP HD and provides the same control functions as the I.R Remote Control. The following keyboards are supported:

DM/KBC1 Keyboard

DM/KBC2 Keyboard

Note: *Not all buttons detailed below are relevant for both models of keyboard.*

Key	Function
	Displays the Softkeys menu if not currently on screen. Selects the colour coded item displayed on screen.
	Toggles between Live and Playback modes
	Removes the Softkeys from view if they are on screen. Toggles the visibility of on-screen text and status bar if no Softkeys are on screen. (For future use).
	For future use
	Displays the Softkey options for the Audio functions (for future use).
	Forces all the cameras to record in alarm mode for three minutes, or until the button is pressed again.
	Displays the archiving options
	Live mode - No functionality Play mode - Starts fast forwarding from play time. Rewind mode - Starts fast forwarding from play time. Pause mode - Steps forward one frame

Live mode - Puts unit into reverse playback from current time
Play mode - Starts rewinding from play time.
Rewind mode - Increases the rewind speed.
Pause mode - Steps back one frame.

Live mode - Freezes the current display window
Play mode - Pauses video in playback.

Live mode - puts the unit into playback using the last stored playback time

Displays the Events list menu.

Opens the GOTO menu

For future use.

Toggles control from Main to Spot monitor.

Allows the numeric selection of a camera (numeric selection defaults to camera selection).

Allows entry of camera and Preset and numbers.

For future use.

For future use.

Triggers the wash function on a telemetry camera.

Triggers the wipe function on a telemetry camera.

Switches on the lamp on a telemetry camera

Adjusts the focus to objects nearer the camera.

Adjusts the focus to objects further from the camera.

Closes the Iris on a Telemetry camera.

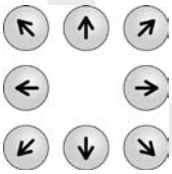
Opens the Iris on a Telemetry camera.

Zooms in on a telemetry camera and also provides electronic zoom out.

Zooms out on a telemetry camera and also provides electronic zoom in.

Sends a Patrol command to a telemetry camera.

Instructs the selected telemetry camera to automatically pan (on cameras that support this function).



Used as menu and on-screen navigation keys
Pan and tilt control for telemetry cameras

In Play mode: Used to Mark Start/End positions.
In Live mode: Displays the Copy List and archive controls.

Exits menus.

Softkey Guidance

The IR Remote Control and supported Keyboards have a common user interface to control the DV-IP HD. In addition to the direct action keys (rewind, fast forward etc.) there are coloured Softkeys that are context sensitive and enable rapid access to required functions.

To bring up context sensitive Softkey functions at any time, press any of the coloured keys on the Keyboard or IR Remote Control.

To select cameras

Cameras can be selected either by using the numeric number buttons on the keypad or via the Up/Down camera CH key on the IR Remote Control. For numeric entries that require two digit entry, ensure both digits are entered within the one second time out.

Electronic Zoom

If the DVR is in Live or Playback mode, pressing the Zoom IN button will Zoom (x2) into the image. Once 'zoomed in', it is possible to navigate within the image using the Directional buttons.

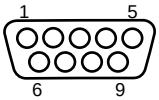
Note: *Electronic zoom is possible on Dome cameras, however the unit must be in Live or Replay mode (not Telemetry mode - TELEM [displayed in the status bar]).*

Appendix A

Alarm & Relay Pin Outs

Using Serial Ports

It is possible to connect a variety of telemetry cameras to the unit, use the following table as a guide to the serial port connections.



RS485 Connectivity (2 wire) (Serial 3, 4)

Pin	Description
1	RS485 + (A)
9	RS485 - (B)
5	Shield (GND)

RS232 Connectivity (Serial 1, 2)

Pin	Description	Desc
1	Data Carrier Detect	DCD
2	Receive Data	RX
3	Transmit Data	TX
4	Data Terminal Ready	DTR
5	Ground	GND
6	Data Set Ready	DSR
7	Ready to Send	RTS
8	Clear to Send	CTS
9	Ring Indicate	RI

RS232 Connectivity (Serial 3, 4)

Pin	Description	Desc
2	Receive Data	RX
3	Transmit Data	TX
5	Ground	GND
7	Ready to Send	RTS
8	Clear to Send	CTS

Appendix B

Using the Keyboard/RC Interface Control To Control A Television Set

To use a supported Keyboard/ or IR Remote Control as a common television remote handset, it is necessary to input a code specific to the relevant television. Below are detailed the procedures to follow and a listing of the codes associated with common television brands.

How to Program The DV-IP HD IR Remote Control

1. Turn the TV you wish to control ON.
2. Press and hold the TV button on the Keyboard/RC Interface.
3. Press and hold the PANIC button until the LED on the Keyboard/RC Interface Control turns ON.
4. Release both buttons, the LED will stay ON.
5. Press and release the PLAY button.
6. Enter the required code (see list below and overleaf). Please note that up to 10 codes can be entered at any one time. For many makes of television it will be necessary to try several codes before the user is able to pinpoint the relevant one for the TV model.
7. Press PLAY. The IR Remote Control will search the stored codes. Note that if more than one code has been entered, it will be necessary to press the REV button to cycle individually through the stored codes. To view which code has successfully accessed the TV, simply note when the TV turns OFF.
8. Press STOP. The LED turns OFF and the code is stored.

