network video

TransVu
Installation & Operation Guide

NetVu CONNECTED

Contents

Introduction 3
Important Safeguards 7
Installing the Unit 9
Accessing & Configuring the Unit 18
Navigating The Configuration Menus 22
System Settings 23
Console Settings 47
Camera Settings 57
Record Settings 64
Alarm Settings 79
Network Settings 98
Analytics & Text 114
Oracle Dome Configuration 120
Operating the Viewer 133
Appendix A 158
Appendix B 159
Appendix C 163
Appendix D 164
Appendix E 165

Whilst every attempt is made to ensure these manuals are accurate and current, AD reserve the right to alter or modify the specification of the machine described herein without prejudice.

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Introduction

What is the…

TransVu ?

The TransVu is a mobile video server and digital recorder capable of providing uninterrupted in-vehicle surveillance with web browser access to live and recorded images.

Specifically designed for public and commercial transport applications and encased in a ruggedised metal chassis; the TransVu can withstand tough environments which would prove too harsh for most electrical equipement.

Alongside traditional DVR features such as alarm, and audio recording, the TransVu incorporates features specifically developed for the transportation market. Location tracking via GPS, a built-in accelerometer and intelligent power management (integrated with vehicle system data such as Tachometer); all enhance the functionality of the TransVu.

AD's renowned MultiMode 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 or 16 camera inputs, the TransVu has onboard Activity detection software, AD's trademark plug and play intuitive set-up and user-friendly interface helps keep installation and operator training to a minimum.

Among the many other features included as standard on the unit are; multiway display, intuitive Video Timeline, Point&Go control of supported DM Oracle dome cameras and remote monitoring via NetVu ObserVer (utilising DM's unique TransCoding capabilities to provide fluent live and replay images).

The TransVu digital recorder can provide a long, trouble free service in high vibration environments making it the most powerful transit surveillance tool available today.

For further information, please visit the website:

www.transvu.co.uk

or contact AD customer services in your region.

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Features

- Embedded operating system
- Web pages provide easy remote configuration
- Ruggedised design with aerospace shocks
- 8 or 16 camera inputs
- Low power consumption
- Simultaneous live viewing, playback and recording
- Internal storage
- Accelerometer providing G-force measurements
- Ignition control power management
- Scalable recording settings
- **Multi***Mode* Recording - Dynamically-switchable resolution, record-rate & compression (MPEG4/JPEG) per camera
- Simultaneous MPEG-4 and JPEG transmission and recording
- USB ports for download of video archive to external storage device
- Serial / Coax telemetry camera support
- Built in activity detection
- Easy to use on-screen, colour coded softkey menu options
- Global record rates of 200PPS (PAL), 240PPS (NTSC)
- Easy to use on-screen, colour coded softkeys
- Field serviceable hard drives
- Telemetry support (Coax & Serial)
- Single, Picture in Picture and Multiway displays
- Configurable alarm inputs
- Fixed and removable hard drive options available
- Audio inputs and outputs
- Video motion detection
- Location tracking via GPS
- Image transmission on alarm
- Integration capabilities allow project specific solutions

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The unit has NetVu Connected technology built-in to ensure maximum compatibility with future developments in networked security. NetVu Connected technology enables the Unit to fully interact with other NetVu Connected compatible products from AD including the DV-IP 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 Unit includes a unique colour-coded 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.

VIDEO TIMELINE

The Video Timeline feature is a new intuitive interface for the control and navigation of playback video. 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 AD 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.

Absolute Positioning

Using Camera Selection Maps and the unique Absolute Positioning capability of AD 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.

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Quick Overview Of Default Record Settings

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 connected.

Default record settings is MPEG4 3pps, JPEG 1pps or MultiMode recording.

Complete Flexibility
It is possible to set the unit's record configurations based on specific priorities. The **Profile Record** feature allows different record rates and quality settings to be used for unset, set and override modes for all cameras. This can ensure event images are recorded at high quality, whilst normal 'non event' images are recorded at a reduced setting, minimising storage requirements.

With true global record rates of up to 200pps (PAL) and 240pps (NTSC), the unit offers recording of up to 3pps on each camera, out of the box, at a record duration of 7, 14 or 30 days (the default is 14 days). *Note: It is the Installer/Owner's responsibility to ensure that the record duration is set to the necessary requirements of the application.*

Design of the manual

The manual has three parts:

1. Installation — Shows details of how to install the unit and connect external devices.
2. Configuration — Shows details of the unit's 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 sequentially (as they appear on the page), to enable accurate, easy and efficient setup.

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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 excessive 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.

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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 AD Ltd.,

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

Before you start

Check the contents of the box

The following items are included in the box:

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

- TransVu DVR
- TransVu Software CD
- Mounting plates with shock mounts and fittings

If any of these items are missing please contact AD Technical Support team.

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

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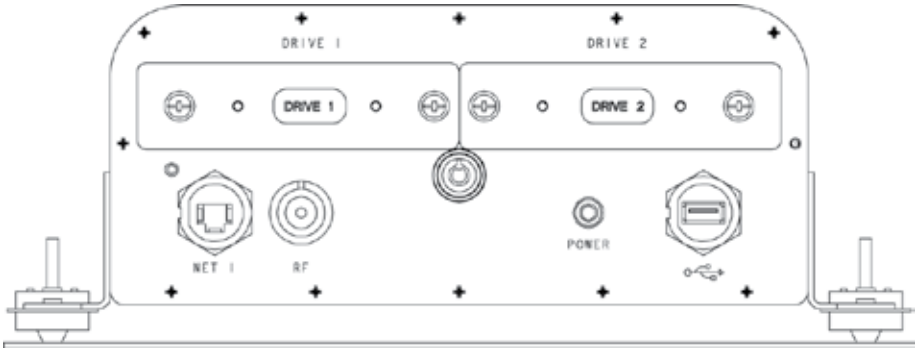
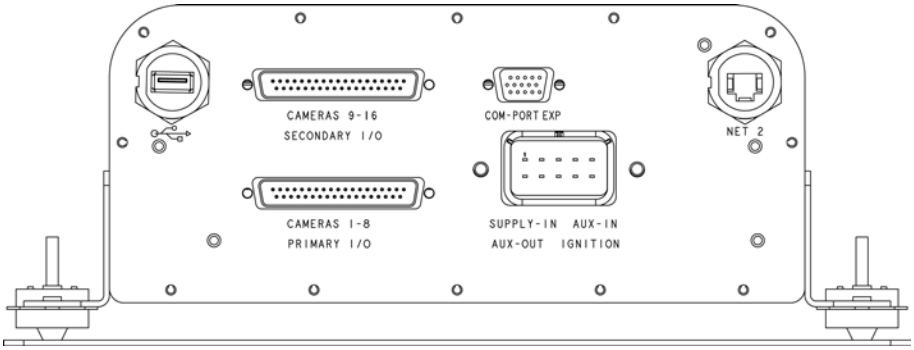
Installing the Unit

Front Panel connections



DRIVE 1	Removable Hard Drive
DRIVE 2	Removable Hard Drive
NET 1	10/100Mb/s Ethernet Port
RF	Coaxial RF (radio frequency) connector
USB	USB2.0 Connector

Rear Panel connections



USB	USB2.0 Connector
CAMERAS 1-8 / PRIMARY I/O	37-Way multi purpose Connector
CAMERAS 9-16 / SECONDARY I/O	37-Way multi purpose Connector
COM 1	15W DSUB Connector
SUPPLY-IN AUX-IN /AUX-OUT IGNITION	10-Way Power IN / multi purpose Connector
NET 2	10/100Mb/s Ethernet Port

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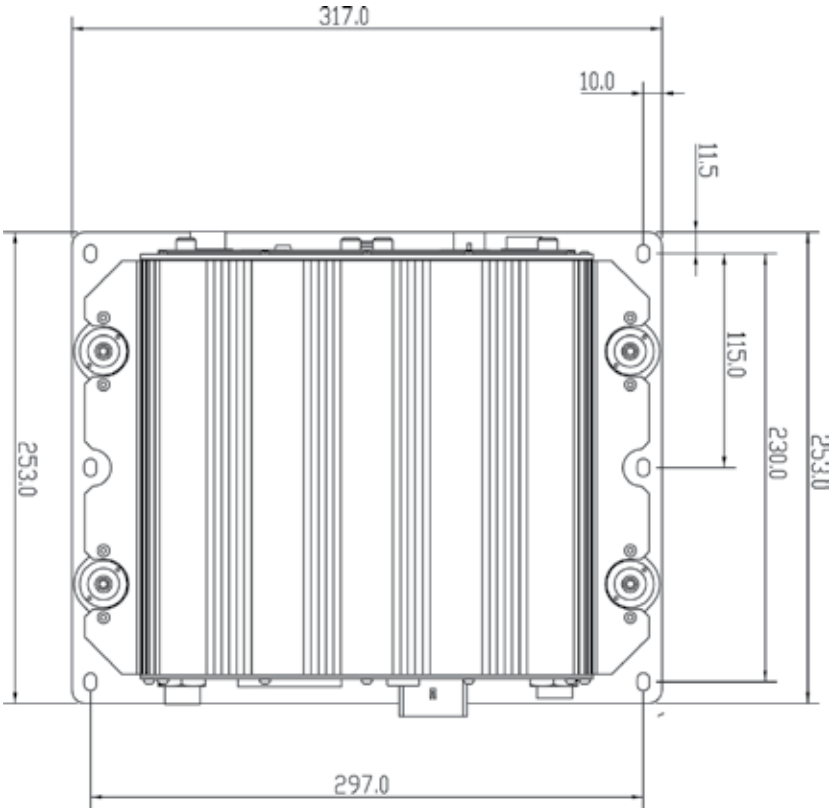
Physical Installation

The TransVu is fixed to the vehicle via a mounting plate.

Note: *Read all the instructions before commencing installation.*

Baseplate dimensions & measurements:



Installation space

Additional space is required around the connections to allow the disconnection of cables from the unit.

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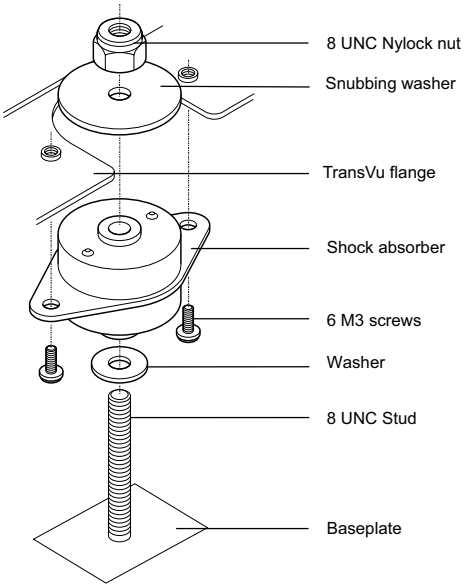
Mounting the Baseplate

The TransVu baseplate should be secured to the vehicle using appropriate nuts, bolts and shakeproof washers. The baseplate should preferably be mounted horizontally although it can be mounted vertically if necessary.

It should be mounted as low as possible within the vehicle, on a secure base free from resonance and secondary vibrations. The unit does not require alignment with the normal direction of travel for the vehicle.

The TransVu is secured to the mounting plate via four shock absorbing fixings. This dramatically reduces the effects of vehicle borne vibrations and enables the system to operate in harsh shock environments.

1. Fix each of the four shock absorbers to the TransVu base from underneath using two 6 UNC screws provided. These must be fixed using loctite on the screw threads.
2. Fit the lower washer to the stud.
3. Lower the TransVu and mounted shock absorbers onto the baseplate. (See section “Fitting the TransVu to the Baseplate”.)
4. Put a snubbing washer on each of the four studs on top of the shock absorbers.
5. Fix the TransVu in place by using four 8 UNC Nylock nuts.



Vibration will cause the TransVu to move on the shock mounts. Allow clearance around the unit to accommodate this movement. It is recommended that a minimum fitment volume of 170mm x 370mm x 319mm is allowed.

Total height of enclosure for TransVu is 120mm.

Care in feeding cables

Ensure the cables feeding the 37 way connector are clamped to the same mounting surface as the TransVu. This will help avoid excessive vibration being transmitted to the unit.

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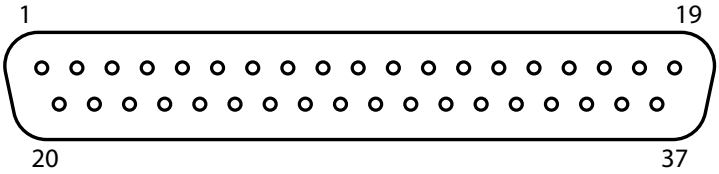
CAMERAS 1-8 / PRIMARY I/O 37 way Connector Layout

Numbered as looking at the front of the male connector.



Note: *Following PIN layout relates to the 16 channel unit.*

Pin	Signal Description
1	Main Monitor Output (1V p-p CVBS video)
2	Video ground
3	Camera 8 (1V p-p CVBS video)
4	Camera 5 (1V p-p CVBS video)
5	Video ground
6	Camera 4 (1V p-p CVBS video)
7	Camera 1 (1V p-p CVBS video)
8	Audio ground
9	Audio Input 2 (line or mic-level)
10	Relay output 1b
11	COM2 RS232 Rx
12	COM3 RS232 Rx
13	Analog GND
14	Alarm Input 1
15	Alarm Input 3
16	Tach In (2)
17	Relay output 2a
18	Relay output 2b
19	Alarm Input 4
20	Camera 7 (1V p-p CVBS video)
21	Camera 6 (1V p-p CVBS video)
22	Video ground
23	Camera 3 (1V p-p CVBS video)
24	Camera 2 (1V p-p CVBS video)
25	Video ground
26	Audio Input 1 (line or mic level)
27	Relay output 1a
28	Alarm GND
29	Alarm Input 2
30	Tach In (1)
31	COM2 RS232 Tx
32	Serial GND
33	COM3 RS232 Tx
34	Serial GND
35	Switched +5V output (3A)
36	Alarm Input 5
37	Alarm Input 6

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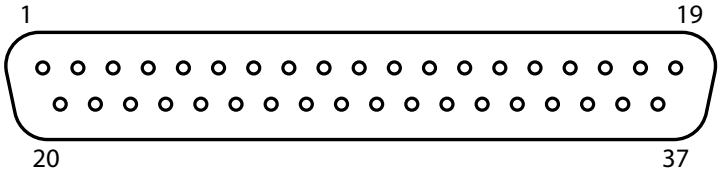
CAMERAS 9-16 / SECONDARY I/O 37 way Connector Layout

Numbered as looking at the front of the male connector.



Note: *Following PIN layout relates to the 16 channel unit.*

Pin	Signal Description
1	Spot Monitor Output (1V p-p CVBS video)
2	Video GND
3	Camera 16 (1V p-p CVBS video)
4	Camera 13 (1V p-p CVBS video)
5	Video GND
6	Camera 12 (1V p-p CVBS video)
7	Camera 9 (1V p-p CVBS video)
8	Audio GND
9	Audio output
10	COM5 RS232 Tx
11	COM1 RS232 Tx
12	COM4 RS485 +
13	Audio GND
14	General Purpose Output 1 (+12v)
15	General Purpose Output 2 (+12v)
16	General Purpose Output 3 (+12v)
17	COM1 RS422 Tx+
18	COM1 RS422 Tx-
19	Analog GND
20	Camera 15 (1V p-p CVBS video)
21	Camera 14 (1V p-p CVBS video)
22	GND
23	Camera 11 (1V p-p CVBS video)
24	Camera 10 (1V p-p CVBS video)
25	Video GND
26	COM5 RS232 RXD
27	COM1 RS422 Rx-
28	COM1 RS422 Rx+
29	COM1 RTS
30	COM1 CTS
31	COM1 RXD
32	Serial GND
33	COM4 RS485-
34	Not Used
35	Not Used
36	Serial GND
37	Serial GND

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Connecting Cameras

Signal type:	Unbalanced, ground common to chassis
Signal level:	1 volt peak to peak
Signal termination:	75 ohms, fixed
Recommended cable:	Coaxial, 75 ohm impedance, 90% copper braid, copper multicore central conductor.

Note: *Ensure all camera cable screens are firmly bonded together and securely connected to connector pins.*

Connecting Audio IN

Signal type:	Unbalanced, common analog ground
Input type:	Microphone or line sensitivity software selectable by onboard Jumper switches for both channels
Signal levels:	Microphone input 25mv to 500mv Line input 50mv to 1000mv RMS Impedance 10 k ohm
AGC:	Software selectable
Bias supply:	3V, 3mA max., jumper selectable.
Recommended cable:	Single core screened audio cable

Connecting General Purpose Outputs

Signal level:	+12v @ 200mA each, current limiting required

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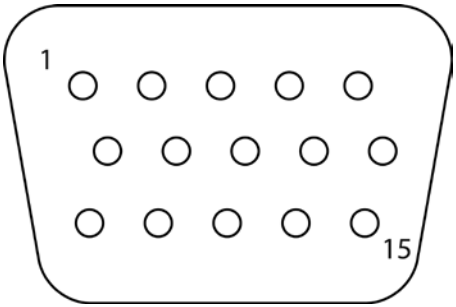
Connecting COM Points (Com 1 & 2 Serial Expansion Connector)

Numbered as looking at the front of the male connector.



Pin	Signal	Description
1	COM2_RS232_TXD	CW0 UARTB RS232 TXD
2	COM2_RS232_RXD	CW0 UARTB RS232 TXD
3	DGND	Digital Ground
4	COM1_RS232_RXD	CW0 UARTA RS232 TXD
5	COM1_RS232_TXD	CW0 UARTA RS232 TXD
6	COM1_RS485+	CW0 UARTA RS485+
7	COM1_RS485-	CW0 UARTA RS485-
8	DGND	Digital Ground
9	COM1_RS232_CTS~	CW0 UARTA RS232 CTS
10	COM1_RS232_RTS~	CW0 UARTA RS232 RTS
11	COM1_RS422_RX+	CW0 UARTA RS422+
12	COM1_RS422_RX-	CW0 UARTA RS422-
13	DGND	Digital Ground
14	AUDOUT0	CW0 filtered audio Left output
15	AUDOUT1	CW0 filtered audio Right output

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Connecting Relay Output (solid state)

This is a single pole solid state relay which can be activated by the software based upon user-defined events.

Note: *The relay is not polarised and must always be connected in one of the ways shown below. Damage will occur otherwise. The maximum switching load is 600mA.*

Connecting Alarm Inputs

Six alarm inputs are available which can be configured via the Configuration menu pages as follows:

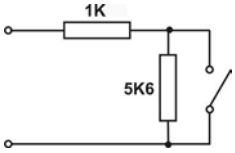
Normally open contact	Alarm recognised when a short circuit to 0V is applied
Normally closed contact	Alarm recognised when input is open circuit

Note: *Refer to Alarm Settings->Alarm Input for guidance on alarm configuration.*

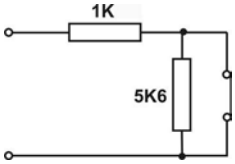
End Of Line Circuitry

The following describes the End Of Line (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).

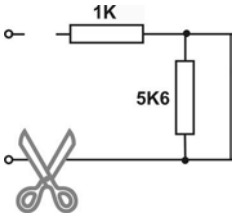
The alarm state could be Normally Open or Normally Closed, however the tamper states are the same for both settings.



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’.

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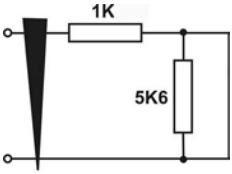
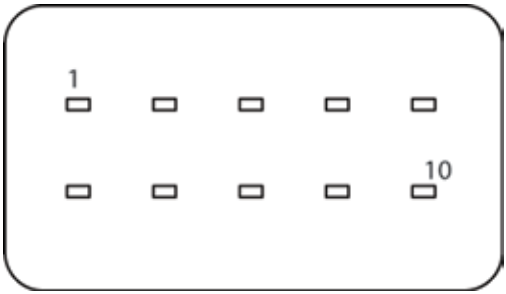


Short Circuit Tamper, the resistive value is 0 ohms.

POWER / AUX IN - OUT / IGNITION Connector Layout

Numbered as looking at the front of the male connector.



Pin	Signal Description
1	+V BATT IN/ POWER IN
2	+12V AUX OUT (4A)
3	+VAUX IN HEATER
4	+5V AUX OUT (2.5A)
5	IGNITION IN
6	GND
7	GND
8	GND
9	GND
10	GND

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Accessing & Configuring the Unit

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

Accessing the menus on a local monitor

The Configuration pages can be displayed on a local monitor (refer to 'Installing The Unit' for guidance on connecting a local monitor). When a monitor is successfully connected, use a USB mouse and move the pointer to the bottom of the screen. The navigation colour bar will be displayed. Select 'Next' until the 'Menu' option is displayed. When 'Menu' has been selected, the unit's Configuration pages will be displayed.

Accessing the menus on a PC web browser

Locating the Unit IP address

The IP address of the unit is required to access the webpages. It can be identified from the configuration menu pages using the local monitor. Follow the procedure detailed above and navigate to the Configuration Menu:System Settings->System menu to find the DHCP assigned IP address.

Note: *The unit can be installed in a DHCP network environment where an IP address, subnet mask and default gateway will automatically be allocated from the network DHCP Server (DHCP is enabled by default).*

Note: *If a DNS (Domain Name Server) address is not to be used, it is strongly advised that a fixed IP address be assigned (a DHCP assigned address can change without notification i.e. following power failure).*
A fixed IP address can be assigned via the Configuration Menu:Network Settings ->Network menu.

Default DNS Address

It is recommended that a DNS (Domain Name Server) address be configured. Assigning a recognisable name can help a remote user to locate the unit.

If no System name is allocated to the unit, the default DNS address will be:

machine serial number.yourdomain.com

- <machine serial number> is displayed in the System menu page and also on the underside of the unit.
- <yourdomain> is the name assigned to your DNS network.

The default DNS address can be renamed via the Network Settings->Network menu. Following renaming, the DNS address will be:

yourname.yourdomain.com

- ' yourname' is the name assigned via the Network menu.
- <yourdomain> is the name assigned to your DNS network

Note: *To activate an assigned DNS address, it will be necessary to reboot the unit. The unit can be rebooted via System Settings:>Maintain-> Reset.*

IMPORTANT: *To set the time and date on the unit, navigate to System Settings ->Time and Date.*

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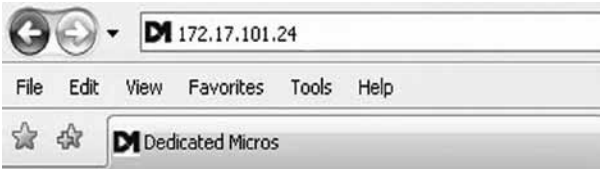
Accessing the Configuration Webpages

The unit can be configured using the webpages. To access these:

1. Launch Internet Explorer (or similar web browser package).
2. Type the URL for the unit (IP or DNS address).



3. The Opening menu page will be displayed.

Main Menu

When first accessing the unit, the main menu will be displayed. This menu allows access to the Configuration menus, the Viewer menus, the Event Search feature and also several Download options.

Note: *The Download options will only be available if viewing remotely via an IP connection.*

Select the Configuration menu tab to access the unit's Configuration menus. Refer to 'Navigating the Configuration Menus' for further guidance.

Select the Event Search tab to access the unit's Event Search function. Refer to 'Event Search' for further guidance.

Note: *The 'Event Search' option will only be displayed if 'Enable Event Search' is selected in the 'Features' menu: System Settings->Features.*

Select the Viewer menu tab to access the unit's Viewer function. Refer to 'Unit Operation' for information on the numerous Viewer features.

Select the Download menu tab to access the various Download sub-options. Select from:

- Product Manual — Select to open an electronic version of the Installation & Operation Guide.
- ObserVer Manual — Select to open an electronic version of the NetVu ObserVer User Guide. NetVu ObserVer is a free video management software package from AD. It allows users to seamlessly view distributed images from any 'NetVu Connected' product.
- NetVu ObserVer — Select to download the NetVu ObserVer video management software.
- Java (JRE) — Select to download the Java (JRE) software (from the unit). This software is required to successfully view Configuration and Viewer menus remotely.

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IMPORTANT: *By default, no Usernames and Passwords are required to access any of the various menus. Usernames and Passwords can however be added to regulate access to the Configuration and Viewer menus. Refer to the 'Display Settings-> User Accounts' menu for information on establishing Usernames and Passwords.*

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Navigating The Configuration 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. Associated sub-menus will 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.

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

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System Settings

The menus under the System Settings heading allow the unit's 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 unit's 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 Power Status page shows information relating to the unit's Camera, HDD, and AUX power outputs.

The GPS Status page details information relating to the unit's GPS (Global Positioning System).

The Language page allows the system language to be set. The language can also be changed for the current session only.

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 five serial ports to be individually configured for one of a range of operations, including, debug and telemetry.

The GP Output page allows configuration of the three General Purpose Outputs. These outputs can be configured to activate upon various system events.

The Power Manager page allows the configuration of power saving procedures such as the timeout limits for ignition off and low voltage level detected.

The Audio page shows the settings available for each of the 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. Data Logs can be exported to a USB device as required. It also enables the unit to be reset (required for software updates to be uploaded from an inserted USB device).

The PowerScript Mgmt page allows installed PowerScripts to be activated/deactivated on start-up.

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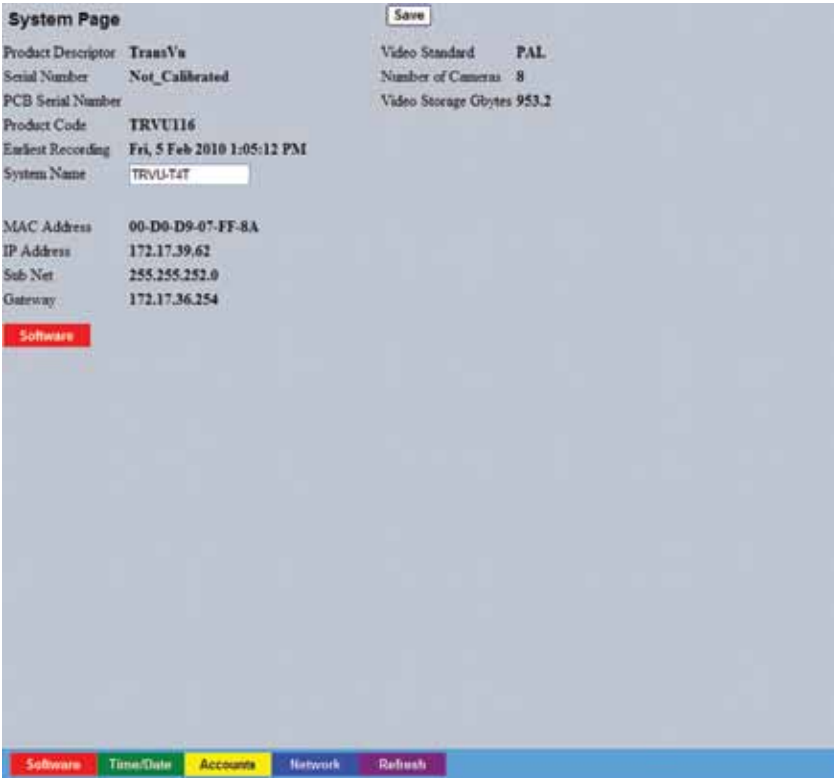
System

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.
Serial Number	Identifies the serial number of the specific unit.
PCB Serial Number	Displays the PCB (Printed Circuit Board) serial number of the unit.
Product Code	Displays a code identifying the unit's specification.
Earliest Recording	Displays the date/time of the earliest recording held on the unit.
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).
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.
Video Storage Gbytes	Highlights the available video storage capacity in Gigabytes.
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.

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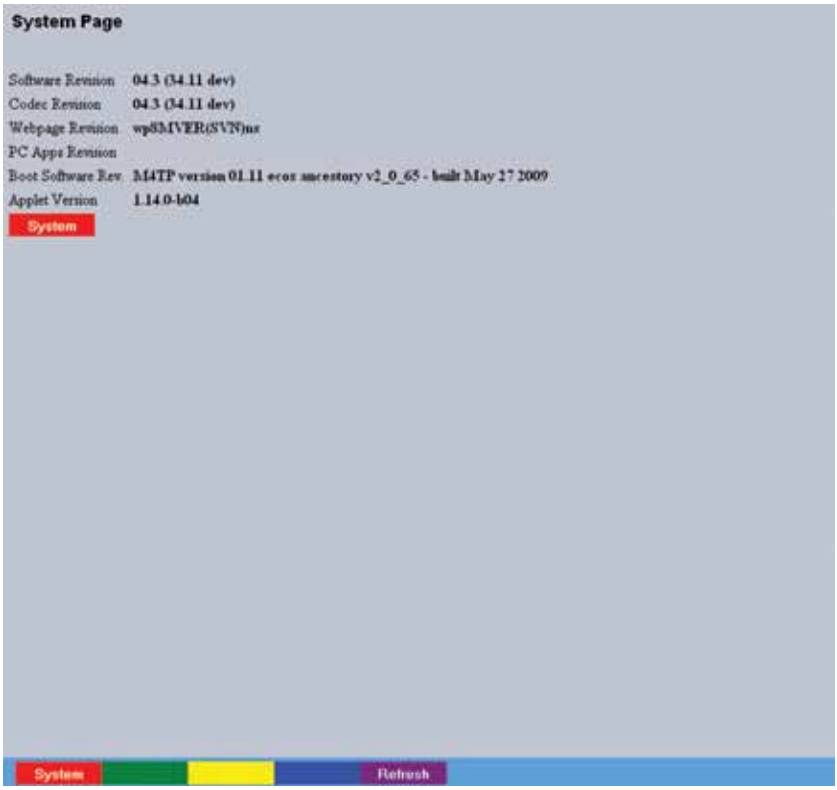
Gateway	This is the IP address of the default gateway (router) assigned by the DHCP server.
Software (Red)	Select this option to display installed software information (see below).

Software Menu



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 webpage version the unit is running.
PC Apps Revision	This identifies the revision archive of the Viewer and associated PC Apps software.
Boot Software Rev.	Displays the infrastructure componentry software revision.
Telem PIC Rev.	This identifies the version of the Telemetry control device installed on the unit.

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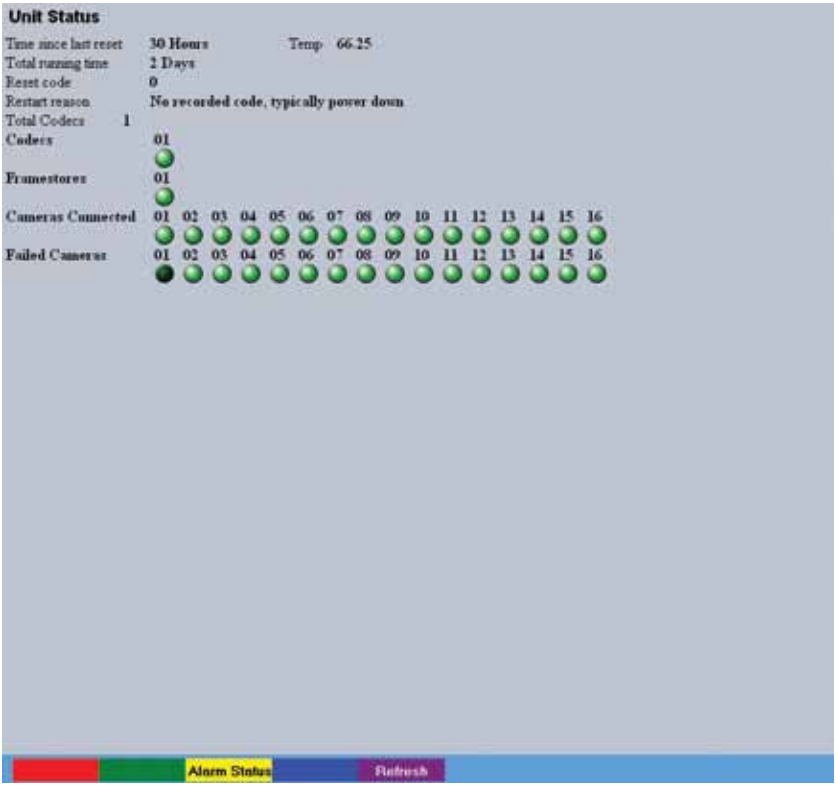
Unit Status

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 Logs' option (Configuration menu:System Settings->Maintain) to a USB device.



Time since last reset	Details the time since the unit was last reset.
Temp	This details the current internal temperature (in celsius) of the unit.
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.
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.
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.

Note: *The 'On'/'Off' text will only be displayed if viewing the Unit Status menu remotely over an IP connection.*

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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.

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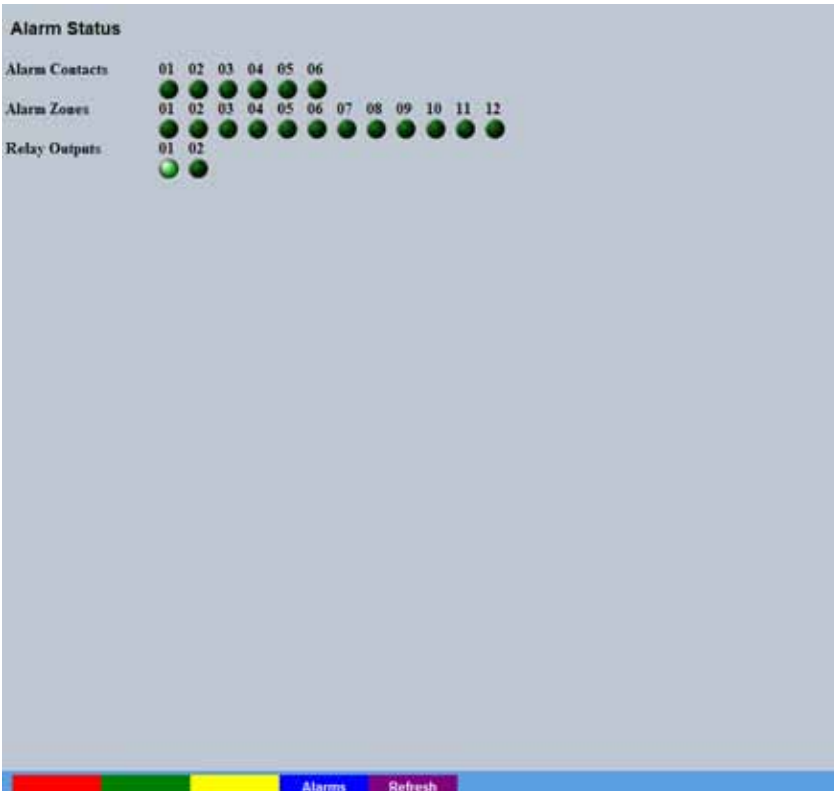
Alarm Status

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



Alarm Contacts/Zones/Relay Outputs	Alarm Contacts, Alarm Zones and Relay Outputs that are in an 'active' state are shown light green. 'In-active' ones appear dark green (not illuminated).

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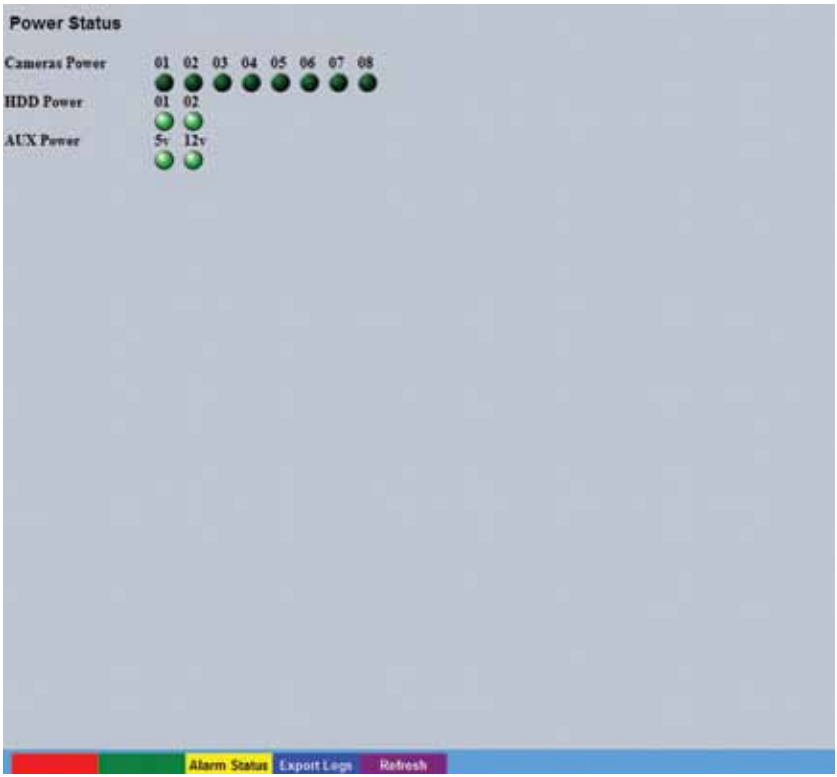
Power Status

This menu details information regarding the status of the unit's Camera, HDD, and AUX power outputs.



Camera/HDD/AUX Power	Camera outputs that are in an 'active' state are shown light green. ''Inactive' or failed outputs appear dark green (not illuminated). Any camera outputs not fitted to the unit are displayed red.

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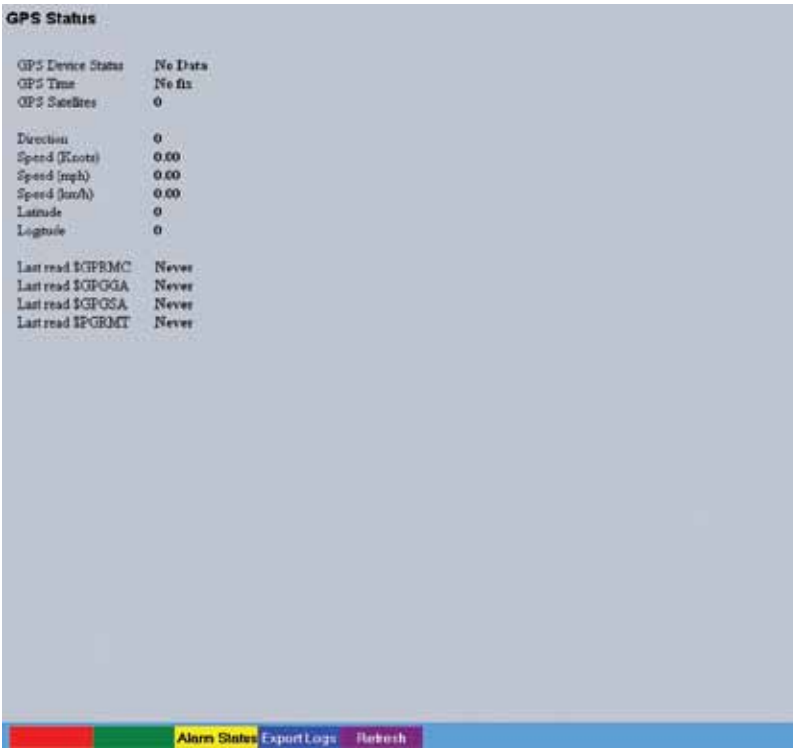
GPS Status

This menu details incoming information received from an attached Global Positioning System (GPS) device.

Note: *Internal GPS is imbedded in the unit and is connected internally to COM 2. To activate this option, the 'Internal GPS' option must be selected via the Feature menu (Configuration menu:System Settings->Features). External GPS can be used, either from serial or Ethernet port forwarding. To activate this option, the 'External GPS' option must be selected via the Feature menu (Configuration menu:System Settings->Features) Selecting the External GPS option enables GPS data from any source to be recorded in the image header and be viewable in embedded data. Refer to Appendix D for further guidance on establishing a GPS connection.*



GPS Device Status	Details the current status of the GPS device. 'No Data' will be displayed if no data has being received. 'Data Timeout' will be shown when a device has been disconnected 'Bad Data' will be shown if the device is not configured correctly.
GPS Time	Will display the current time. 'No Fix' will be displayed if no data is received.
GPS Satellites	Details the number of satellites currently being interrogated.
Direction	Displays the current course in degrees.
Speed (Knots)	Displays the current speed in knots.
Speed (mph)	Displays the current speed in mph.
Speed (km/h)	Displays the current speed in km/h.

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Latitude	Details the current Latitude position.
Longitude	Details the current Longitude position.

The following data statements are standard GPS format responses:

Last Read $GPRMC	Details the recommended minimum GPS data.
Last Read $GPGGA	Details the Fix information.
Last Read $GPGSA	Details the Overall satellite data.
Last Read $PGRMT	Details the Sensor status information.

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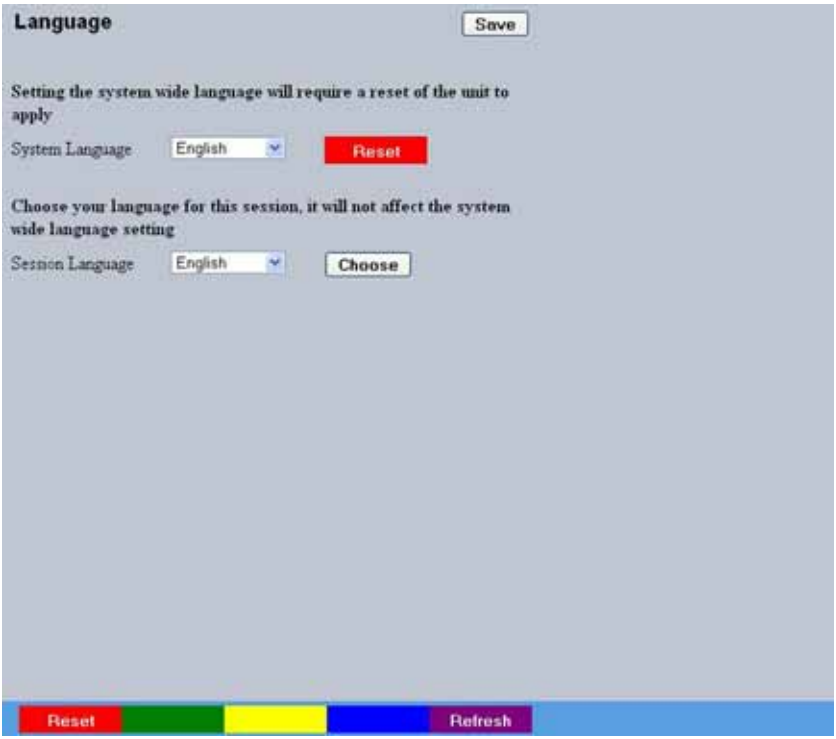
Language

This menu allows the system language to be set. Changing the System Language will effect all menu pages. If required, the language can also be changed for the current session only.



System Language	Select to change the system language setting.
Reset (Red)	Select to reset the unit.

Note: *The unit MUST be reset to implement system language changes.*

Session Language	Select to change the language settings for the current session only.
Choose	Select to immediately activate session language changes.

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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 webpages.

System Time	The current system time and date is displayed.
Current Time Zone	Displays the currently selected time zone settings.
Time Zone	Select the relevant timezone offset from the accompanying drop down menu.
Reset (Red)	When a change has been made to the unit's Time Zone setting, it is necessary to reset the unit before the change will take effect.
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.
Set Time (Green)	When current time/date as been entered, select this button to implement changes.

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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 webpages.
Sync Time (Blue)	Use this button to synchronise the time of the unit to that of the PC being used to view the webpages.

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

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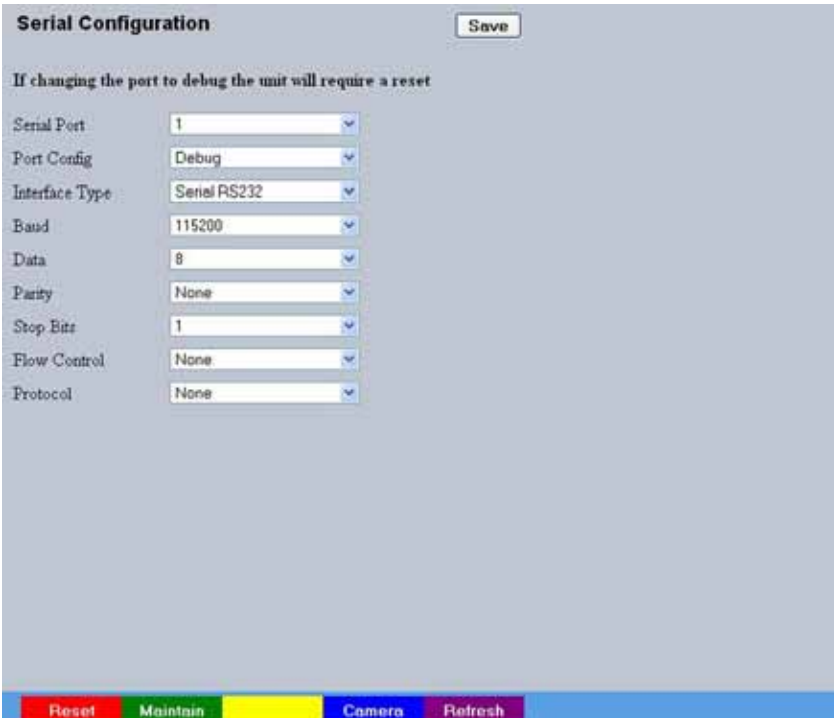
Serial Ports

This menu allows configuration of the unit's Serial ports. Refer to 'Installing the Unit' for installation information.



Serial Port	These are the five 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 purpose
General	Sets port for General purpose connections
EPOS	Sets the serial port for connection to an EPOS (Electronic Point Of Sale) device
LED Box	Sets the port for connection to a TransVu LED Status Box.

Note *Contact your regional AD Group representative for information on the TransVu LED Status Box.*

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.*

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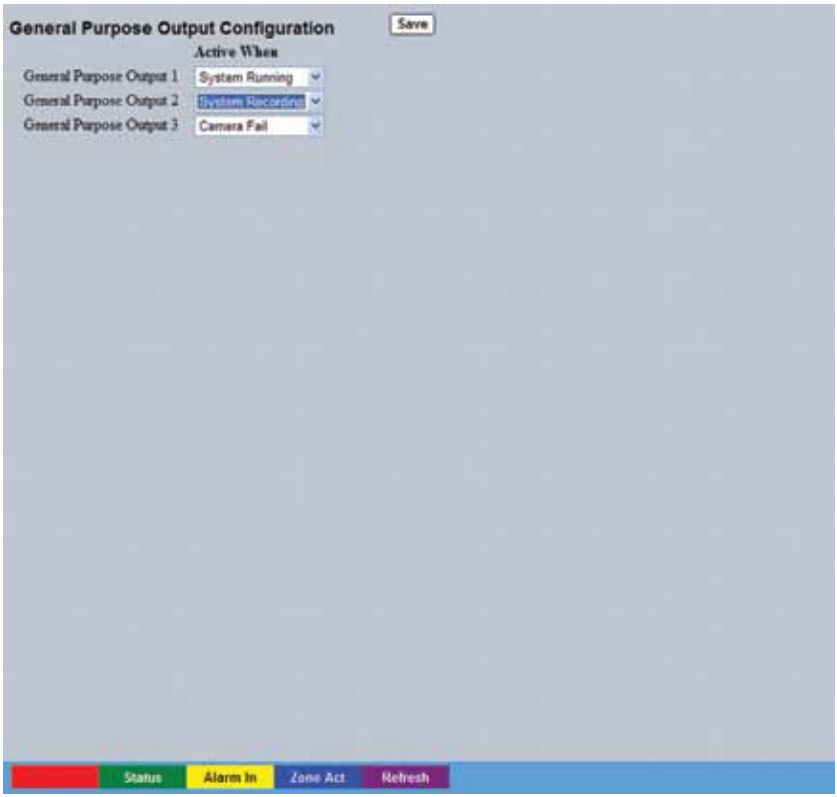
GP Output

The GP Output page allows configuration of the three General Purpose Outputs. The GP Outputs are each capable of supplying +12v @200mA. They can be configured to activate upon various system events i.e. Camera Fail or Alarm Active.