Codes Relevant To Common Televisions.

TV Brand	Code(s)
Alba	2003/2009/2010/2021/2022/2041/2045/2052/2093/2255/2278/2293/2306/2492/2497/2498/2521/2527/2541/2545/2564/2605/2609/2614/2618/2622/2631/2633/2636
Amstrad	2002/2009/2010/2012/2024/2045/2492/2498/2515/2515/2515/2521/2540/2605/2609/2610/2618/2621/2633
Baird	2068/2081/2504/2517/2518/2618
Bang & Olufsen	2000
Bauer	2617
Beko	2007/2027/2052/2180/2191/2228/2242/2269/2498/2588/2589/2616/2637
Binatone	2003
Blaukpunkt	2008/2079/2519/2625 /2636
Brandt	2029/2033/2034/2075/2076/2081/2117/2174/2272/2332/2535/2536
Brother	2610
Daewoo	2003/2009/2037/2039/2060/2070/2105/2128/2148/2224/2492/2498/2521/2551/2565/2566/2570/2592/2605/2609/2633/2636
Ferguson	2028/2029/2036/2038/2050/2068/2076/2089/2093/2143/2173/2517/2518/2536/2560/2618/2619/2620/2625/2627/2637
Goldline	2498
Goldstar	2003/2009/2011/2037/2053/2059/2077/2093/2094/2492/2498/2527/2542/2605/2608/2616/2624/2629/2632/2636/2637
Goodmans	2002/2004/2009/2021/2022/2037/2045/2059/2068/2070/2076/2093/2259/2369/2492/2496/2497/2498/2504/2516/2548/2551/2554 2605/2609/2610/2614/ 2633/2635/2636
Hitachi	2003/2004/2014/2017/2021/2026/2031/2033/2034/2035/2054/2081/2082/2083/2169/2175/2199/2201/2202/ 2253/2260/2380/2385/2396/2414/2426/2427/2441/2448 /2450/2469/2470/2471/2472/2497/2498/2499/2500/2504/2509/2512/2522/2524/2549/2551/2575/579/608/620/627/629/636

JVC	2021/2037/2045/2050/2210/2216/2239/2240/2267/2276/2280/2282/2298/2333/2377/2397/2497/2502/2507/ 2517/2518/2521/ 2557/2563/ 2572/2577/2597/2609/2615/2616/2622/2636/2646
LG	2003/2009/2011/2037/2053 /2055/2059/2077/2084/2093/2094/2195/2200/2237 /2245/2261/2262/2263/2274/2287/2312/2330/2355/2356/2359/2364/2381/2389 /2451/2452/2492/2498/2527/2542/2580/2581/2582/2594/2596/2598/2600/2605/ 2608/2616/2645/2647/649
Panasonic	2042/2043/2044/2063/2074/2085/2086/2100/2107/2114/2123/2130/2134/2136/2138/2168/2187/2226/2252/2324/2357/2361/2388/2408/2415/2416/2428/2429/2473/2474/2475/2498/2511/2520/2523/2528/2562/2578/2585/2599/ 2601/2603/2620/2636/640/ 648
Philips	2000/2003/2031/2032/2037/2055/2056/2068/2070/2087/2093/2108/2109/2112/2115/2119/2122/2126/2129/2131/2132/2133/2141/2146/2147/2149/2150 2152/2154/2155/2157/2163/2170/2182/2183/2190/2192/2197/2206/2214/2215/2229/2231/2246/2248 2249/251/254/257/264/275/277/283/291/297/323 /338/339/343 /383/384/393/398/436/453/454/476/477/478/479/480/481/495/498/499/554/567/568573/604/623/624 /627/629/ 635 /636/637/643/644
Pioneer	2029/2037/2081 /2093/2379/2382/2387/2390/2392/2444/2449/2498/2584/2627/26 /2637
Sanyo	2003/2004/2006/2014/2016/2021/2023/2024/2025/2030/2032/2076/2088/2161/2220/2223/2290/2292/2401/2442/2443/2492/2494/2497/2501/2504/2513/2532/2605/ 2627/2629/2633
Sharp	2001/2005/2023/2040/2101/2102/2127/2139/2160/2162/2186/2193/2207/2219/2335/2352/2354/2360/2365/2366/2368/2372/2373/2376/2403/2407/2417/2422/2423 /2424/2430/2431/2432/2433/2434/2455/2456/2457/2458/2459/2460/2461/2462/2463/2483/497/502/506/513/533
Sony	2004/2009/2021/2023/2024/2047/2067/2076/2078/2091/2097/2098/2110/2111/2118/2121/2125/2135 /2142/2166/2177/2185/2204/2234/2236/2326/2344 /2345/2346/2349/2363/ 2400/2402/2404/2405/2410 /2413/2418/2420/2439//2493/ 2494/2497/2508 /2569/2571/587/602/603/607/639
Technics	2043
Toshiba	2015/2021/2051 /2069/2090/2103/2137/2158/2159/2165/2179/2188/2194 /2208/2211/2213/2217 /2218/2222/2243/2244/2250/2271/2284/2288/2294 /2303 /2304/2313/2318/2319/2320/2321/2322/2328/2347/2350/2370/2375/2394/2409/2421/2435/2437/2440/2465/466/467/485/487/489/490/496/497/503/508 /526/574/54/ 591/595/606/607/632/642

Appendix C

Unit Specification

LANGUAGES

Currently: English. For Future Development: French, Italian, German & Spanish.