General Purpose Output 1/2/3 Active When

Each of the three GP Outputs can be individually configured. Select the system event which will trigger the Output to become active. Select from:

- Disabled (Inactive)
- System Running
- System Recording
- Alarm Active
- HDD Power Fail
- CAM Power Fail
- AUX Power Fail
- Any Power Fail
- Camera Fail
- Camera Masked

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Power Management Page

This menu allows configuration of power management and ignition line control functions.

Power Management	Select ‘Enabled’ to activate all configured Power Management functions.
Powerman Version	Details the version number of the installed Powerman controller software.
Caddy Keyswitch	Select ‘Enabled’ when using removable caddy storage disks.
Ignition Enabled	Select ‘Enabled’ to activate the ignition timeout control.
Ignition Off Timeout	Enter a time (in minutes) from the ignition being switched Off to the unit powering down.
Low Supply Timeout	Enter a time (in minutes) from a low voltage supply being detected to the unit powering down.
Minimum Supply	Enter the minimum voltage level at which the unit will commence a forced shutdown.
Nominal Supply	Enter the nominal voltage at which the Low Supply Timeout function will activate.
Power Retry	If power is lost, the unit will attempt to reconnect to the power source when ‘Enabled’ is selected here
Retry Count	Enter the number of attempts the unit will make to reconnect to the power source.
Retry Timeout	Enter the maximum time (in seconds) that the unit will attempt to retry the power connection.

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Cameras Power	Currently powered cameras will be shown light green.
HDD Power	Currently active Hard Disk Drives will be shown light green.
AUX Power	Currently powered connected auxiliary devices will be shown light green.

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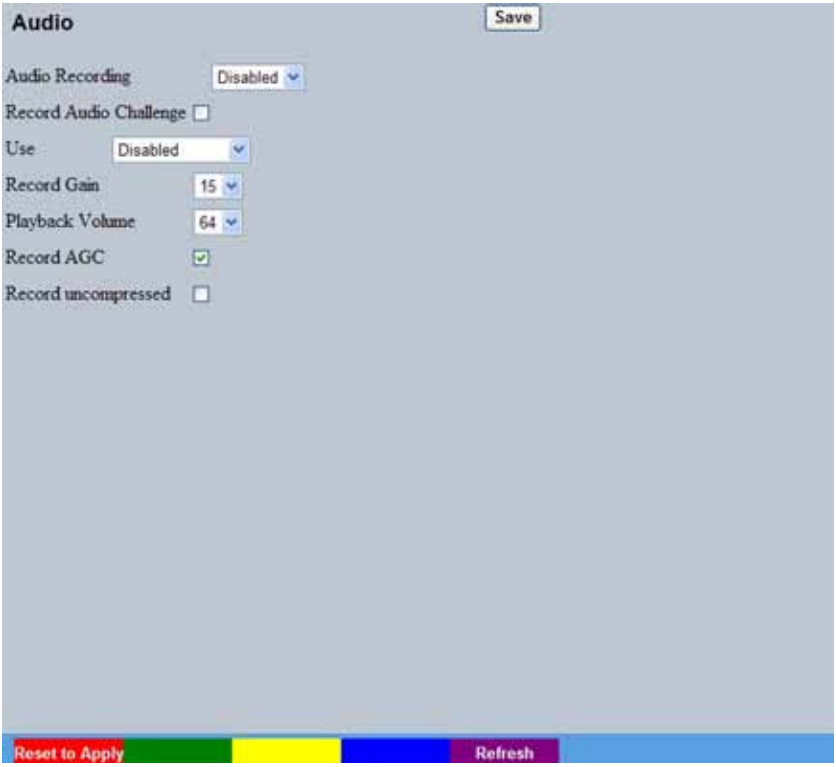
Audio

The Audio menu allows settings for the bi-directional audio channels to be edited.



Audio Recording	Select 'Enable' to activate Audio recording.
Record Audio Challenge	Select this option to record an audio challenge originating from an operator at an RVRC.
Use	Select the intended use of the incoming audio i.e. 'Local Playback', or 'Challenge'. Select 'Disabled' to deactivate.
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. Select from 1 to 15. The default and recommended setting is 15.
Playback Volume	Select a volume setting between 1 to 64 for audio playback.
Record AGC	Select this option to activate the Automatic Gain Control (AGC) function. AGC amplifies audio until a recordable (usable) signal is produced. Please note that this may result in increased 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.*

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Features

This menu enables the activation of system features such as Email Reporting and the establishment of display configurations for both PAL and NTSC monitors.

Note: *Internal GPS is imbedded in the unit and is connected internally to COM 2. To activate this option, the 'GPS' option must be selected. External GPS can be used, either from serial or Ethernet port forwarding. Selecting the External GPS option enables GPS data from any source to be recorded in the image header and be viewable in embedded data. Refer to Appendix D for further guidance on establishing a GPS connection.*

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.
GPS	Select this option to activate the inbuilt GPS (Global Positioning System) function, refer to 'System Settings->Status-GPS Status' for information regarding the GPS unit.

Note: *Refer to Appendix D for further guidance on establishing a GPS connection.*

Remote Reporting	Select this option to activate the Remote Reporting function, refer 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.*

Data Logging	Select this option to activate the Data Logging function, refer to 'Alarm Settings-Data Logging' for more information.

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

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.*

Automatic FTP Download	Select this option to enable automatic FTP downloads to download information from the unit and/or the webpages, 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.*

Challenge Audio	Select this option to record any audio originating from an external source i,e. an operator at an RVRC.
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.*

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.*

Camera Masking	Select this option to activate the Camera Masking function, refer to ' Alarm Settings-Camera Masking' for more information.

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

SMS	Select to use Short Messaging Service (SMS). Suitable external hardware is required. Refer to Appendix B for further guidance
SMB server support	Select this option to activate the SMB (Server Message Block) file sharing function. When activated, the SMB protocol allows the unit to access PCs operating the Windows operating system (and Linux machines running Samba). This enables sharing of files and directories to/ from the unit. The name of the SMB Workgroup on the network must be correctly entered in the Samba Workgroup option (see below). It is important that the Server Name assigned to the unit via 'Network Settings->Server Name' is unique within the workgroup being used. To access the unit via a PC running SMB (and has access to the same Workgroup); open My Network Places-Entire Network-Microsoft Windows Network. The Workgroup containing the unit and PC(s) should then be available. Files and folders can then be copied/added as required.
485 Bus	This option must be checked if a 485 Bus module is connected to the unit
Accelerometer	Select this option to activate the Accelerometer function, refer to ' Alarm Settings-Accelerometer' for more information.

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

Deinterlace mask	Select this option to improve display clarity and minimise the comb effect that may be visible when recording high motion scenes in 4CIF mode.
Use Record Profiles For Tx	Select this option when units required Video Transmission profile

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(rate/quality/resolution) is identical to that being recorded.

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.
Telem UDP Port Selection	Select 'Automatic' to enable the unit to select a suitable port for telemetry purposes. Select 'Default' to use the default port settings (1025). Select 'User Defined' to use settings entered in the 'Telemetry Port' option.
Telemetry Port	Enter the port settings for telemetry data here. The default setting is 1025.

Note: *This option will only be displayed when 'User Defined' is selected in the Telem UDP Port Selection option.*

Samba Workgroup	Enter the Samba (SMB) Workgroup details.

Note: *A unit reset is required to activate/update Samba Workgroup details.*

User Logging	Enable this option to activate User Logging. Refer to 'Appendix C' for further information regarding the User Logging function.
Comb Filter	Enable this option to activate the Comb Filter function. Comb Filter can help improve the fine details of a video signal image by filtering the luminance and chrominance separation process.
Auto Update Web Variables	Configures the unit to update all system variables required for an automatic upgrade without requiring confirmation. Do not check this box if you run a customised applet.
Enable Event Search	Select to enable the Event Search option. When enabled, the option will appear within the Configuration Menu tree. Refer to 'Navigating the Configuration Menus->Event Search' for further details.
Disable Cam Detection	Select this option to disable the auto camera detection feature. By default, the unit will detect a camera being connected and automatically set the mode for that camera to 'Colour'. When the 'Disable Cam Detection' feature is selected, it will be neccerssary to access the Camera configuration menu (Configuration menu:Camera Settings->Camera) and manually select the mode option for that camera.
Disable Transcoding	Select to disable the unit's transcoding capabilities. In normal circumstances this should always remain enabled, however it can be useful to disable the feature when conducting maintenance.
Enable RVRC page	Select this option to activate the RVRC Remote Set/Unset/ Override function, refer to 'Record Settings-RVRC' for more information.

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

Enable External Modules	Select to enable any connected RS485 alarm modules.
Enable Internal GPS	Select this option to enable an externally connected GPS (Global Positioning System). An external GPS unit can be connected via a serial port or by Ethernet forwarding.

Note: *Refer to Appendix D for further guidance on establishing a GPS connection.*

Maintain

This menu allows the unit to be reset and a software upgrade to be performed via 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.
Note: *Selecting the Default button will cause the system to reboot.*	
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.

Export Logs

Export Logs (Yellow)	Select to export all Logged data to a connected external device.
To	Select the relevant media device to save to export to.

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Server

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

IMPORTANT: *To upgrade the unit, insert a media device containing relevant software upgrades and select 'Reset'.*

Note: *For the latest software upgrades, please refer to the website: www.dedicatedmicros.com*

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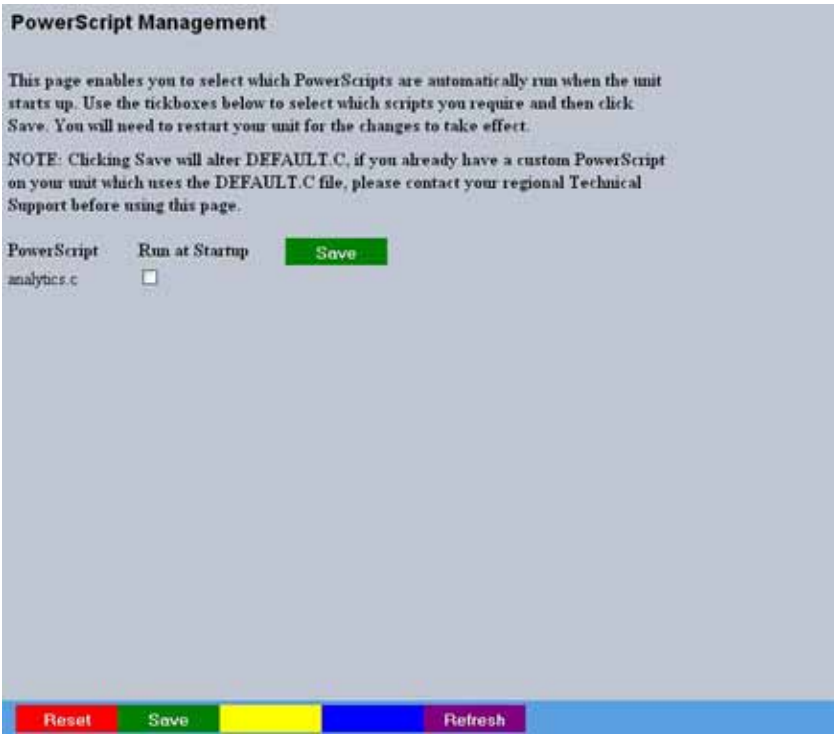
PowerScript Mgmt

This menu enables installed PowerScripts to be activated/deactivated on start-up. Use the tickbox(es) to select/deselect installed PowerScripts, then select Save (Green). A system reset will be required for the changes to take affect.



Note: *Changes this page will alter the 'Default.C' file. If you already have a custom PowerScript on your unit which uses Default.C, please contact AD Technical Support for guidance Tel: +44 (0) 845 600 9502 for further guidance.*

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Console Settings

The menus under the Console Settings heading allow the unit's Viewer display settings to be altered, Map data to be configured and User Account details to be viewed and changed.

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.

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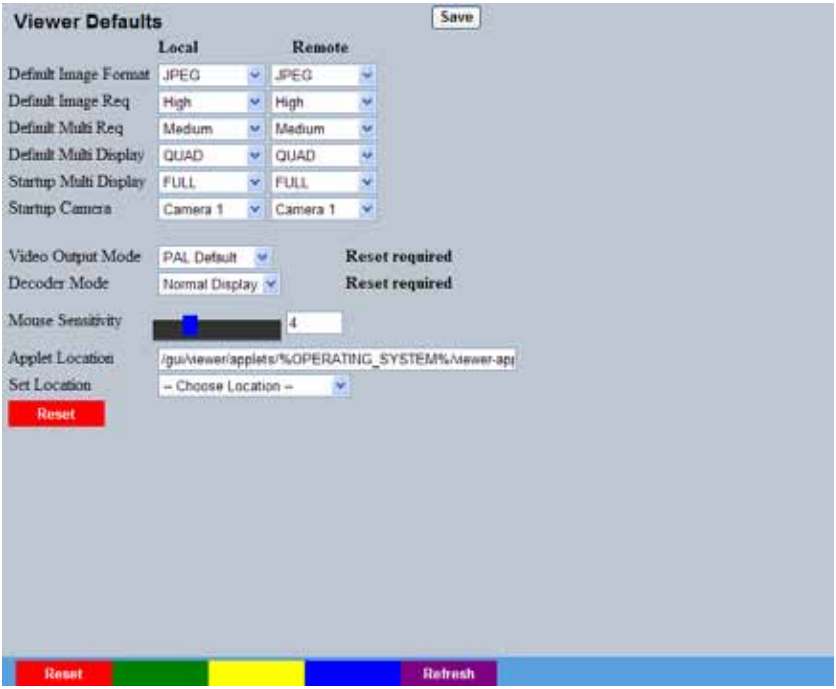
Viewer Defaults

This menu allows configuration of settings for the Viewer function. Refer to 'Operating The Viewer' for more information regarding this feature



Default settings can be configured for accessing the Viewer function via a local monitor and also remotely via a network connection.

Default Image Format	Images from connected cameras 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 format in the Viewer menus can be displayed in either High Medium or Low resolution.
Startup Multi Display	When accessing the Viewer function, select the display format which will initially be displayed.
Startup Camera	When accessing the Viewer function, select the camera image which will initially be displayed. If one of the multi display formats has been selected via the 'Startup Multi Display' option, the camera channel selected here will be displayed in first (top left) position. Subsequent camera channels will be displayed in sequential order.

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Video Output mode	Select the display output that best suits the viewing monitor. Select from: PAL Default PAL Reduced

Note: *It will be necessary to reboot the unit to implement any change to the Video Output Mode. The unit can be rebooted via the Reset (Red) option.*

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 can be accessed, viewed or controlled via Dedicated Micros Pick-a-Point system.

Note: *For further information regarding Dedicated Micros Pick-a-Point system, please contact Dedicated Micros customer services in your region.*

Mouse Sensitivity	The sensitivity settings of the mouse can be adjusted from the least sensitive (1) to the most sensitive (10). The setting can be adjusted via the slidebar or a number entered directly into the accompanying textbox. The default setting is 4.
Applet Location	The location of the unit's Viewer menu applet is displayed. The default location will always be the applet installed on the unit. If accessing multiple units via a remote connection, all can be assigned the same Viewer applet. This will lessen the load time required when accessing different DVRs/Servers. For example, if a local unit and a remote DVR are to be accessed, it is possible to set the Applet location for both DVRs as the local unit. If viewing the unit remotely, Dedicated Micros provide a remote applet. This remote applet can be selected via the 'Set Location' option. The applet is located on the website (www.dedicatedmicros.com/software_release/index_firmware.php). Due to possible bandwith restrictions on the network the DVR is located, using this remote applet may improve data transfer speeds.
Set Location	Select the applet location. Choose from 'Default location' i.e. the applet installed on the unit; or the 'website' option i.e. the remote applet.
Reset (Red)	Select to reset the unit and implement any changes made to the 'Video Output mode' or 'Applet Location' fields.

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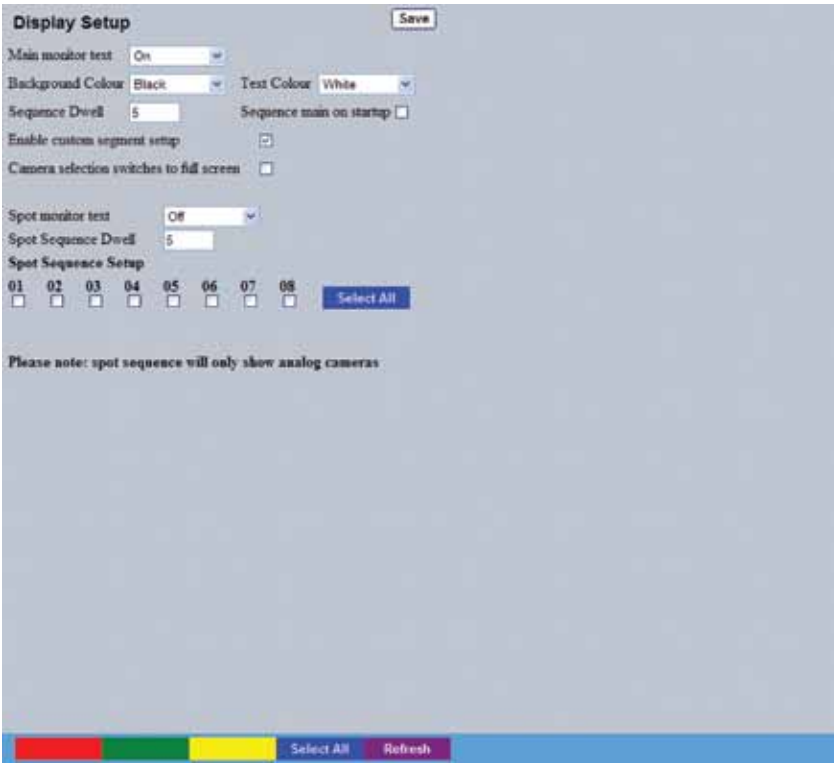
Display

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 Override), camera number and camera title.
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.
Text Colour	The colour of the displayed text can be changed. 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's images are displayed before switching to the next camera in the sequence.
Sequence main on startup	Select to sequence live views from all connected cameras on the main monitor upon system start-up.
Enable custom segment setup	Select to activate the custom segment setup feature. When selected, a user can configure a Quad or Multiscreen layout via the Viewer menu. The configured layout can include any camera in any available segment.
Camera selection switches to full screen	Select to auto switch to full screen mode any camera channel selected from Multi display (selected via the Viewer feature).

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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.
Spot Sequence Dwell	The spot sequence dwell time can be set from 1 to 99 seconds. The dwell time is the period a camera's images are displayed on a connected spot monitor before switching to the next camera in the sequence.
Spot Sequence Setup	All of the unit's camera input channels are shown. To include any of these camera channels in the spot monitor sequence, selected the accompanying tickbox.
Select All (Blue)	Select to add all available cameras to the Spot Monitor Sequence.

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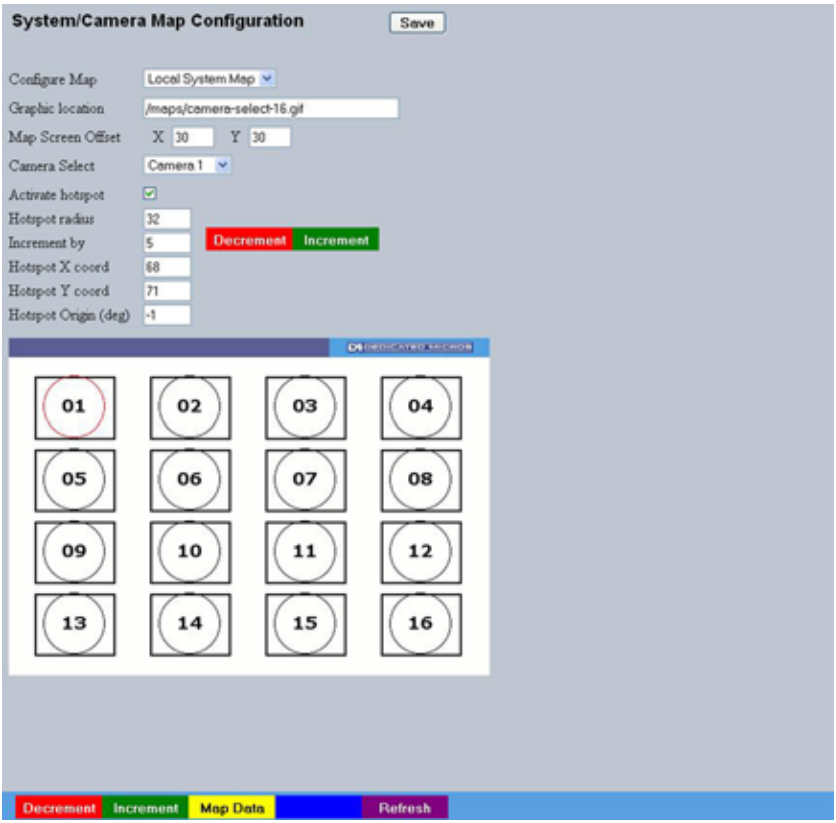
Map Config

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



Configure Map	Leave as 'Local System Map'. This is the map from which connected cameras can be accessed.
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 coordinates represent the top left corner of the map graphic as displayed in the Viewer menu.
Camera Select	Select which camera is to be linked to the created hotspot.
Activate Hotspot	Select to activate and display the camera hotspot.
Hotspot Radius	Enter the radius (in pixels) of the hotspot.
Increment by	If using the Decrement (Red) or Increment (Green) buttons, enter the size (in pixels) that the hotspot will increase/decrease.
Decrement (Red)	Select to reduce size of hotspot.
Increment (Green)	Select to increase size of hotspot.

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Hotspot X coord	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 coord	Use to position the centre of the hotspot along the Y axis e.g. entering 20 would place the hotspot centre 20 pixels 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 Dedicated Micros Oracle Dome camera. Clicking the hotspot will send the Oracle Dome camera to a pre-determined view (absolute positioning). However if the dead centre of the hotspot is selected, the camera will be viewed from its current location. The absolute positioning point will depend on the data entered here. 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 to face in the opposite direction (of its base position) . Refer to the 'Viewer Menus-Program menu' for information on establishing an Origin position for a PTZ camera.

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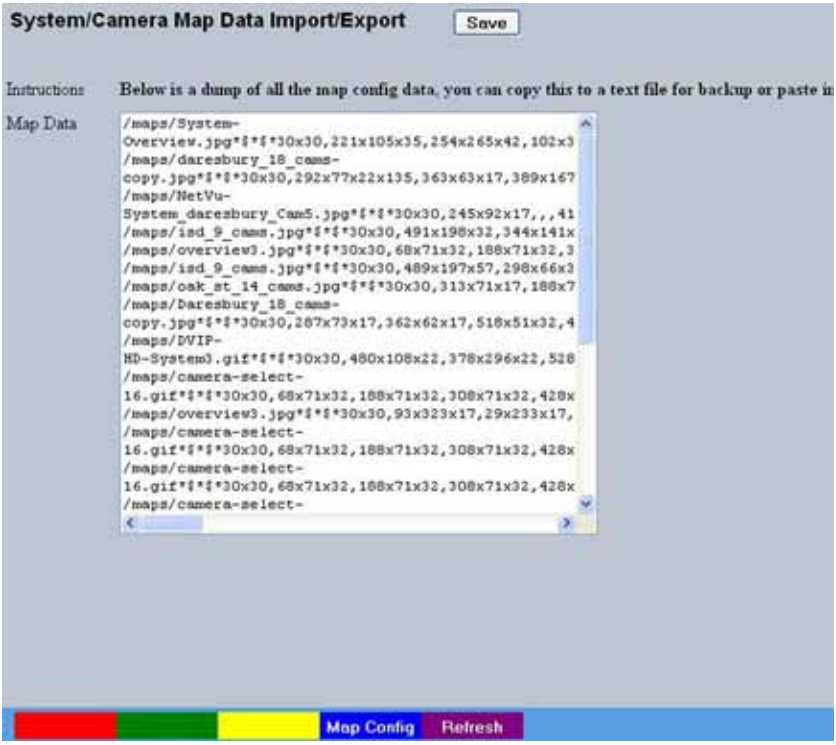
Map Data

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 units.

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



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.*

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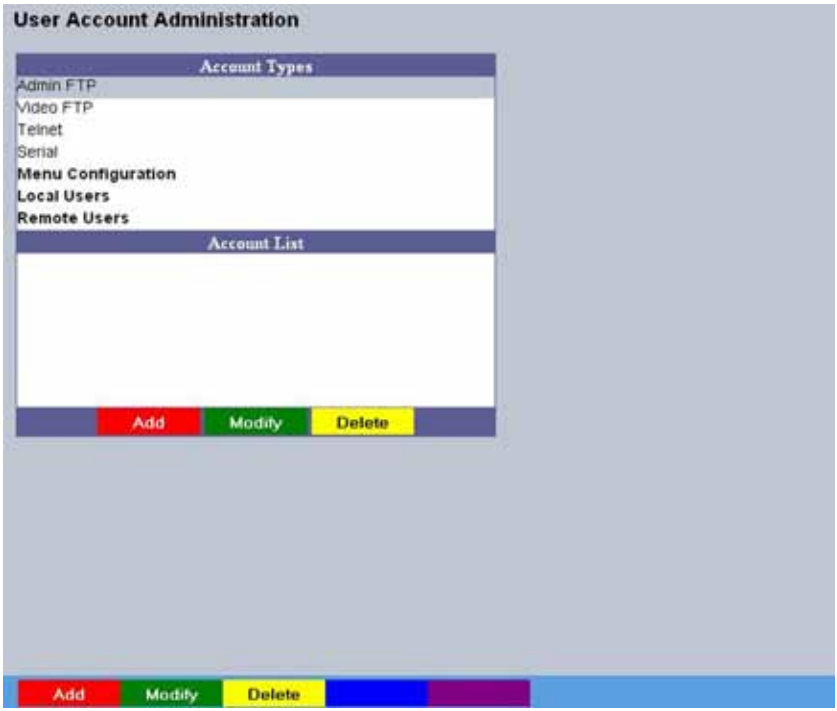
User Accounts

The unit can protect configuration procedures by limiting access via usernames and passwords.



Account Types

The available account types for which users and passwords can be assigned privileges are:

- Admin FTP

  Assigning username and password requirements for the Admin FTP function will limit access to the unit via an FTP connection.

- Video FTP

  Assigning username and password requirements for the Video FTP function will limit access to the Video FTP archiving feature (used with NetVu ObserVer).

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- Telnet

  Assigning username and password requirements for Telnet connections will limit Telnet access to the unit (Telnet can be used to upgrade the unit).

- Serial

  Assigning username and password requirements for Serial connections will limit access via a Serial link.

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- Menu Configuration

  Assigning Menu Configuration access privileges will limit access to the Configuration menus when viewed locally. When implemented, the user will be prompted for a username and password before access to the Configuration menus (via the main menu) will be granted.

- Local Users

  Assigning Local Users access privileges will limit access to the Viewer pages for local users. When implemented, the local user will be prompted for a username and password before access to the Viewer pages (via the main menu) will be granted.

- Remote Users

  Assigning Remote Users access privileges will limit access to the Viewer pages for remote users. When implemented, the remote user will be prompted for a username and password before access to the Viewer pages (via the main menu) will be granted.

When granting access privileges to Local and Remote Users, it is possible to limit access to specific cameras. Using the Camera Selection segment of the Add New Account menu, enter those cameras for which access will be permitted. Select the cameras in accordance with the input channel they're connected to on the rear of the unit. For example, if wanting to allow access to camera 1 to 3 inclusive, enter: 1-3. If wanting to grant access to cameras 1,3 and 6, enter 1,3,6. If no camera data is entered, access will be allowed to all connected cameras in both live and playback modes.

Note: *There are no default usernames and passwords for any of the Account Types. If none are assigned, access will be granted to all users and no request for a username and password will be made.*

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.

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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.

The Mirroring page allows a displayed camera image to be inverted by the horizontal or vertical axis (or both).

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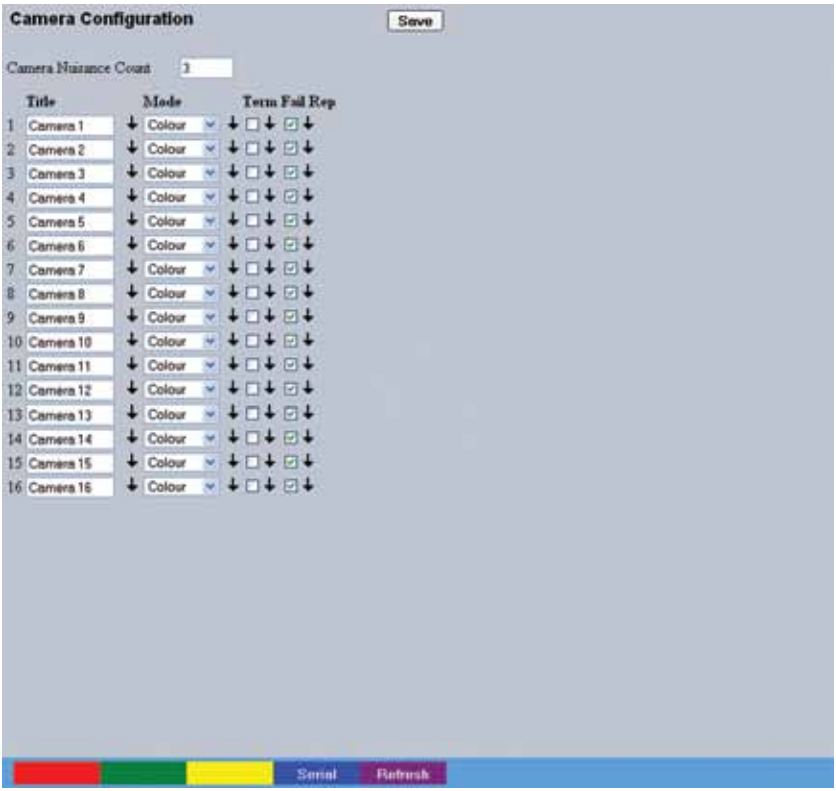
Camera

This menu allows the configuration of active camera channels.



Camera Nuisance Count — If a camera is intermittently losing connection (failing). The unit can be set to ignore incoming data from that camera (after the specified number of failures entered here). If the camera connection is restored and does not fail for 1 hour, the camera will be noted as operating correctly and the Nuisance Count reset.

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 — When selected, the unit will automatically terminate the camera input with 75Ω.

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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 all cameras below the clicked arrow.*

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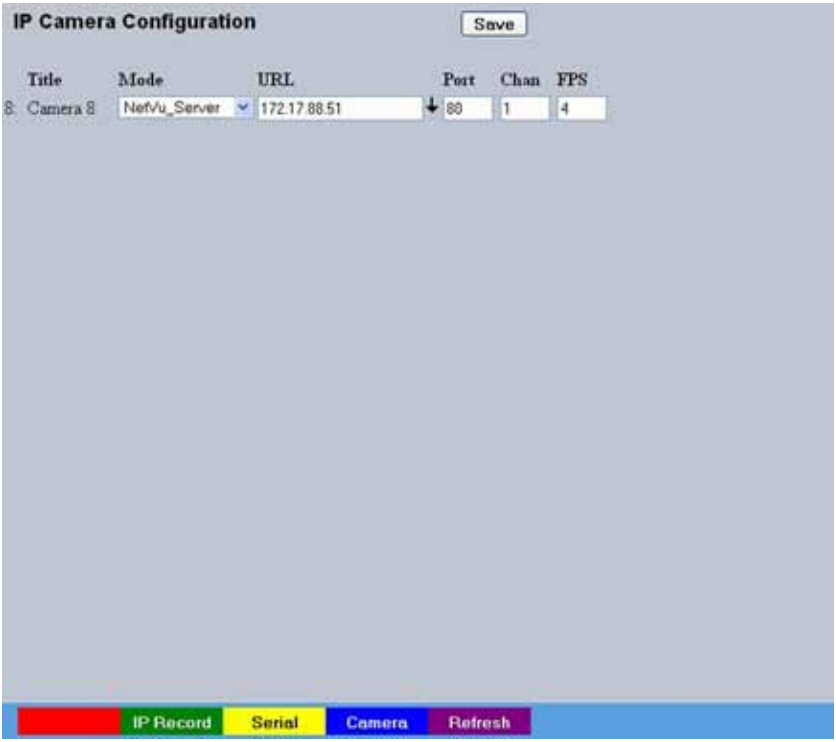
IP Camera

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 CamVu 2000, select 'NetVu Camera'.
URL	Edit the URL address of the IP 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.

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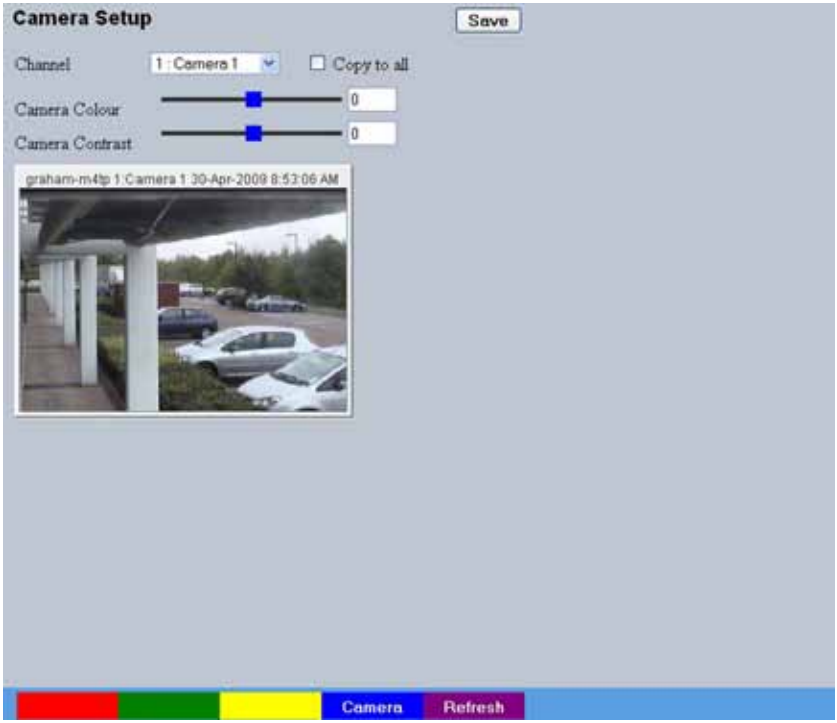
Camera Setup

This menu allows the colour and contrast settings for each individual camera to be adjusted.



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	Select a colour value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox.
Camera Contrast	Select a contrast value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox.

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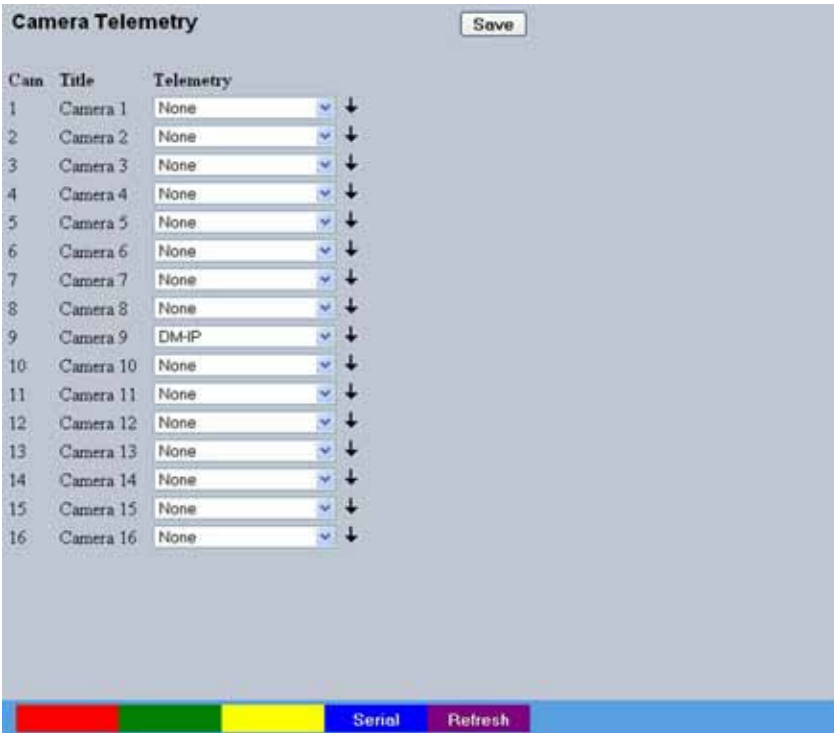
Camera Telemetry

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



Cam	Lists available camera channels.
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 F' 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 all cameras below the clicked arrow*

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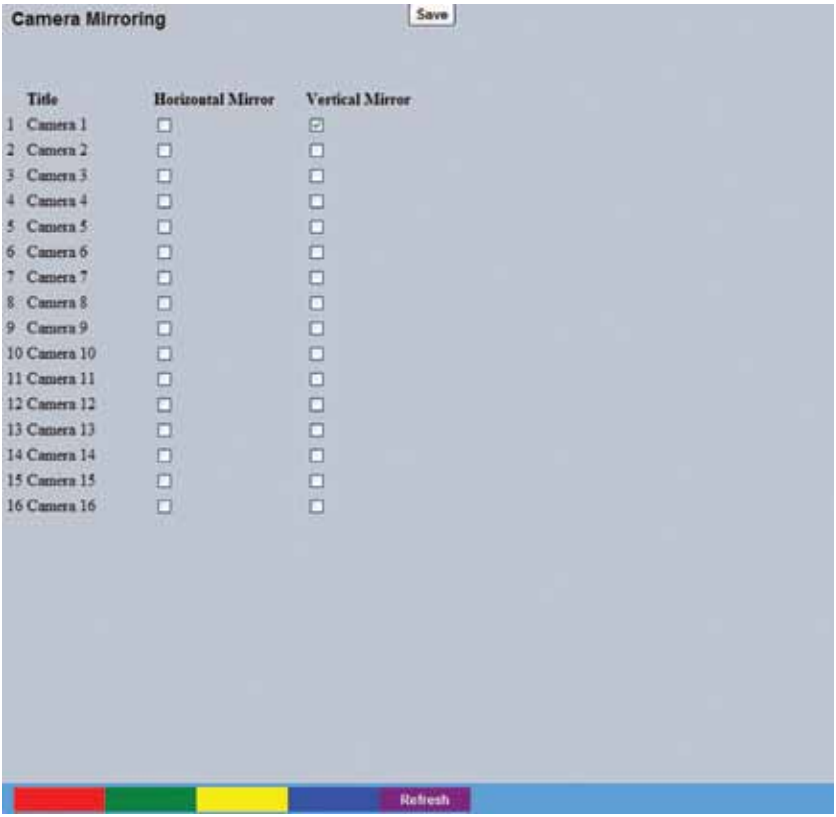
Mirroring

This menu allows a displayed camera image to be inverted by the horizontal or vertical axis (or both).

Note: *Inverted images will only appear inverted when viewed live. Images will be recorded on their 'normal' axis.*

IMPORTANT: Images will only appear inverted when viewed on a local monitor and not remotely.



Title	Displays the camera title.
Horizontal Mirror	Select to invert the relevant camera's image by the Horizontal axis.
Vertical Mirror	Select to invert the relevant camera's image by the Vertical axis.

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Record Settings

The Record Settings menus allow configuration of the unit's 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 record 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 options.

The IP 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 RVRC page is used to allow a user to temporarily force the System in to the configured set/unset/override mode. The user will be required to enter their name and all activity will be logged.

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.

The AoE Setup page allows configuration of the units ATA over Ethernet (AoE) function. AoE is a network protocol designed for simple high-performance access of storage devices over Ethernet networks. Importantly the external storage device must be located on the same network as the unit.

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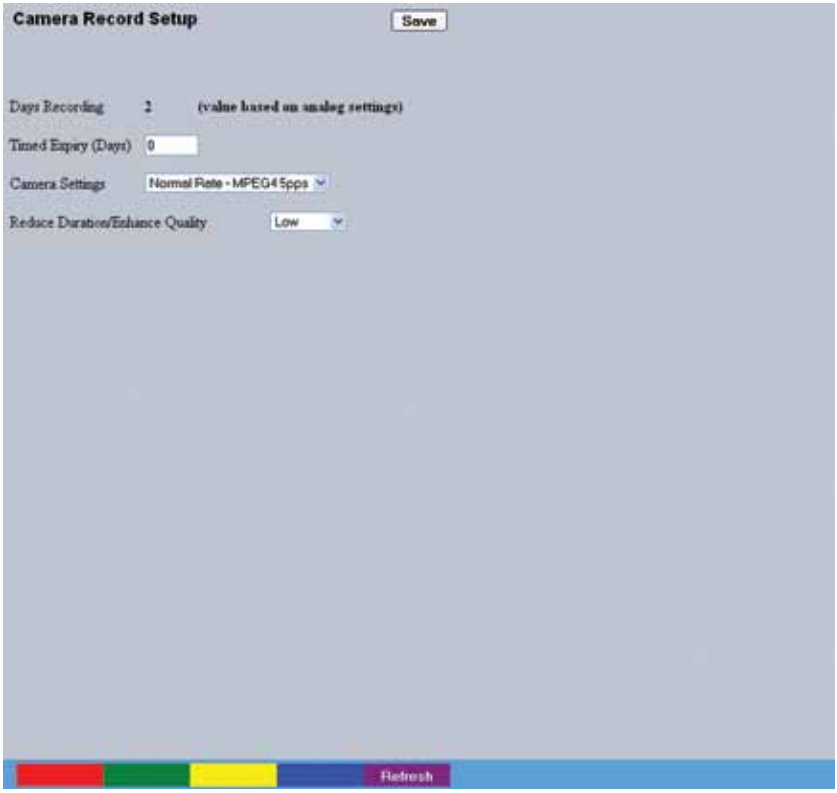
Record

The unit has a range of pre-defined configurations available. As standard the unit can record at 3pps MPEG4. Alternatively the unit can be configured for 1pps JPEG recording on each camera or for **Multi***Mode operation (note that this will result in the total record duration being determined by the time period the unit is in alarm).*



Days Recording	Displays the record duration possible using the current configuration.
Timed Expiry	If required, all stored recorded video can be permanently deleted after a set number of days. Set to '0' to de-activate this function
Camera Settings	Choose the rate of non alarm recording to be used from the range of preset recording profiles. Select from Normal Rate MPEG4 3pps or Normal Rate JPEG 1pps.
Record Duration/Enhance Quality	The recording duration can be limited to a set number of days (Low, Medium or High); allowing the recording quality to be enhanced for a shorter storage period.

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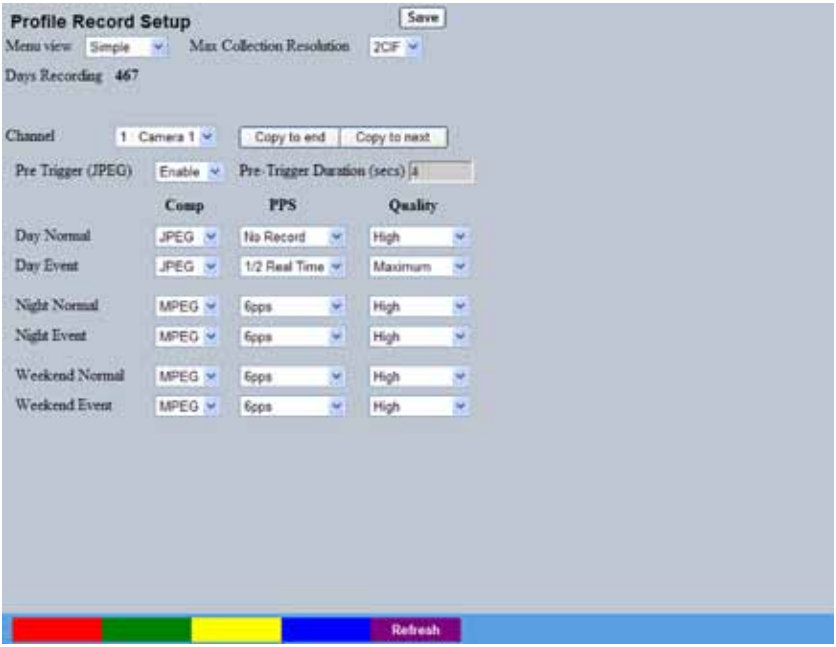
Profile Record

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 override 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 Advanced mode offering greater opportunities to dynamically edit individual cameras recording capabilities.*

Simple Record



Menu View	Switch to the Advanced Profile Record menu.
Max Collection Resolution	Setting the Max Collection Resolution 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 resolution settings will significantly lessen the storage capacity requirements.
Days Recording	Displays the record duration possible using the current configuration.
Channel	Enables selection of a specific camera for editing.
Copy To End	Select to copy the current profile record settings to all camera channels.
Copy To Next	Select to copy the current profile record settings to the next camera channel.

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Pre-Trigger (JPEG)	Enablng the Pre-Trigger feature will buffer and store alarm recording prior to an event trigger (in JPEG format). It will use the maximum available memory dependent on other cameras requirements of the buffer space. Select 'Enable' to activate.

Note: *It is recommended that the Pre-Alarm option in the 'Alarm Settings-Zone Input' menu be set to the same value as the Pre-Trigger setting. This will ensure successful playback of high quality Pre-Trigger images. High quality pre-trigger images will only playback properly if review (playback) starts prior to the pre-trigger initiation.*

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) option allows either 6, 5, 2, 1, 0.5, 0.25 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, Very High, High, Medium, or Low. Select User Defined to use settings established in the Advance Profile Record menu.

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

Advanced Record

Menu View — Switch to the Simple Profile Record menu.

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 'Save' option. It will then be possible to return to the Profile Record menu and access Simple Record.*

Max Collection Resolution	Setting the Max Collection Resolution 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 resolution settings will significantly lessen the storage capacity requirements.
Days Recording	Displays the record duration possible using the current configuration.
Channel	Enables selection of a specific camera for editing.
Copy To End	Select to copy the current profile record settings to all camera channels.
Copy To Next	Select to copy the current profile record settings to the next camera channel.
JPEG Pre-Trigger Rate (pps)	The Pre-Trigger feature will buffer and store alarm recording prior to an event trigger (in JPEG format). It will use the maximum available memory dependent on other cameras requirements of the buffer space. Enter the record rate (in pps).

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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.

Note: *Unset, Set and Override modes can be given more recognisable titles i.e. Day, Night, Weekend via the Schedule menu (Record Settings->Schedule).*

Comp	Select image compression format (MPEG or JPEG).
Res	Select image resolution format (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	Select the number of pictures recorded per second.
GOP	If using MPEG4 recording, select the number of images recorded within a GOP (Group of Pictures). A GOP consists of an I-Frame (keyframe) and following P frames.

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IP Record

This menu enables the configuration of IP camera record settings.

Note: *There is only normal 'non event' recording 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.

Note: *Unset, Set and Override modes can be given more recognisable titles i.e. Day, Night, Weekend via the Schedule menu (Record Settings->Schedule).*

Comp	Select image compression format (MPEG or JPEG).
Res	For both MPEG and JPEG recording, select either High, Medium or Low quality resolution settings.