CAMERAS

8, 16 and 32 camera inputs available. Auto detection on power up. Looping BNC connectors are provided for each camera input on all input variants.

Option to view Live or Replay all or selected cameras without affecting recording.

MONITOR VIEWING

Main monitor:

Full screen, picture in picture, quad viewing and multiscreen.

Mon A: Composite video BNC connector and S-Video.

Spot monitor:

Full screen, sequence.

Mon B: Composite video BNC connector.

HDMI: High-Definition Multimedia Interface compatible

ACTIVITY DETECTION

Each activity detection will switch the selected camera from normal record profile to alarm record profile. This feature can also; log the event, activate a relay, trigger a sounder, switch camera or link to an alarm.

Individual configurable alarm responses include; move camera to preset, activate a relay, remote alarm reporting, email on alarm, log event, switch camera, activate sounder.

ALARMS & RELAYS

17 normally open/closed tamper proof alarm inputs via back panel.

Keyswitch input to select set/unset.

5 relay outputs.

AUDIO

The user has the option to record and play back audio through the unit in real time. Recorded with images, audio can be played back directly from the unit via powered external speakers.

Audio output for on site PA/Challenge.

Connections:

Line in: 1V pk-pk, RCA phono socket.

Line out: 1V pk-pk, RCA phono socket.

SEARCH AND PLAYBACK

- Frame advance/rewind, fast picture search and pause keys.
- Event list, including event list filter with unique quadrant preview facility.
- Video Timeline.
- Playback in quad, multiscreen, picture in picture and full screen.

Multi*Mode* RECORDING

Multi*Mode* recording gives you the ability to set different record rates, resolutions and compression algorithms (MPEG-4/JPEG) across scheduled, normal and alarm modes dynamically on individual cameras.

RECORDING FROM

Playback and record to hard disk simultaneously.

Alarmed or manually selected images can be protected from being overwritten.

Timed expiry option allows images to be held for a selected number of days.

EVENT COPYING

Event sequences and user defined recorded sequences can be saved to a CD or DVD via the integrated CD-writer / DVD-writer or to an external flash drive through the USB port.

TEXT SUPPORT

Through the inclusion of Text Support, the DV-IP HDServer can search captured transaction data for specific goods purchased, transaction numbers, credit card references, keywords etc. and jump straight to the associated video sequence. Till interfaces are available for a wide range of till systems.

NETWORKING CAPABILITIES

A standard Ethernet connection allows live and recorded viewing on a networked PC using DM's NetVu ObserVer software. Web pages are available for configuration and live viewing using a standard internet browser.

I.R REMOTE CONTROL

Offering full system control.

OPTIONAL KEYBOARDS

Supports Dedicated Micros keyboards:

DMKBC1

DMKBC2

NetVu Console

TELEMETRY

Built-in RS485/Twisted pair protocols provide direct control of the numerous domes including but not limited to the following:

Coax

- BBV
- BBV RX100
- Pelco Spectra

Serial

- Dedicated Micros Oracle Dome
- AD Matrix/AD 168-Matrix
- BBV RE485 StarCard
- Bosch/Philips G3
- Dennard/Dennard C
- Ernitec
- JVC TK-C675BE, TK-C676 & TK-C553E
- MarkMercer
- Panasonic WV-CS600/WV-CS850
- Pelco C
- Philips/Philips 232
- Samsung SCC-641
- Sensormatic SpeedDome IV & SpeedDome V
- Ultrak Ultradome KD6
- Vista Power Dome

COLOUR RESOLUTION

Sampling rate: 13.5 MHz to CCIR 601.

Number of pixels: PAL 704h x 256v 288.

NTSC 704h x 240v.

16.8 million colours 256 levels of grey, 8-bit luma.

COMPRESSION

JPEG & MPEG-4 format files.

4CIF, 2CIF, CIF & QCIF resolution.

User definable file size and bit rate.

DV-IP HDSERVER DATA

Serial Ports: 4 - 2 xRS232 (9 wire) or (3 wire), 2 x RS232 (3 wire), RS485.

Ethernet: 1x Ethernet RJ-45 10/100 Ethernet connection.

USB: 3 x USB 2.0 Connector (1 positioned on the front panel).

TEMPERATURE RANGE

5 - 40°C

RELATIVE HUMIDITY

10% - 85% Non-condensing.

UNIT DIMENSIONS

447mm deep, 440mm wide, 89mm high.

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