Note: *To view a local IP camera 'live', IP recording should be set to MPEG.*

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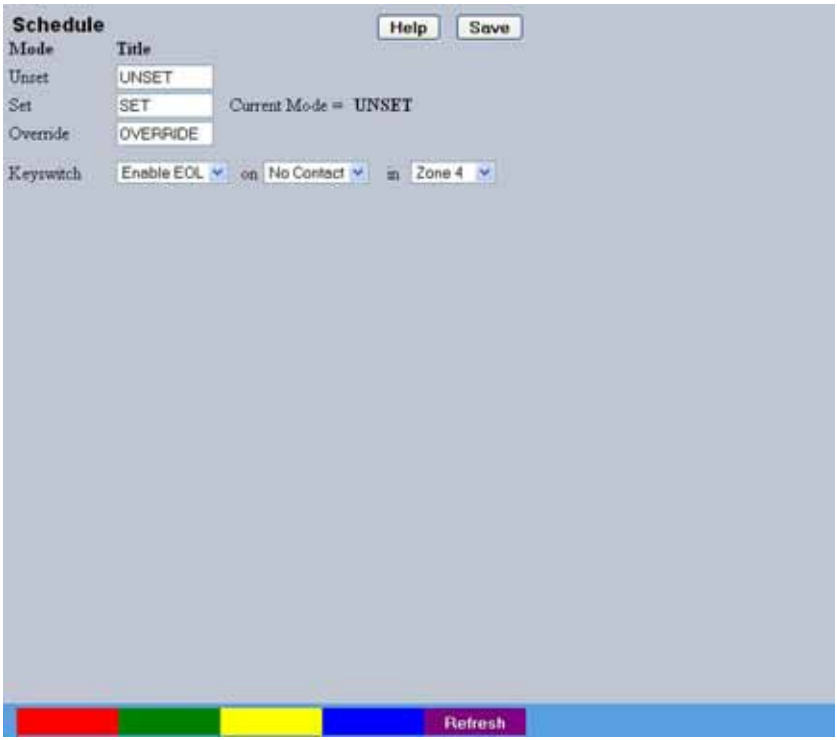
Schedule

This menu allows the Schedule function to be configured. This 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 in 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.

Note: *If Keyswitch is Enabled, the Day Time and Night Time options will not be displayed. The additional Keyswitch options will instead be displayed.*



Mode/Title	Enables a name to be entered for Unset, Set and Override mode.

Note: *Any changes to Mode titles here will affect the mode names displayed in the Profile Record, IP Record and Zone Input menu pages.*

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 Unset mode will begin.
Night Time	Enter the time (using the 24hr clock) when Set mode will begin.
Keyswitch	A Keyswitch can be used to switch the recording profile (Unset/Set).

Note: *When the Keyswitch option is set to 'Enabled'. It is necessary to save (or exit and return to) the menu. The additional Keyswitch options will then be displayed.*

Enable-N/O	Select if the Keyswitch is to be normally open (UNSET). Then choose a contact to be used in a specific zone as the Keyswitch.

Enable-N/C	Select if the Keyswitch is to be normally closed (SET). Then choose a contact to be used in a specific zone as the Keyswitch.
Enable EOL	Select to configure the Keyswitch for EOL. The End Of Line (EOL) option enables the Keyswitch 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.

***With** Keyswitch Disabled*

Day	Specifies which Day of the week is being configured

NOTE: *The next two descriptions utilise the standard name settings for the profiles (SET, UNSET). If these names have been changed on the 'Schedule' page, these menu options will display the user configured names.*

UNSET Time	Specifies what time in format HH:MM the UNSET recording settings, configured on the Profile Recording page, will become operational
SET Time	Specifies what time in format HH:MM the SET recording settings, configured on the Profile Recording page, will become operational

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 all cameras below the clicked arrow.*

Note: *To disable one day, set both times to 00.00. To have the profile recording all 24 hours of a day, set both times to 24.00.*

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RVRC

This menu allows a user to temporarily switch the unit's system state into set/unset/override mode. The user will be required to enter their name and also the intended override duration. The action will be logged.

Note: *Refer to the Schedule menu for details of how to configure Set, Unset and Override modes: Record Settings->Schedule.*

Current System Time	The unit's current date and time information will be displayed. This will be logged with any override action.
Current PC Time	The current date and time information of the PC currently being used to view the webpages will be displayed. This will be logged with any override action.
Current system state	The current system state will be displayed i.e. Set, Unset or Override.

Note: *The system state names displayed here will depend on those entered via the Schedule menu: Record Settings->Schedule.*

Override duration (minutes)	Enter a time period for the override procedure. After this time period, the system state will return to that configured via the Schedule menu (for the current time).
Enter Your Name	Enter your recognised user name. This will be logged.

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Force UNSET(Green)	Select to switch to Unset mode.
Force SET (Yellow)	Select to switch to Set mode.
Force OVERRIDE (Blue)	Select to switch to Override mode.

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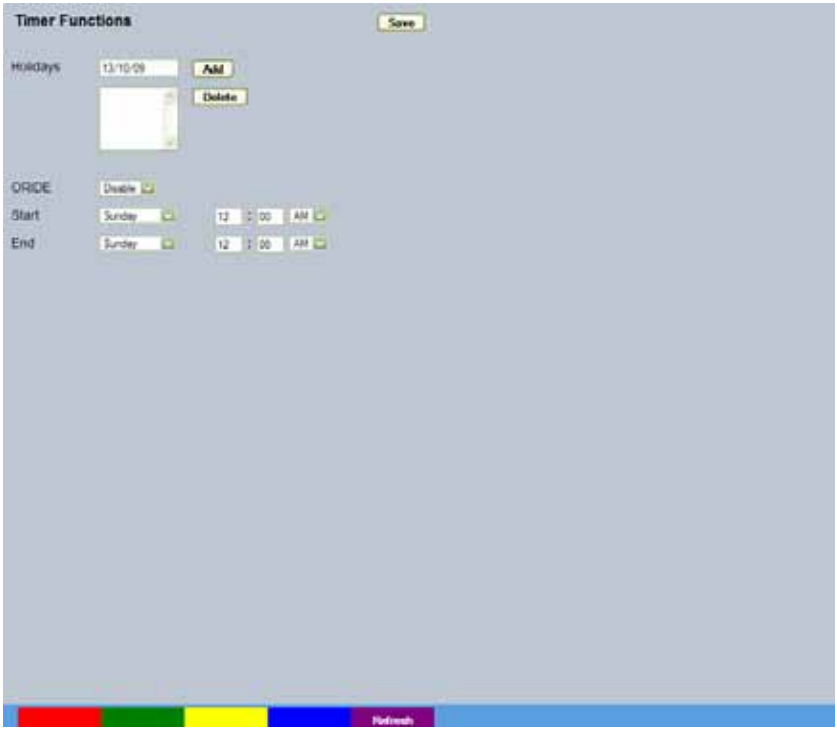
Holiday & Weekend

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

IMPORTANT: *Holiday and Weekend settings cannot be entered when a Keyswitch has been enabled in the Record Settings->Schedule menu.*



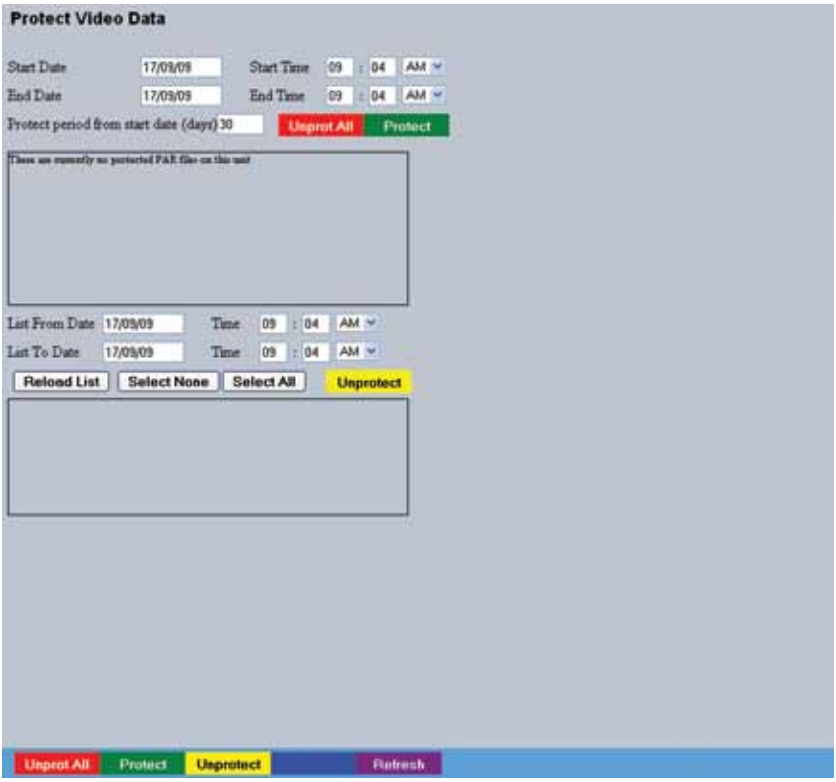
Holidays	Enter a date and press the Add button. The date will be added to the Holiday list. To delete, highlight and select Delete.
Weekends	Select 'Enable' to activate the Weekend function. Set mode will now be active for the dates outlined below.
Start	Select a Start day and time for Weekend mode.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

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

Protect Video

This menu allows the unit to automatically protect and retain recorded data. Previously saved data can also be unprotected. Enter a start and end time and select 'Reload List' . All saved video files from the chosen time period will be shown in the upper textbox. These recorded 'PAR' files can then be selected and protected via their accompanying checkboxes and the Protect option. Selected video files can also be unprotected via the Unprotect option.

The lower textbox provides a status report detailing which video files have been protected/unprotected.



Start Date	Enter a start date to protect video.
Start Time	Enter a start time to protect video.
End Date	Enter an end date to protect video.
End Time	Enter an end time to protect video.
Protect Length (days)	Enter the number of days that selected files will be protected for.
Protect (Green)	Select this option to protect recorded video for the selected time period(s).
Unprotect All (Red)	Select this option to unprotect all recorded video from the list.
List From Date/Time	This dialog box allows a search to be made within the protected video list starting from a specific Time and Date.
List To Date/Time	This dialog box allows a search within the protected video list to conclude at a specific Time and Date.

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Reload List	This will refresh the video list according to the selections made in the Start Time/Date and End Time/Date dialog boxes.
Select None	This de-selects all the available video files.
Select All	This selects all the available video files.
Unprotect (Yellow)	Select this option to unprotect recorded video for the selected time period(s).

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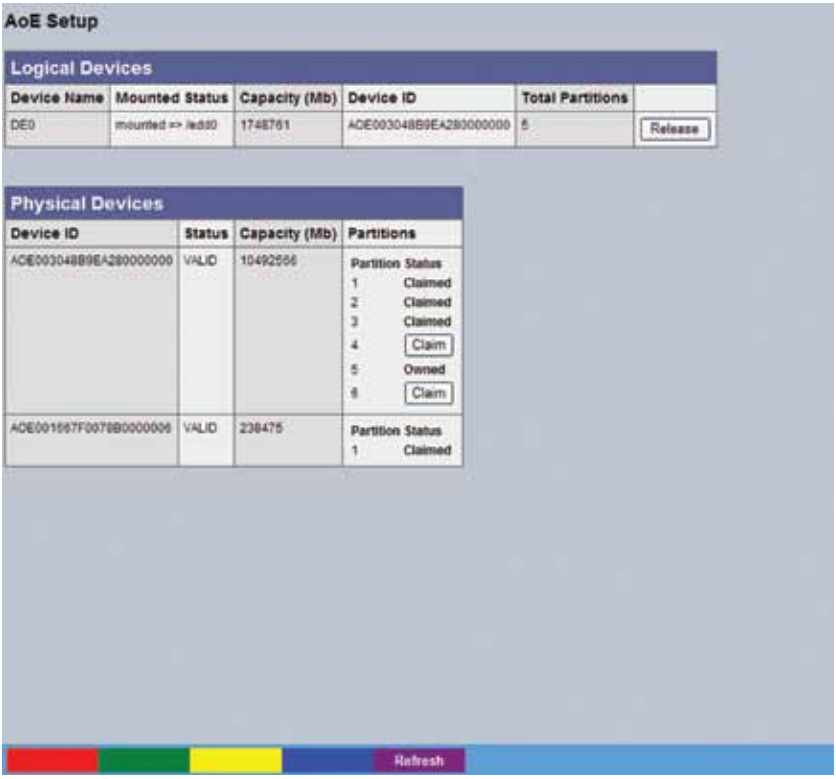
AoE Setup

This menu allows configuration of the units ATA over Ethernet (AoE) function. AoE is a network protocol designed for simple high-performance access of storage devices over Ethernet networks. Importantly the external storage device must be located on the same network as the unit. AoE does not rely on network layers such as IP and TCP, making it non routable i.e. routers cannot be used to forward a packet across disparate networks. AoE packets can only travel within a single local Ethernet storage area network (adds a physical layer of security to the information). The stored video can only be accessed by plugging directly into an ethernet socket in the same LAN as the host. This means AoE cannot be accessed over the Internet or other IP networks, but makes AoE more lightweight (with less load on the host), easier to implement, provides a layer of inherent security, and offers higher performance.

Note: *Refer to Viewer Menu->Copy Menu for guidance on exporting Event data via the unit's USB port.*



Logical Devices	Connected AOE Devices - Any devices in this panel are being used by the unit to store data. They can be freed by clicking on the Release button.
Physical Devices	Available AOE Devices - Any devices in this panel are available on the network. They can be added to the storage capability of this unit by 'claiming' the storage. Unavailable storage is listed as Owned. Claimed storage capacity can be 'released' in the top panel.

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Alarm Settings

The Alarm Settings menus allow configuration of the unit's 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 6 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 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 Masked Camera Detection page allows cameras to be enabled for 'masked' detection based on a threshold contact value and dwell time.

The Data Logging page enables operation of alarm inputs to be logged to a data file.

The Accelerometer page allows set up and orientation of the unit's 3-axis accelerometer (used for measuring acceleration, braking, turning forces and vertical shock).

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

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 create a database entry or increase the recording rate.

The VMD Configuration page enables the unit's VMD (Video Motion Detection) to be set-up. VMD allows a camera to automatically detect if there is any movement/changes within specific areas of the video scene.

The Global Actions page allows the two onboard relay connections and global relay settings to be configured.

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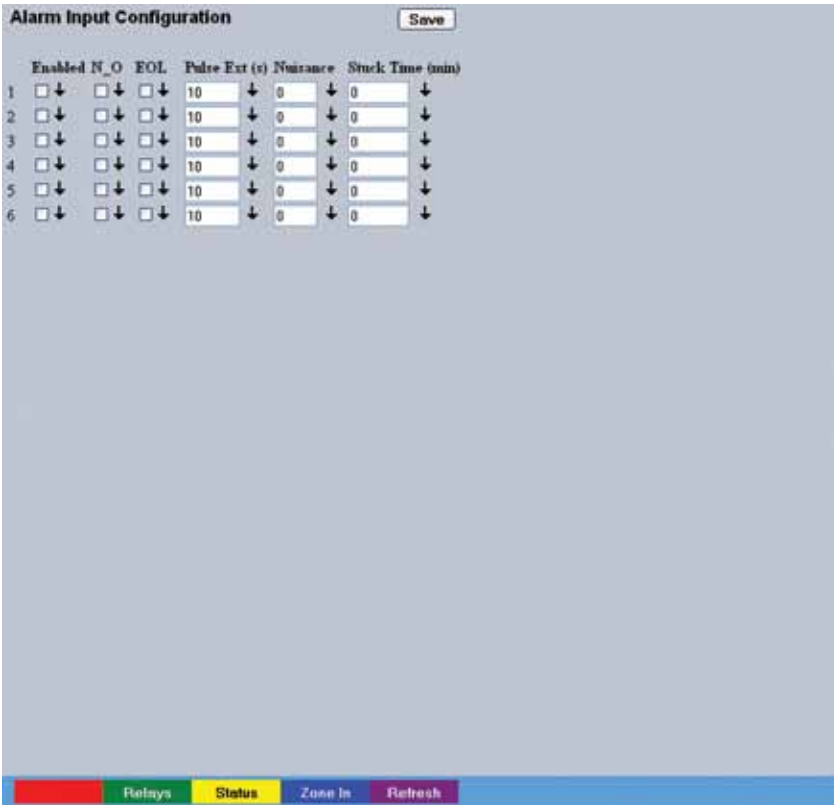
Alarm Input

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



Number	This identifies which input is being configured. The unit supports 6 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)	N_O indicates the non-alarm state of the input. Tick the N_O checkbox to set the corresponding input to Normally Open. The alarm will then trigger when the input is closed (shorted). If left as Normally Closed (the default setting), the alarm will trigger when the input is opened.

Note: *If EOL alarms are to be used, this option should not be selected i.e. leave set as Normally Closed.*

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.

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Pulse Ext (s)	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 seconds 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 number of times entered here, 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 (min)	If any of the alarms/detectors are active for a period longer than specified here, they 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.*

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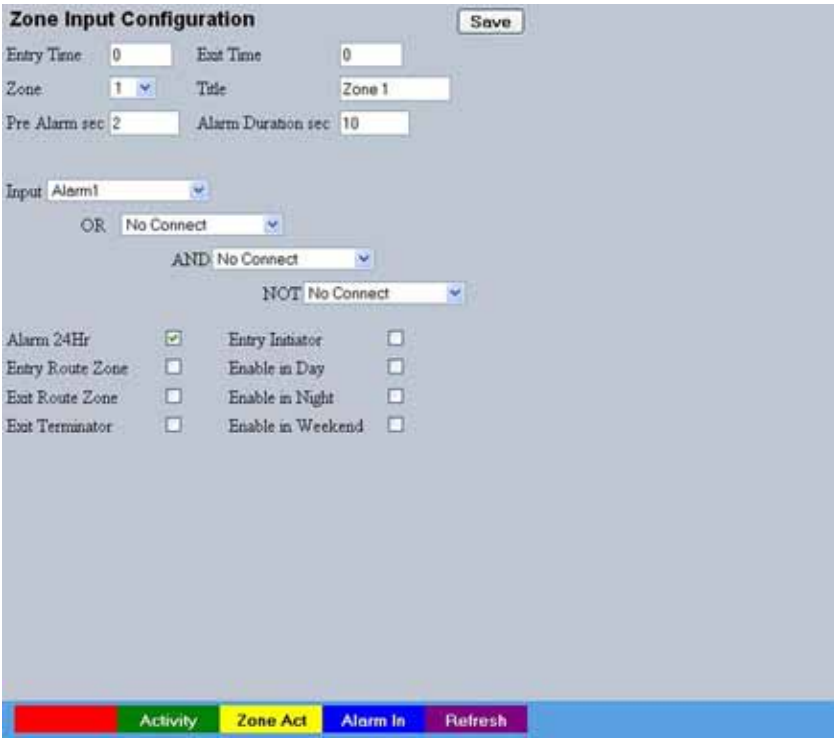
Zone Input

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 can be established to logically groups alarms and initiate 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.

Note: *It is recommended that the Pre-Alarm option be set to the same value as the Pre-Trigger setting in the "Profile Record" menu. This will ensure successful playback of high quality Pre-Trigger images. High quality pre-trigger images will only playback properly if review (playback) starts prior to the pre-trigger initiation.*

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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 1-6, Activity 1-16, Preset 1-4, Disk Low, Disk Full, Panic, Archiving Slow, Archiving Fault, Virtual 1-16, and Keyword Channel 1-8 (which will trigger the Alarm if any or the programmed keywords are detected on the selected channel).
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 zone 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 zone 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.

Note: *Unset, Set and Override modes can be given more recognisable titles i.e. Day, Night, Weekend via the Schedule menu (Record Settings->Schedule).*

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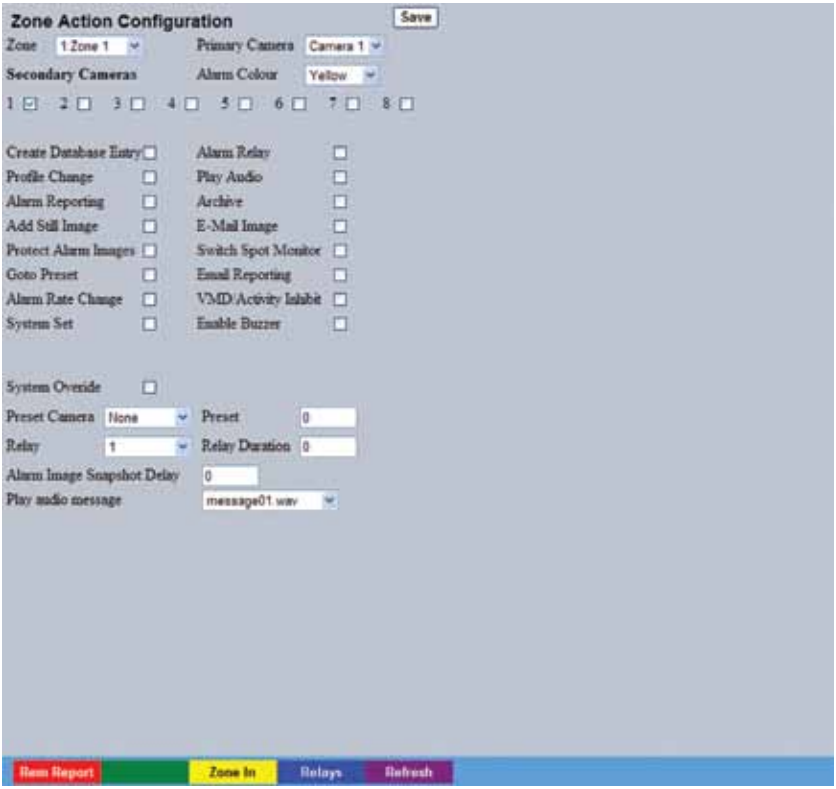
Zone Actions

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.



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 primary camera will be displayed 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.
Alarm Colour	This displays the local alarm text in the selected colour and can be useful in prioritising alarms. Options available are Red, Green, Blue, Yellow, Cyan and Magenta.
Create Database Entry	An alarm activation will be added to the database. The zone title will be used as part of the entry information.
Alarm Relay	Select to trigger an alarm relay following zone activation. Select the specific relay via the 'Relay' option.
Profile Change	Select to enable the unit to switch from Normal to Event recording following alarm zone activation.

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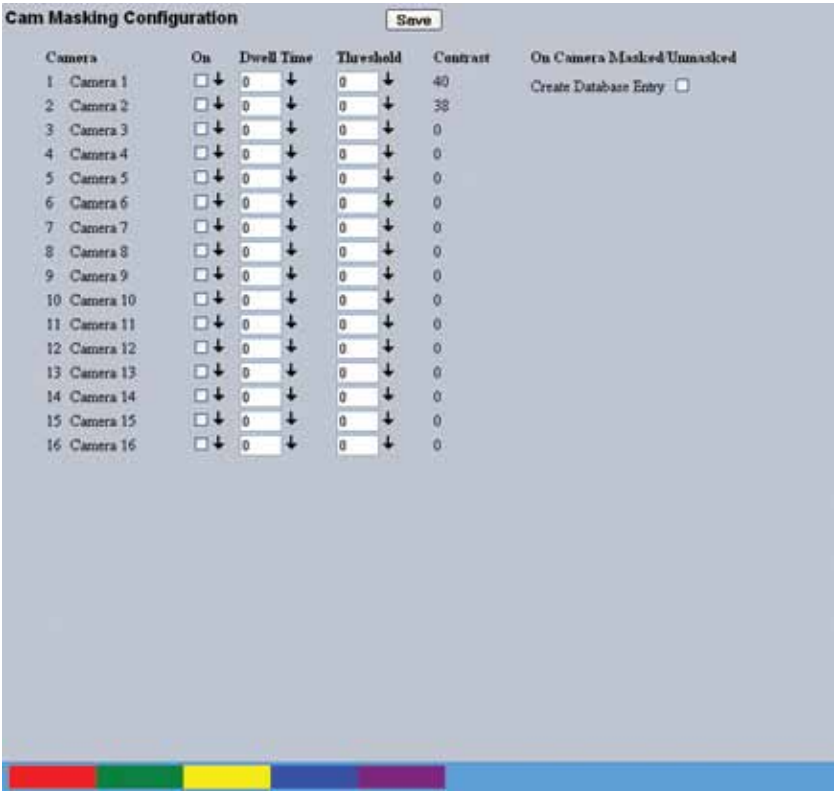
Play Audio	It is possible to play associated audio upon zone alarm activation.
Alarm Reporting	This must be enabled to allow the unit to send an alarm notification to an external destination i.e. an RVRC reporting via NetVu ObserVer.
Archive	Select to ensure the unit automatically downloads alarm images via an FTP connection to an FTP server.
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.
Email Image	If this option is selected, a JPEG will be added to the reporting email (if Email Reporting is selected).
Protect alarm Images	Alarm images can automatically be protected from being overwritten.
Switch Spot Monitor	Select to display the alarm zone Primary camera on the Spot Monitor.
Goto Preset	It is possible to action a camera to automatically be sent to a preset position when an alarm is triggered.
Alarm Rate Change	Select to change to the alarm mode recording rate on zone action.
Email Reporting	The unit can send an email when an alarm is detected, refer to 'Network-E-mail' for more information.
VMD/Activity Inhibit	Select to inhibit (ignore) the VMD/Activity detection feature. Refer to 'Activity Setup' for more information.
System Set	Select to change to the 'Set' mode recording rate on zone action.
Enable Buzzer	Select to activate the unit's internal buzzer upon alarm receipt.
System Override	Select to change to the 'Override' mode recording rate on zone action.
Preset Camera	The preset camera is the camera which will be sent to a designated preset position upon alarm activation.
Preset	Enter the preset position number for the selected camera here, refer to 'Unit Operation-PTZ Program' for more information on establishing camera preset positions.
Relay	Select an onboard or external relay to automatically close on receipt of an alarm.
Relay Duration	Enter (in seconds) how long the relay is to remain closed.
Alarm Image Snapshot Delay	This figure allows a delay to be introduced before an alarm snapshot is taken. This is used when the alarm relates to a PTZ camera which has to travel to a preset position.
Play Audio Message	Following a Zone alarm trigger, a specific audio message can be played.

IMPORTANT: *Audio messages must be uploaded to the unit in mono 8k wav format only. The following naming convention must be used: messageXX.wav i.e. message00.wav, message01.wav etc. An FTP client should be used to place the wav files in the following folder: \mdd0\messages folder .*

Masked Cam Detection

TransVu has the capability to identify if a video input has been covered (by hand, spray paint, etc.) to prevent video images being viewed and recorded. The Camera Masking option identifies normal levels of contrast and uses them as a base line. It then compares these against a user defined minimum contrast level. If the video input goes below this user defined level for a specified time, an event is generated on the unit. This web page allows the masking feature to be configured.



Camera	Lists available camera channels.
On	Select to use Masked Detection on relevant camera.
Dwell Time	Enter a time (in seconds). If camera masking is detected for longer than the time period entered here, an event will be generated.
Threshold	Enter a contrast level threshold. If the camera contrast level drops below this threshold, the dwell time setting will activate.
Contrast	Details the current contrast level from each connected camera.
Create Database Entry	Select to create a database entry for any Masked Camera Detection activity.

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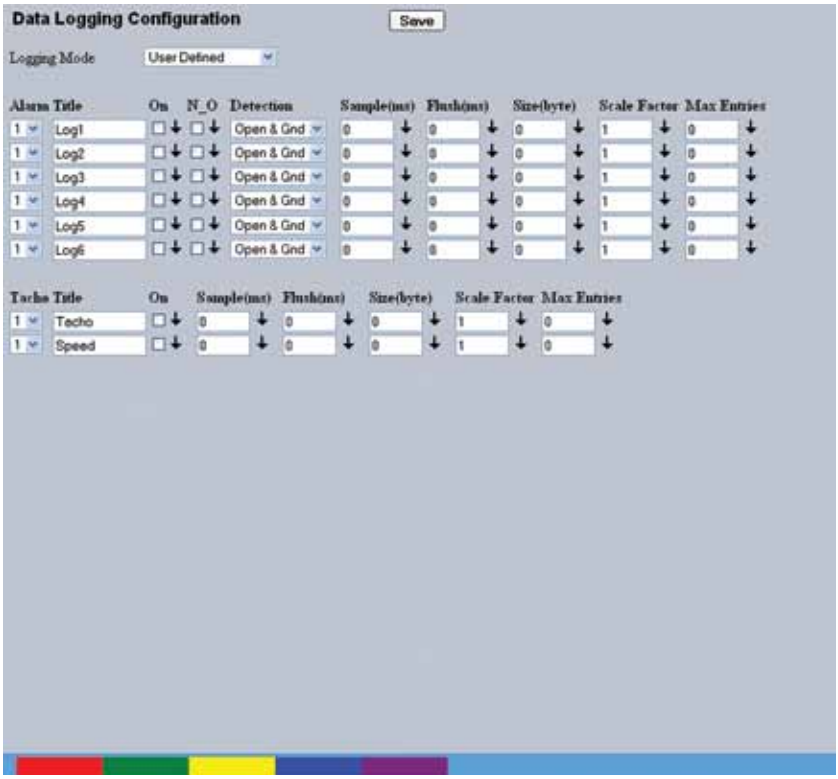
Data Logging

This menu allows an image data log to be created and the title of the alarm to appear in the image header.



Logging Mode	Various logging modes are available. Select either ‘Vehicle Logging’, ‘Vehicle Analysis’ or ‘Simulated Logging’ to display default settings for each specific logging task. Selecting ‘User Defined’ allows the user to configure parameters as required.
Alarm	Alarms can be numbered 1-6
Channel	Select from Panic, Brake, Accelerator, Turn Left, Turn Right, Accel and Tacho.
On	Select to enable each individual alarm.
N_O	Select to switch the default mode to N_O (Normally Open)
Detection	Select detection to either ‘Open circuit going to Ground’ or ‘Open Circuit and +v’.
Sample(ms)	Select how often the data is sampled (in thousands of a second)
Flush(ms)	Enter how often data is to be ‘flushed’ from the file
Size(byte)	Size of data sample
Scale Factor	Applies to Tach only
Max Entries	Select the maximum size of the file
Tach	Tach alarms can be numbered 1-2

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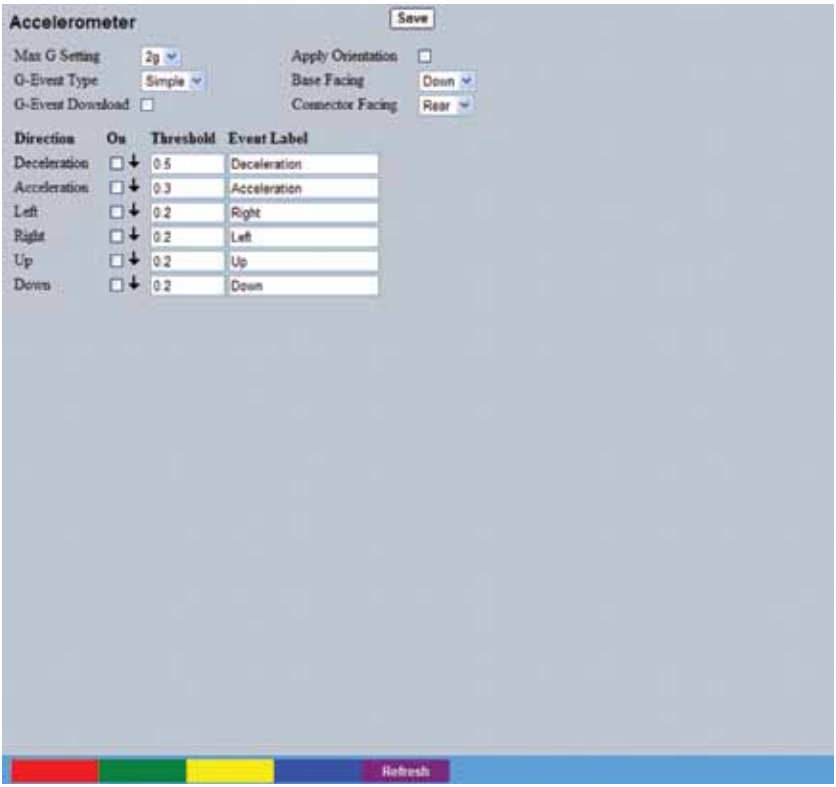
Accelerometer

The unit is fitted with a 3-axis accelerometer for measuring Acceleration/Braking, Turning Forces and Vertical Shock (speed bumps, kerb strikes etc.)



Max G Setting	Select from 2g or 8g (defaut setting is 2g).
Apply Orientation	Enable orientation settings (entered below).
G-Event Type	Select to download either all ‘Simple’ G-Event data or by ‘Zone’.
Base Facing	Select where the base of the unit is position i.e. if the unit’s base is facing the floor, select ‘Down’.
G-Event Download	Select to auto download all G-Event data.
Connector Facing	Select which direction the units connection ports are facing.
On	Check this option to activate each accompanying ‘Direction’ configuration.
Deceleration	Enter the G limit for a deceleration event to be logged. For example an emergency stop will register approx 0.7g plus.
Acceleration	Enter the G limit for a acceleration event to be logged. For example a fast saloon car may register approx 0.5g.
Left	Enter the G limit for a tight left turn event to be logged. For example a fast saloon car may register approx 0.6g on such a manoeuvre.

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Right	Enter the G limit for a tight right turn event to be logged. For example a fast saloon car may register approx 0.6g on such a manoeuvre.
Up	Enter the G limit for an Up direction ‘shock’ to logged. Such incidents can reach and exceed 2g.
Down	Enter the G limit for a Down direction ‘shock’ to logged. Such incidents can reach and exceed 2g
Threshold	The limit above which the force in question will need to exceed to trigger any one event.
Event Label	Enter a name to appear in the database when responding to a G event.

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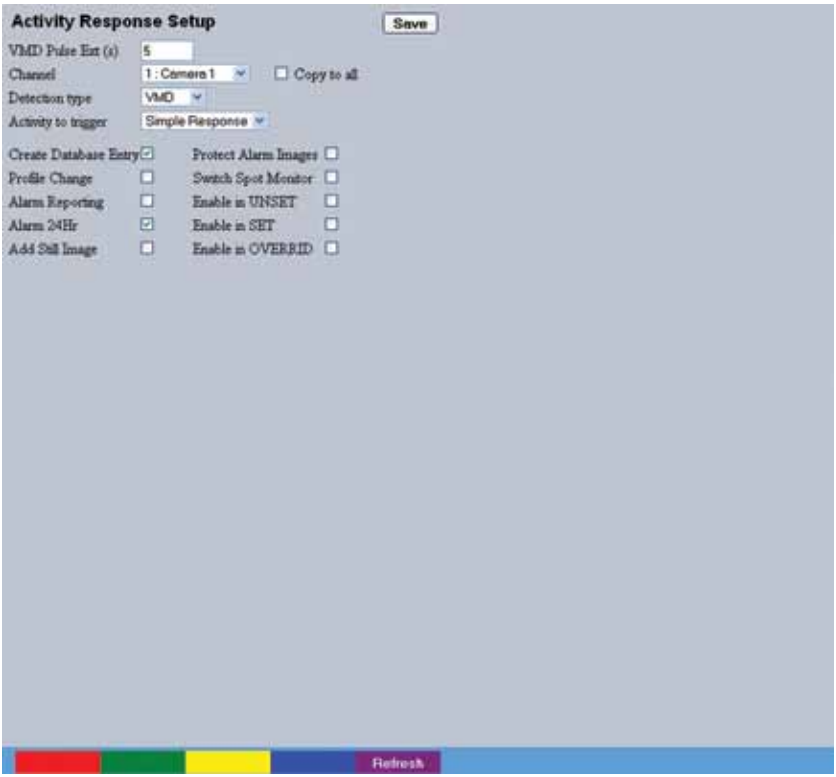
VMD/Activity Response Setup

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



VMD Pulse Extension	The pulse extension extends the trigger period to avoid double triggers of VMD occurring, i.e. If a second incident of VMD is received, after the first alarm is finished but within this period, the unit will not create a new event.
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.
Detection Type	Each camera input can be configured for either 'VMD' or 'Activity' detection. To assign no detection settings to the camera, select 'None'

Note: *Whichever Detection option is selected here, will result in the camera channel being only available for editing in the relevant configuration menu i.e. if Activity is selected for Channel 1; this channel can only be edited for Detection in the Activity Setup menu and not the VMD Configuration menu.*

Activity To Trigger	Following Activity activation, select 'Simple Response' to trigger specific chosen responses from the options detailed below. Select 'Zone' to apply the Zone Input rules as configured in the Zone Input menu. *Refer to 'Zone Input' for more information.*

Note: *When Activity to Trigger is set to 'Zone'; the options detailed below are unavailable.*

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Create Database Entry	When selected, an alarm entry will be added to the Event database.
Profile Change	Select to enable the unit to switch from Normal to Event recording following 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.
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	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 Unset	This will enable Activity Detection when the unit is in Unset operation mode.
Enable in Set	This will enable Activity Detection when the unit is in Set operation mode.
Enable in Override	This will enable Activity Detection when the unit is in Override operation mode.

Note: *Unset, Set and Override modes can be given more recognisable titles i.e. Day, Night, Weekend via the Schedule menu (Record Settings->Schedule).*

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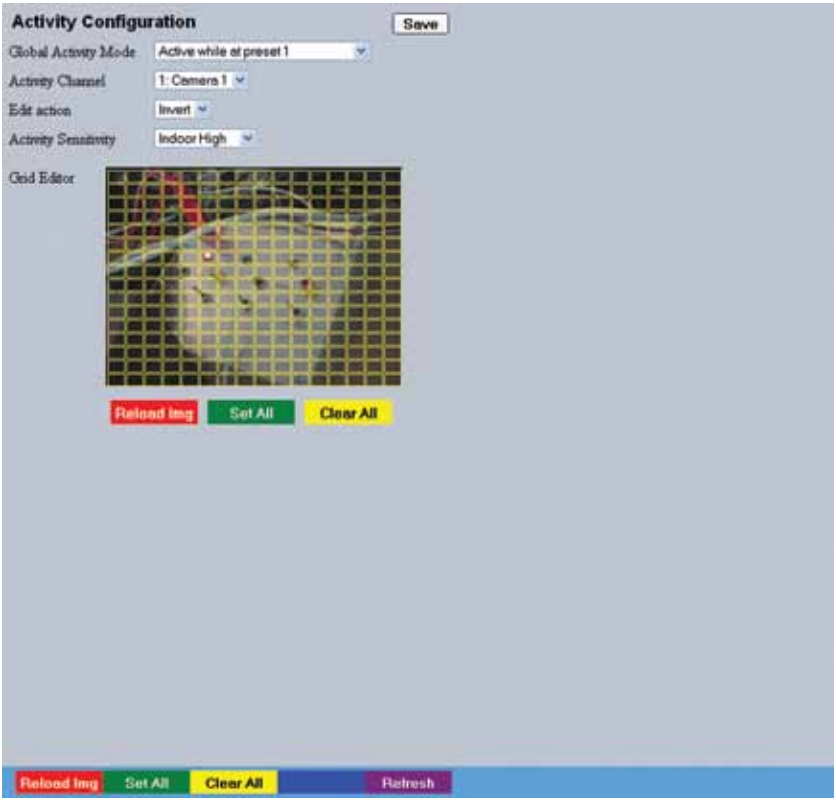
Activity Setup

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 create a database entry or increase the 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 (specifically in relation to a PTZ camera). Selecting 'Active while at Preset 1' 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.
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.

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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.
Grid Editor	Use the Grid Editor by placing cells in areas of the camera view where movement will trigger an alarm. If viewing on a local monitor, 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.

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VMD Configuration

The unit supports VMD (Video Motion Detection) on all video inputs and allows cameras to automatically detect if there is any movement/changes within the video scene.

Note: *Video Motion Detection enables a greater degree of control over detection settings and configuration than the Activity Setup function. Each of the 16 VMD Zones can be directly sized and configured to suit specific requirements. VMD can only be accessed and configured remotely via the webpages.*

Camera	This is a drop down list of the video inputs on the unit, selecting one of the inputs will display the corresponding video source. Ensure this corresponds with the selected Channel.
Zone	There are 16 VMD zones within the image that can be individually configured, select the zone from the drop down list. A selected zone can be re-sized by clicking the mouse button (use the USB mouse if viewing on a local monitor) and then moving and clicking the mouse again. A rectangle will then be displayed based on these two selected points.

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Mode	The zone mode identifies when the reference image is taken for triggering VMD. The options are: Normal - The reference image is updated approx every second. This will only allow small changes in the scene without triggering Last trigger - The reference image is only updated when the VMD is triggered and is best used under controlled lighting, i.e. so there are no false triggers due to ambient light changes. Static - The reference image is collected on startup and is never updated. This would be used in 'sterile' areas where there are no changes expected. Zone disabled - This will disable the zone mode.
Pixel Count (%)	This value is set as a percentage and equates to the percentage of pixels in the selected zone that must change for the VMD event to be triggered. The default setting is 20%.
Pixel Change (%)	This setting is a percentage value of the overall change required in the grayscale to be included in the pixel count. The percentage change is defined over the complete range of black to white, a 100% pixel change would be from black to peak white. The default setting is 20%.
Reload Image (Red)	This will update the reference image to the latest view during set up.
Clear All (Green)	Removes all defined zones from the image.
Default Grid (Yellow)	Displays the default 16 zone grid across the whole image.

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Global Actions

This menu details how to configure the default relay actions supported on the unit.
The unit supports two 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.

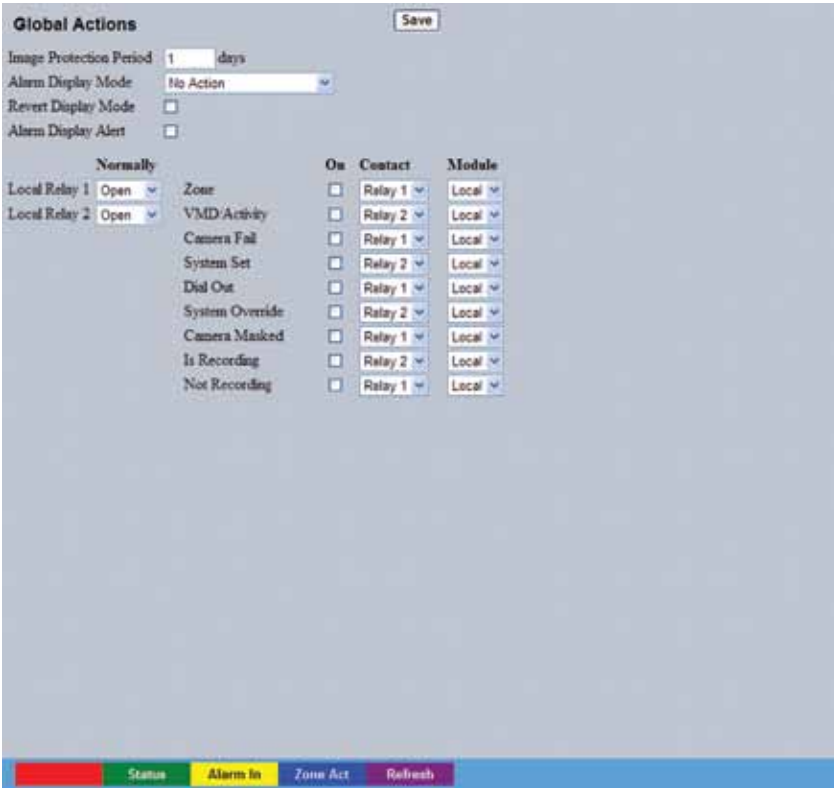

Image Protection Period	Select a time period (in days) that images associated with an alarm will be protected from deletion.
Alarm Display Mode	When a relay has been triggered, the primary camera associated with that relay can immediately be displayed on the local monitor. Select 'Jump To Primary Camera' from the drop down list to activate this function.
Revert Display Mode	Enable this setting to make the unit return to the view displayed before the alarm activation once the alarm has ended.
Alarm Display Alert	Enable this setting to display an alarm text alert in the colour specified in 'Alarm Colour' in the Zone Actions Menu.
Normally	Select whether the normal state of either relay contact should be Open or Closed.
On	This option will enable detection of the conditions listed on the left i.e. if the checkbox next to 'Zone' is selected, the Zone Alarm condition will be monitored; options are Zone, VMD/Activity, Camera Fail, System Set, Dial Out, System Override, Camera Masked, Is Recording and Not Recording.

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Contact	Specifies which Relay will be triggered when the associated alarm is received.
Module	If an external RS485 alarm module(s) are connected to the unit, an option to select them will be displayed here.

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Network Settings

The Network Settings menus allow configuration of the unit's network functionality. Key network settings can be established such as 'fixing' the unit's 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 to any viewing software or to another unit using this one as an IP source..

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 unit's 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.

This Firewall page allows the user to block access to the unit via specific network port(s).

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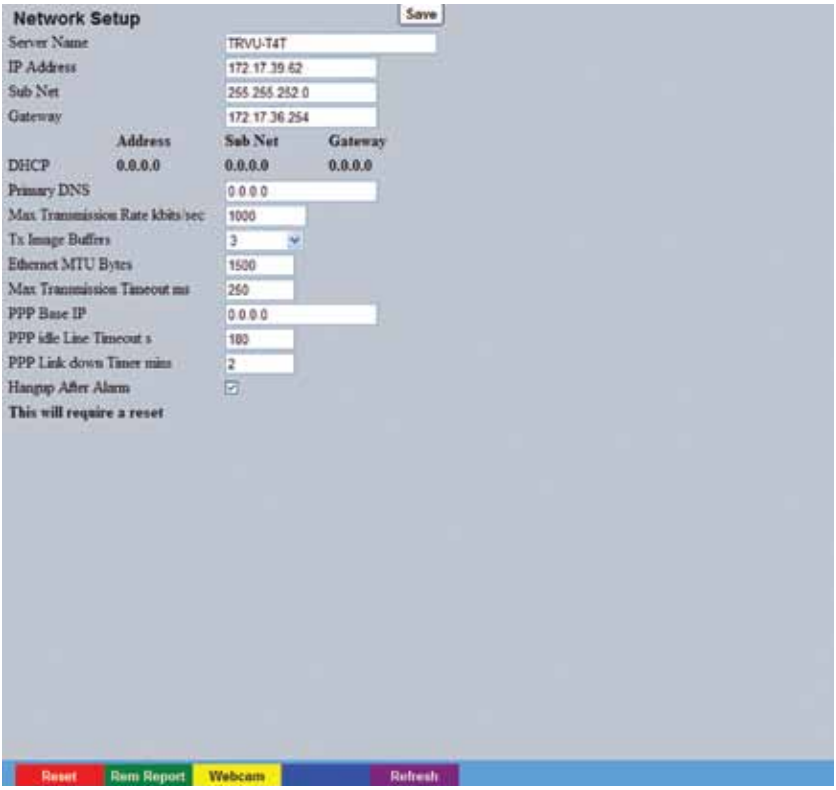
Network

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).
IP Address	This is the IP address allocated to the unit.
Sub Net	This is the subnet of the network were 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	Shows the maximum transmission speed for the network type.
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.

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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.
Hangup After Alarm	Select to close the network connection following transmission of alarm data.
Reset (Red)	Before any changes made to the Network settings can take effect, the unit must be reset.

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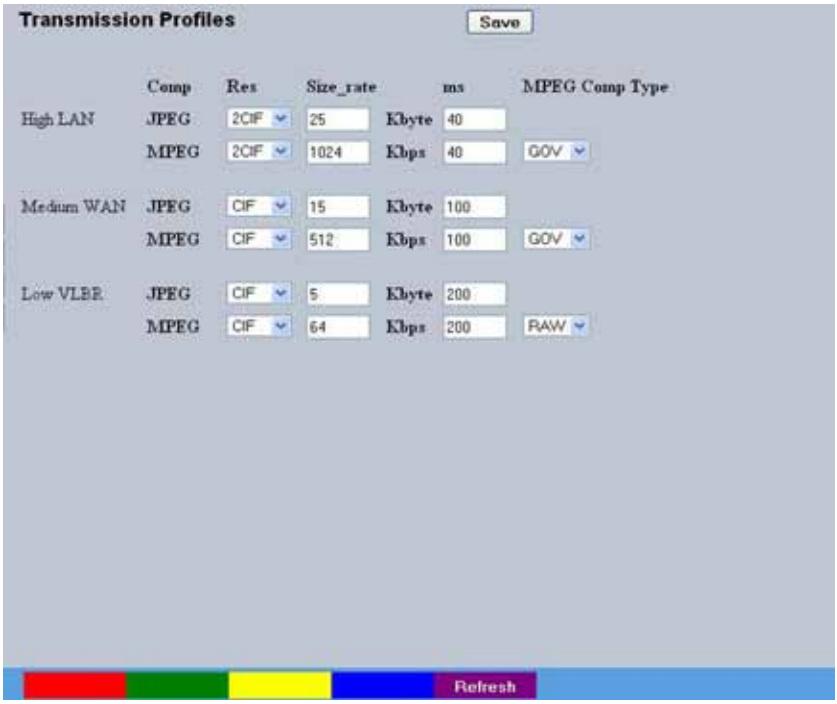
Live Transmissions

The unit transmits live images using JPEG or MPEG formats.
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.



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).
Comp	Settings can be established for JPEG and MPEG compression.
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.
ms	This shows the duration between each image transmitted (in milliseconds). For JPEG, the actual images transmitted will depend on the bandwith of the link, increasing the pictures sent per millisecond 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).

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MPEG Comp Type	Select whether transmitted MPEG4 images are sent as RAW data or in GOV (Group of Video) format. RAW mode transmits a single I frame and then a sequence of P frames (until a change in transmission is detected). GOV mode sends I and P frames in a standard format i.e. I to P frame ratio as set by the record parameters.

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Multicast Setup

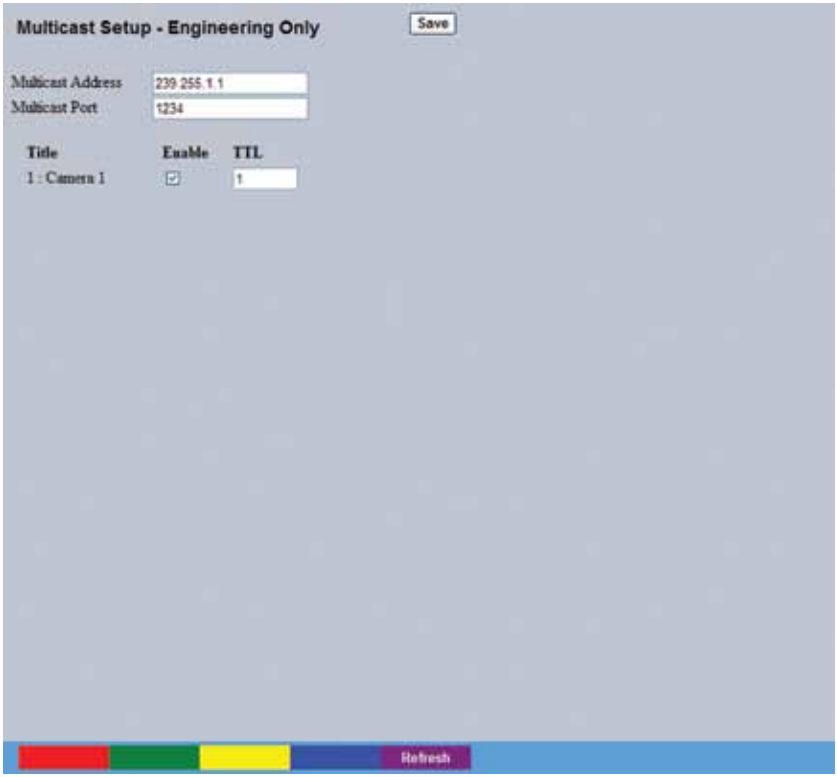
The Multicast page allows recordings from the unit's camera input to be forwarded to a port address; enabling multiple viewers to view live data using a suitable media player without the need to directly connect to the unit. In multi viewing scenarios, the demands on the unit are significantly reduced; improving overall performance.

This system has been validated using the 'Videolan VLC media player for MS Windows.
The Videolan VLC media player can be downloaded free of charge from:

www.videolan.org/vlc/download-windows.html

Please refer to Appendix C for guidance on configuring the Videolan VLC media player.

Note: *Mulitcast can only used for live viewing, requests for stored images and events will still need to be made via the Viewer menu.*



Multicast Address	Assign a unique IP address. This address is not assigned to any 'physical' unit. The VLC program will use this address (when configured to do so) as its multicast group and access any broadcast images via the configured port address (see below). If there are multiple units using multicast, each one must have a unique IP address.
Multicast port	Following configuration of the IP address, configure the port address. The address will default to 1234, .

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Enable	Tick this option to enable multicast.
TTL (Time to Live)	This option can be configured to limit which users can access the images. Enter one of the following numbers: 0 - restricts video to the same host 1 - restricts video to the same subnet 32 - restricts video to the same site 64 - restricts video to the same region 128 - restricts video to the same continent 255 - is unrestricted in scope

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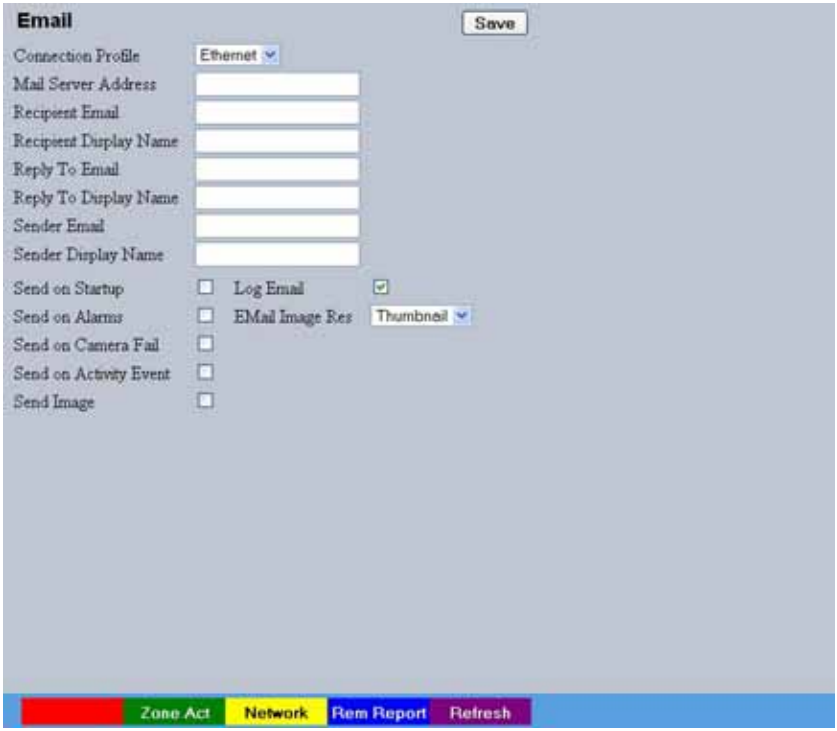
E Mail

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, camera failure etc. 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. 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 to create a sender name.
Display Name (Sender)	This is the sender name that will be shown in the email name field.

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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 Event	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	Select to log every e-mail transaction that the unit issues.
Email Image Res	Select resolution settings for images sent as 'thumbnail' attachments. Choose from: Thumbnail, LO (low res), MED (medium res) and HI (high res).

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Remote Reporting

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

Note: *This menu will only be displayed if 'Remote Reporting' is selected in the System Settings->Features menu.*

Primary Hostname	This is the IP address or URL 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.
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) 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. Enter the port number used for forwarding here if required.

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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.
Remote Alarm Reporting	This must be enabled for the unit to automatically connect on alarm.
Remote Cam Fail Reporting	Enabling this option ensures the unit reports camera failure on any of the inputs to the RVRC.
Remote Startup Reporting	This will send an alarm report when the unit starts up. Any system resets will be identified.
ARC Ping Enabled	Should the modem/router at the Alarm Receiving Centre be dormant, the unit will 'Ping' the ARC prior to sending reporting data.

Note: *Some routers will not respond to 'Ping'.*

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 (23).
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.
Dial Count	This is the time (in minutes) the unit will continue to attempt to connect. A setting of '0' means no limit and the unit will continue to try and connect until successful.

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Web Cam

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

Note: *This menu will only be displayed if 'Webcam Support' is selected in the System Settings->Features menu.*

Server URL	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.
Root Directory	This is the main/root directory on the webcam server where the image directory will be located.
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 the 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.
Select Camera Input	This allows individual video inputs to be enabled for uploading to the webcam server.
Webcam Enable	The Web Cam function can be: ‘Always Enabled’, ‘Enabled when system SET’, ‘Enabled when system UNSET’ or ‘Disabled’.
Webcam Resolution	Select a High, Medium or Low webcam resolution settings to best match the monitor settings of the operator receiving the images.

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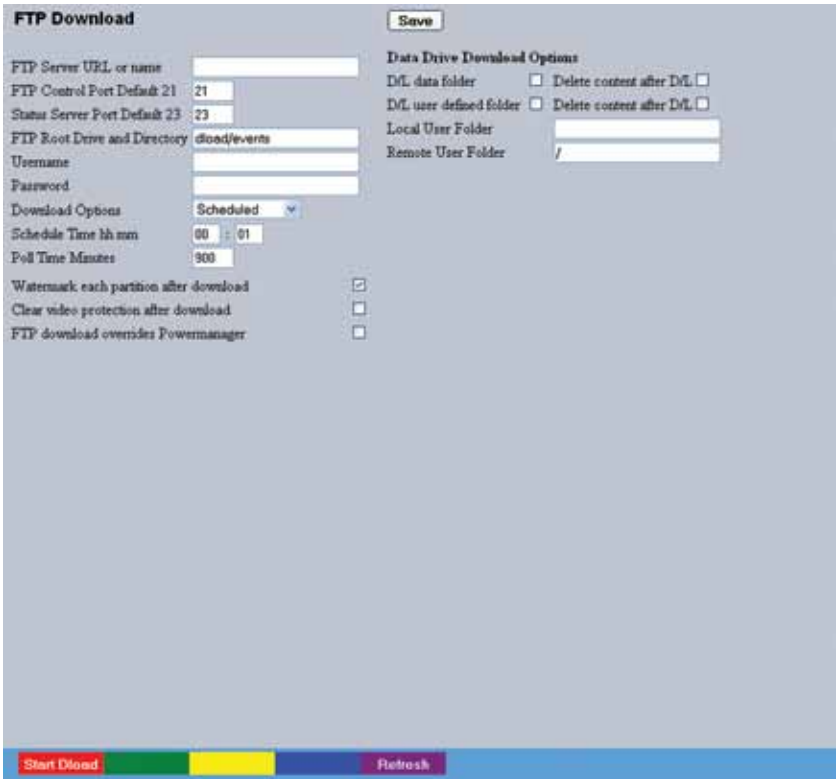
FTP Download

The unit can archive images to a central FTP (File Transfer Protocol) 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 image download purposes.
FTP Control Port	The default port for FTP use is port 21. If this port has already been allocated on the network, it is possible to identify and allocate an alternative port.
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.

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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 is in minutes and is the period between the end of one archive download and the start of the next.
	Manual only	The archive process will only 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 sent into reset while in the process of an FTP download. The reset will not begin until the FTP process has completed or the ignition countdown timer has started. (Note that this is only applicable when power management has been enabled).	

Note: *The unit will automatically power off once the Ignition Timeout has been activated.*

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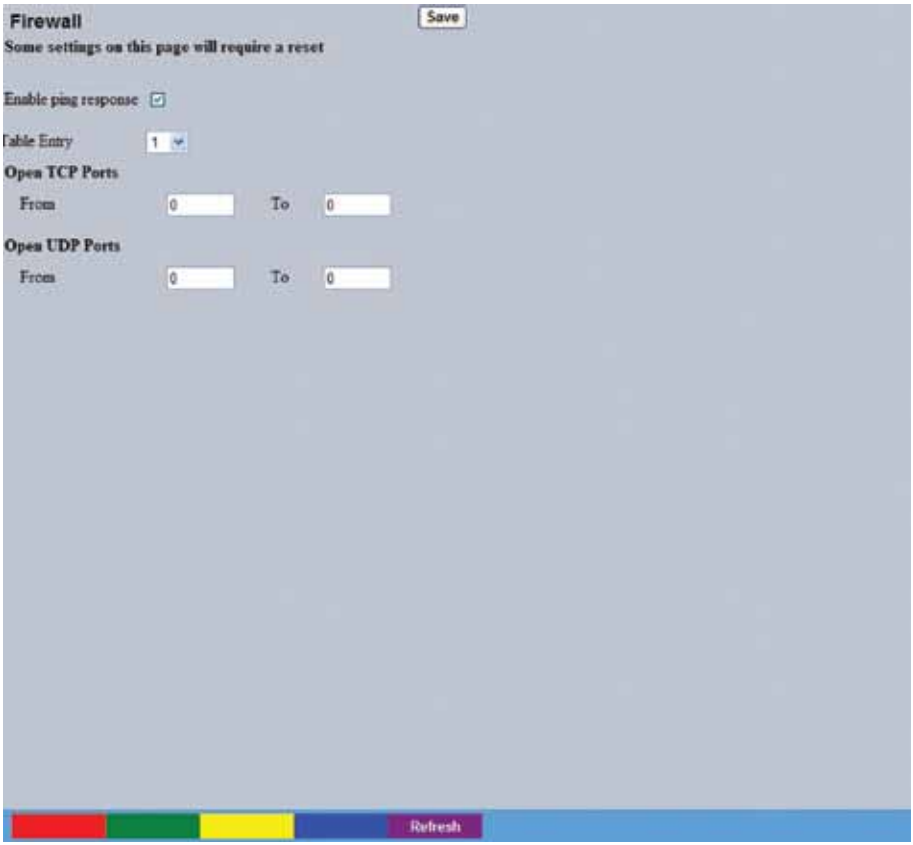
Firewall

This menu allows the user to block access to the unit via specific network port(s).



Enable Ping Response	Enabling this option will allow an external client to receive a response when attempting to 'ping' the unit. Disabling this option will make the unit less visible on the network.
Table Entry	Up to 32 Configuration settings may be entered.
Open TCP ports	This option can identify which system TCP ports are available. If a host tries to communicate with the unit using a TCP port that is not within the 'open' range (even with a valid IP address), access will not be granted to the unit. The enabled ports can be a range or single port address, if a single port is needed then enter the same port number in the to and from section.
Open UDP ports	This option can identify which system UDP ports are available. If a host tries to communicate with the unit using a UDP port that is not within the 'open' range (even with a valid IP address), access will not be granted to the unit. The enabled ports can be a range or single port address, if a single port is needed then enter the same port number in the to and from section.

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Analytics & Text

The Analytics and Text menus allow configuration of the unit's text in image and keywords functionality, refer to the individual menus for further details.

The unit is AnalyticsCapable. Please call AD on + 44 (0) 845 600 9500 for further information on our range of Analytics based solutions.

The Text In Image page allows the unit to integrate text data with recorded images i.e. a cash register with a camera positioned at the 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.

The Archive page allows Event database information to be downloaded to a connected USB media device.

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Analytics

AD has created a range of analytics components and solutions designed to work with the AnalyticsCapable TransVu. The range of applications include: Automatic Number Plate Recognition (ANPR), Object Left and Removed, Detection Tripwire and Counting Tripwire.

- *For further information regarding the range of AD Analytics solutions, please call: + 44 (0) 845 600 9500*

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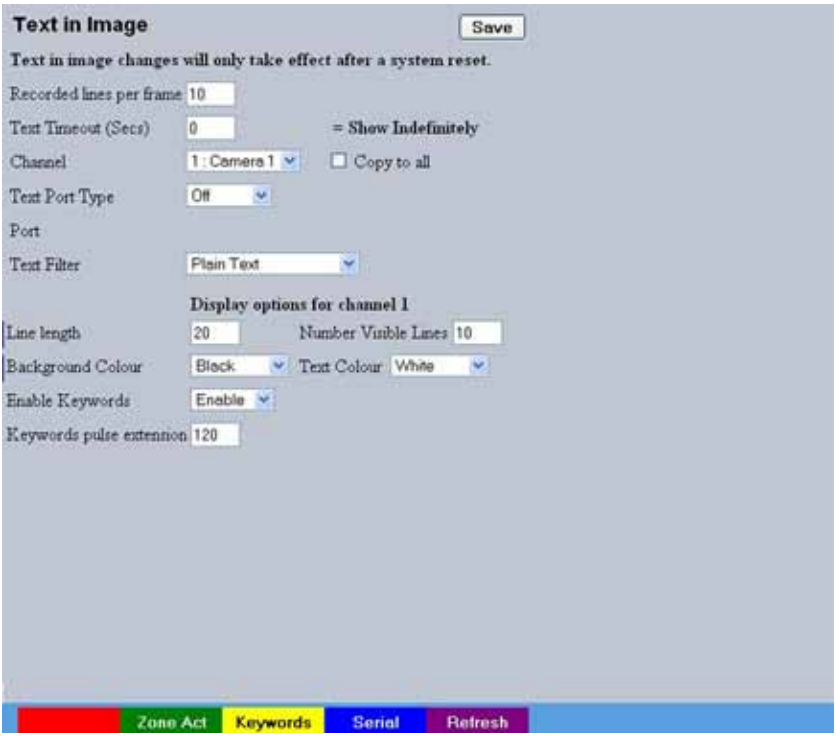
Text In Image

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.

Note: *This menu will only be displayed if 'Text in Image' is selected in the System Settings->Features menu.*



Recorded lines per frame	This controls how many lines of text are stored on the server, and not how many are displayed on screen. This allows more data to be saved than is shown.
Text Timeout	This setting controls how long, in seconds, the text is shown onscreen (selecting 0 will show the text indefinitely).
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 the input source for Text in Image data. Select 'Off' to switch the function off, select 'Network to use the unit's Network port or 'Serial' to use one of the unit's serial ports (see 'Port' below).
Port	All 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 System Settings->Serial Ports'. Select the configured port from the drop down list.

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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
Line length	This identifies the length of the lines that will be stored with the image. The default setting is 20 characters i.e. typically full screen.
Number Visible Lines	To enable the text information to be viewed successfully, it is necessary to establish how many lines of text will be visible on screen.
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.
Text Colour	The colour of the displayed text can be changed. Select from the drop down list.
Enable Keywords	This enables or disables the Keyword feature, allowing the unit to treat certain pre-programmed words received via the text stream as event triggers. Refer to 'Keywords' for guidance on creating Keyword triggers.
Keywords pulse extension	This time period allows multiple instances of a word received within a period of time to be treated as a single event (i.e. if a configured Keyword is detected again within the first Keyword's pulse extension period, the second (and following) occurrences of the word will be ignored).

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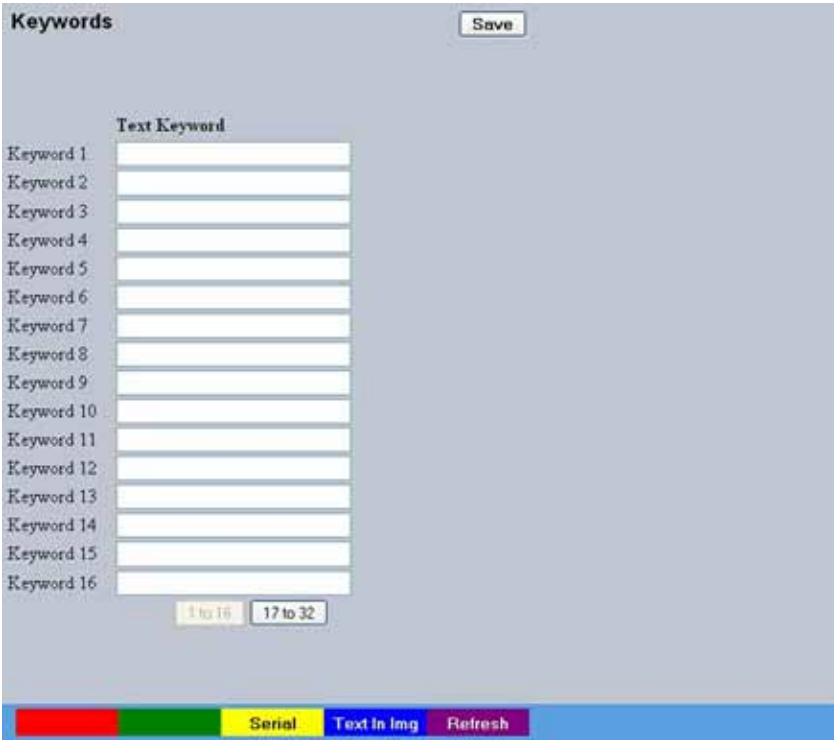
Keyword

This menu allows specific keywords received via the text stream to be configured and enabled as event triggers. The 'Enable Keywords' function need to be activated in the 'Text in Image' menu for this feature to operate.



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. A total of 32 Keywords can be configured and each can be up to 20 characters in length. All of the keywords will be active on the selected Zone keyword channel, *refer to "Zone Input -> Input"*.

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.*

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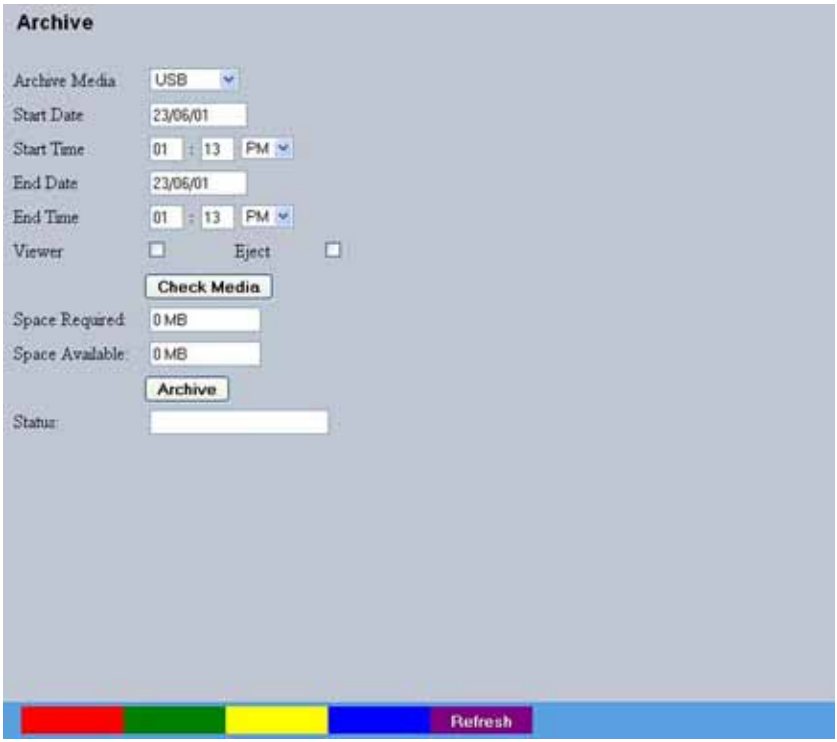
Archive

This menu allows Event database information to be downloaded to a connected USB media device.



Archive Media	Select to archive to either a 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. It is recommended that this option be selected as it 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 USB device is also shown.
Archive Space Required	Space required for archive download.
Archive Space Available	Space currently available on the connected USB device.
Archive button	Select this button to begin the Archive process.
Status	During Archiving, status messages will be displayed detailing the archive process.

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Oracle Dome Configuration

If a camera channel has a AD 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.

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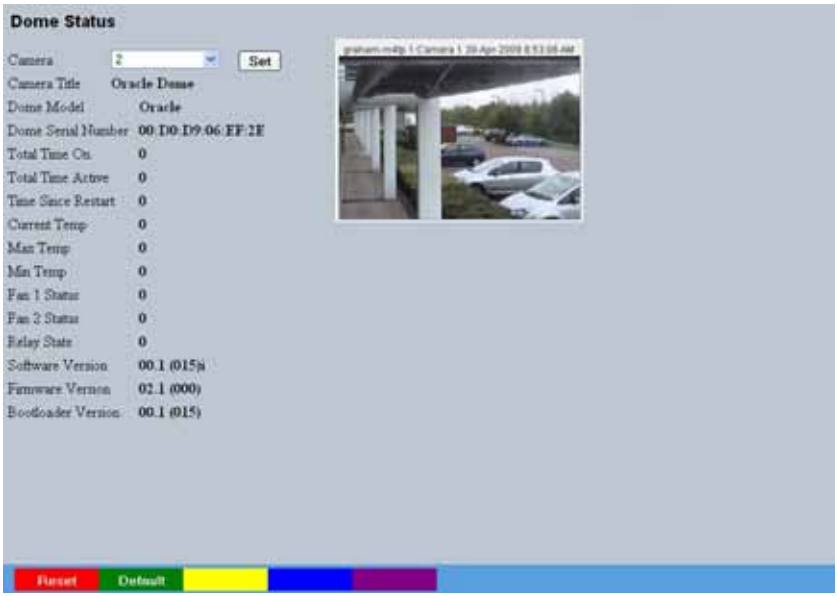
Status

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

IMPORTANT: *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 unit's 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.

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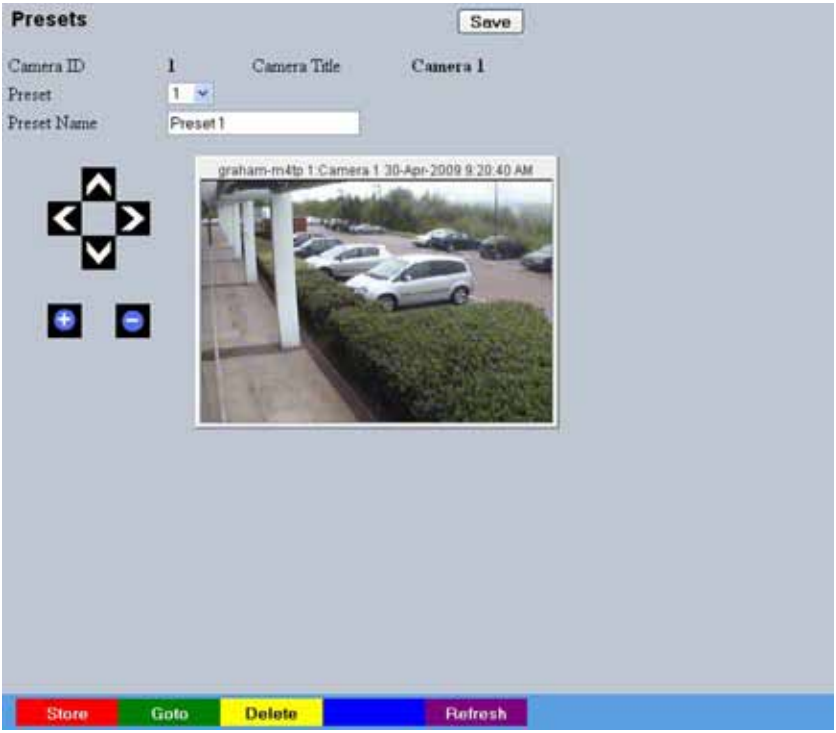
Presets

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



Camera ID	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).
+ (Red)	Use the + button to zoom the camera view IN.
- (Blue)	Use the - 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.

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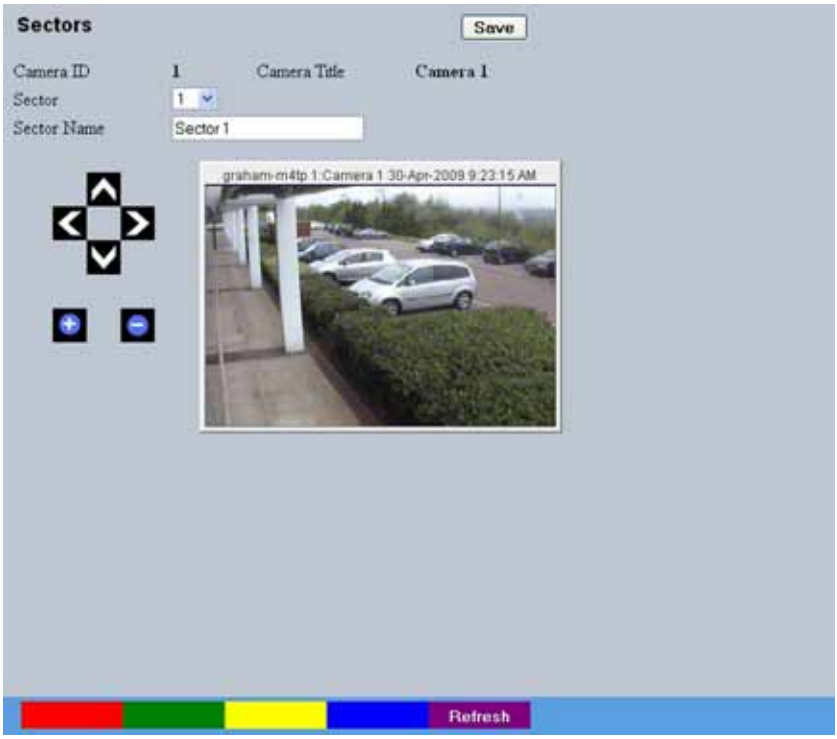
Sectors

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 ID	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).
+ (Red)	Use the + button to zoom the camera view IN.
- (Blue)	Use the - button to zoom the camera view OUT.
Navigation Buttons	Use the four navigation buttons to position the camera view.

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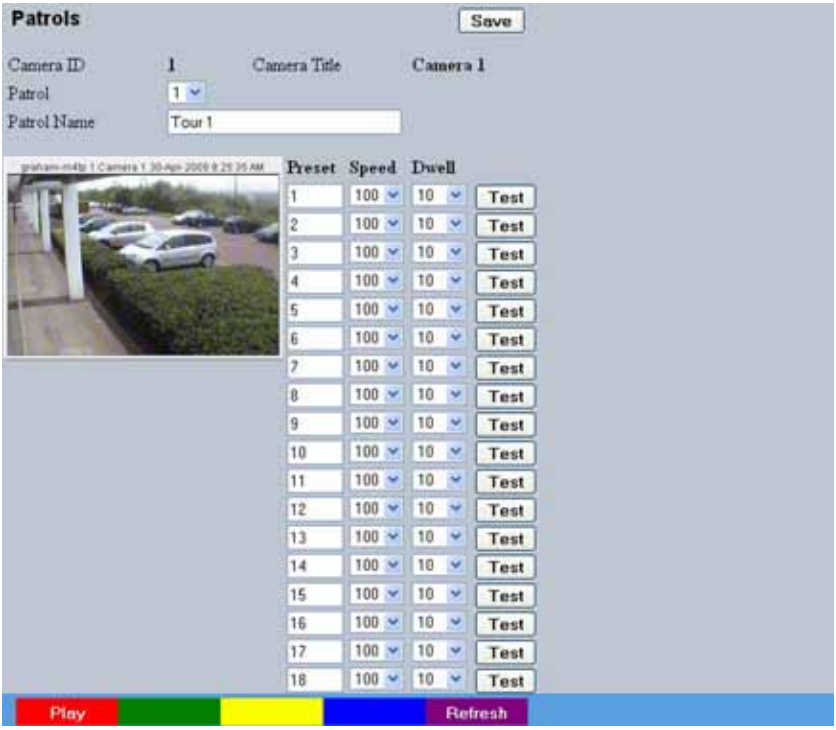
Patrols

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.

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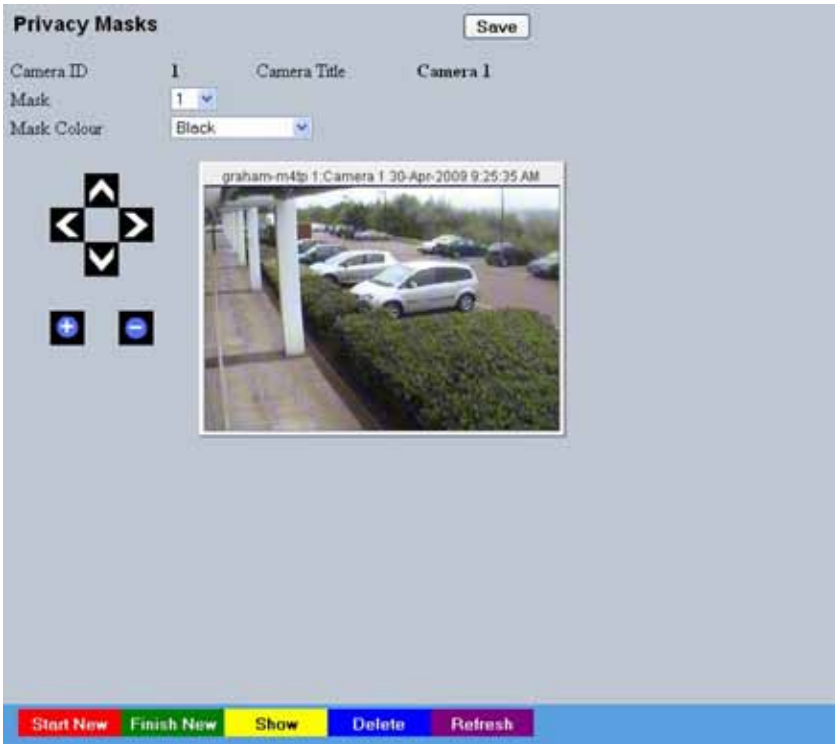
Privacy Masks

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.*

+ (Red)	Use the + button to zoom the camera view IN.
- (Blue)	Use the - 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 +/- 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.

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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.

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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 down. 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 HyperD non-wide dynamic range, select to activate the unique wide dynamic function.

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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.
ICR	Oracle Domes with day/night cameras have an Infrared Cut Removal (ICR) function which can enhance the camera's sensitivity in low light conditions as well as allowing infrared illumination to be used (infrared is blocked by the IR cut filter). When ICR is ON, the camera switches to monochrome mode, the IR cut filter is removed and the camera is at its most sensitive. The default setting for the camera is AUTO ICR where the filter is controlled automatically dependent on the scene brightness determined by the camera. The camera can be forced to stay in colour mode by setting ICR to OFF, or can be forced into mono with maximum low light sensitivity by setting ICR to ON. Alternatively ICR switching can be triggered in response to an alarm input. This allows a photocell sensor to be connected to one of the dome's alarm inputs to control the ICR. This method can be used to avoid instability that may occur when the camera controls the ICR switching in marginally low light conditions. Removing the IR cut filter due to low light can cause enough of an increase in scene brightness and video level to make the camera return the IR cut filter and switch immediately back to colour mode (at which point the video level drops and the process is repeated).
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.
Coax Gain	If the camera feed to the unit originates from the coax output of the Oracle Dome camera, the video signal can be boosted by increasing the coaxial gain setting. The default gain is 0 to increase it select a value between 1 and 100 until the optimum image quality is reached.
Coax Lift	If the camera feed to the unit originates from the coax output of the Oracle Dome, the video signal can be boosted by increasing the coaxial lift setting. Coaxial lift differs from gain as only the high frequency end of the video signal spectrum is boosted, to compensate for the greater attenuation of high frequencies in coax cables. The default gain is 0 to increase it select a value between 1 and 100 until the optimum image quality is reached.
UTP Boost	If the camera feed to the unit originates from the twisted pair output of the camera. Two levels of boost can be activated to improve image quality by compensating for losses in the cables.

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 returning to its home position.
Save (Grey)	Select to store Event Settings to the unit and the Oracle Dome camera memory.

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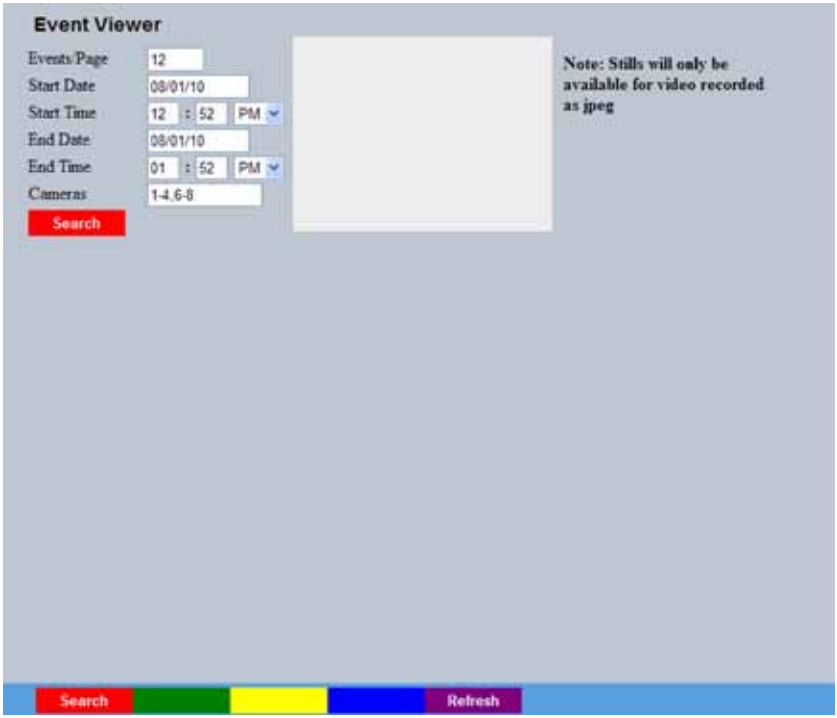
Event Search

The Event Search menu allows recorded event images to be quickly searched for and reviewed. The Search criteria can be limited to a specific date/time and/or individual cameras.

Note: *Event Search will only be available when the 'Enable Event Search Page' option is enabled via the System Settings->Features menu.*



Event/Page	Select the amount of event Stil images (thumbnail size) to be displayed per results page.
Start Date	Enter a Start Date for the Event Search.
Start Time	Enter a Start Time for the Event Search.
End Date	Enter an End Date for the Event Search.
End Time	Enter an End Time for the Event Search.
Cameras	Select the camera channel(s) to be included in the Event Search. A range of cameras can be selected by entering a hyphen between the first and last required camera i.e.1-8. A selection of individual cameras can be chosen by entering a comma between each camera i.e. 1,3,5,8. Events captured by cameras not in this selection will be ignored.
Search (Red)	When the Event Search parameters have been entered, select 'Search'.

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Event Search Results

After selecting 'Search' (Red), a still image of each captured event (within the chosen search criteria) will be displayed. It may be necessary to scroll through the results pages to view all events. If the number of events exceeds the events displayed per page (configured in Event/Page).

Click on the thumbnail image to playback an event. That event will then playback in the window at the top of the menu.

Note: *To zoom into the event currently in playback mode, right click it with the mouse. The 'Set Zoom Level' option will be displayed. The image can be set to display at up to 800% of its recorded size. Note that the view window will not increase in size, use the scroll bars to navigate the enlarged image.*

IMPORTANT: *Still event images will only be available for video recorded in JPEG mode (MPEG4 thumbnail Stills will appear 'blank'); however event data recorded in either JPEG or MPEG4 mode can be replayed.*

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Operating the Viewer

Navigation is via a colour coded softkey system. The colour bar provides an intuitive approach to operator and installer use.

Note: *The screen images shown throughout this section are those displayed remotely via the webpages; If viewing locally, the menu layout will differ slightly.*

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

Overleaf are described the available Viewer menu pages. To display the colour coded menu options when viewing locally, press click the mouse button anywhere on the screen.

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View Control

The View Control page allows connected video inputs to be displayed full screen or in Quad/Multi way display format. The Help Video page can also be accessed.

Red	Full	Show currently selected camera full screen.
Green	Quad	Displays four images on-screen, putting the currently selected camera in the top left segment 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	By default displays nine images on-screen, putting the currently selected camera in the top left segment, 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: *The Multi option not available on 4-way model.*

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Blue	Map	Displays either the default camera selection map or a specific site map (if one has been configured) with ‘hotspots’ showing camera locations. A camera can be viewed by selecting the corresponding hotspot.
Purple	Next	Opens the next page of the Viewer menu.

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Video Control

The Video Control page offers video playback functions i.e. play, pause, rewind and fast forward

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.

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Selection Page

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

Red	Play	Switches the selected camera(s) shown on screen into Play mode.
Green	Goto	Opens the GoTo menu.
Yellow	Event	Displays the Events menu.
Blue	Menu/Setup*	Opens the Configuration menu pages.

IMPORTANT: *Selecting this option will exit the Viewer menus. This will be logged in the User Activity Log as the current user terminating the session, refer to 'Appendix C' for further information regarding the User Activity Log.*

Purple	Next	Opens the next page of the Viewer menu.

***** *Menu will be displayed in the local viewer, Setup will be displayed in the remote viewer.*

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	Preset	If Preset positions have been established for the PTZ camera, select the Preset option and enter a preset number. Refer to the 'Presets' menu page for further details on establishing preset positions.
Yellow	Patrol	If Patrols have been established for the camera, select the Patrol option and enter a number. Refer to the 'Patrols' menu page for further details on establishing Patrols.
Blue	Prog	Opens the 'Dome Menu Option' page.
Purple	Next	Opens the next page of the Viewer menu.

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Program Page

The Program Menu page allows the PTZ configuration on the currently selected Telemetry camera to be accessed and configured (if such menus are available).

Red	Dome	Select to display the Dome Menu page.
Green	Store	Use to save the current view as a Preset for this camera. Press this button then enter a numeric preset position. 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.*

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.

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

Purple	Back	Return to the 'PTZ Program Option' page.

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Dome Menu Option

The Dome Menu page allows camera specific menus imbedded on the currently viewed Telemetry camera to be accessed and configured (if such menus are available).

Red	Dome Menu	Select to view camera specific sub-menus embedded on the Telemetry camera (if applicable). The camera specific menus will be overlaid across the screen.
Green	Select	This option enables sub-menu content selection (dependent on the protocol selected). Please refer to the specific camera documentation for further guidance.
Yellow	Return	This option enabes sub-menus to be exited (dependent on the protocol selected). Please refer to the specific camera documentation for further guidance.
Blue	Menu Exit	This option will fully exit any embedded camera sub-menus currently being viewed.
Purple	Back	Return to the previous page of the Viewer menu.

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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 the current playback time.
- Selecting the -Hour button (Green) will progress the video to a point exactly one hour prior to the time shown in the date/time display.
- Selecting the +Hour button (Yellow) will progress the video to a point exactly one hour in advance of the time shown in the date/time display.
- 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.*

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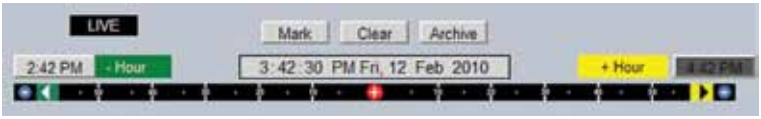
Video Timeline

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

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Change Scale

Utilise the buttons shown below to change the scale.

Note: *The coloured softkey buttons can also be used to alter the scale, refer to "Softkey Guidance" 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.

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Event List

Alarms and activity detection, plus system Events i.e. camera fails, are tagged and stored in the Event List. Each Event is labelled with an event type (alarm, activity or system) and its time and date. To view any additional pages of Event data, use the Yellow/Blue Softkeys. If viewing locally, use the Up/Down Directional buttons to select a specific Event, press the OK button to display the full list. When viewing remotely, selecting any Event with the mouse will display the full Event list. If viewing locally, press PLAY on the IR Remote Control/Keyboard to playback an event. If viewing remotely, highlight a chosen event with the mouse to playback.

Red	Play	Select to playback the highlighted event.
Green	Live	Select to view live images from the currently selected camera.
Yellow	Page -	Select to display the previous page of Event data.
Blue	Page +	Select to display the next page of Event data.
Purple	Next	Select to open the Event Copy and Search menu.

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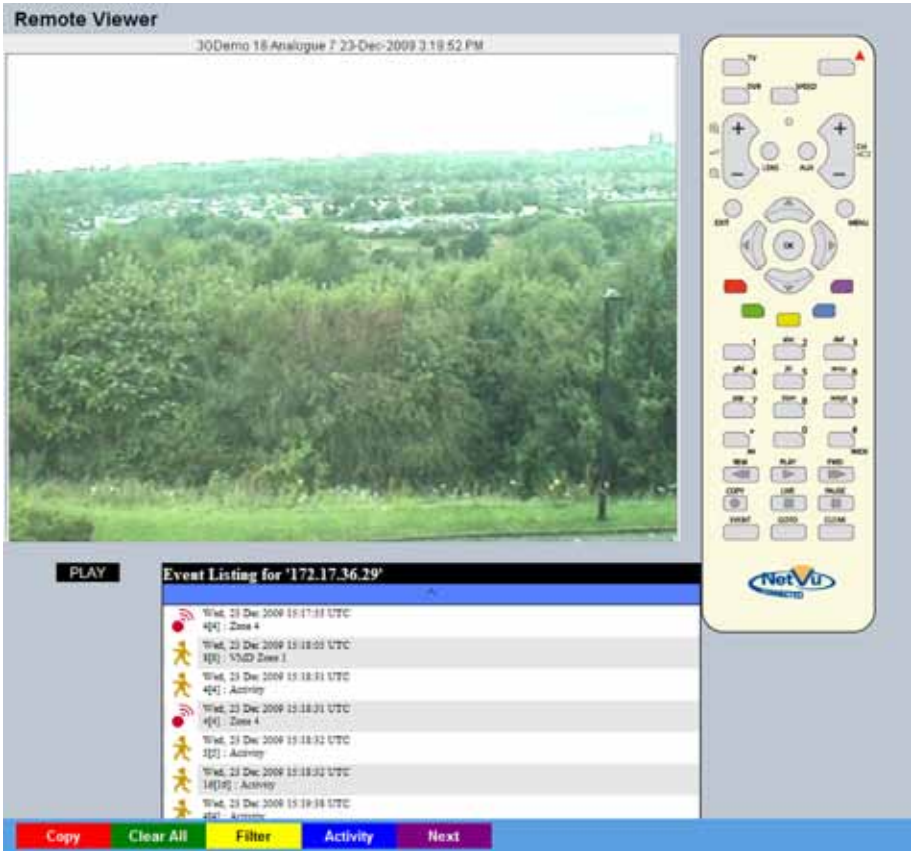
Event Copy and Search Menu

The Event Copy and Search menu allows events to be sent to the Copy menu via the Copy Option. All events currently held within the 'Copy' menu can be deleted via the 'Clear All' option. The 'Filter option' allows access to the 'Filter Search' menu.



Red	Copy	Select to add the currently highlighted event to the Copy menu.
Green	Clear All	Select to clear ALL events from the copy menu.

Note: *Single events can be deleted via the Copy menu.*

Yellow	Filter	Select to display the Filter Search menu, *refer to; Operating The Viewer->Filter Search for further guidance.*
Blue	Activity	Select to open the Activity Search menu, *refer to; Operating The Viewer->Activity Search for further guidance.*
Purple	Next	Opens the Play menu for the currently selected camera.

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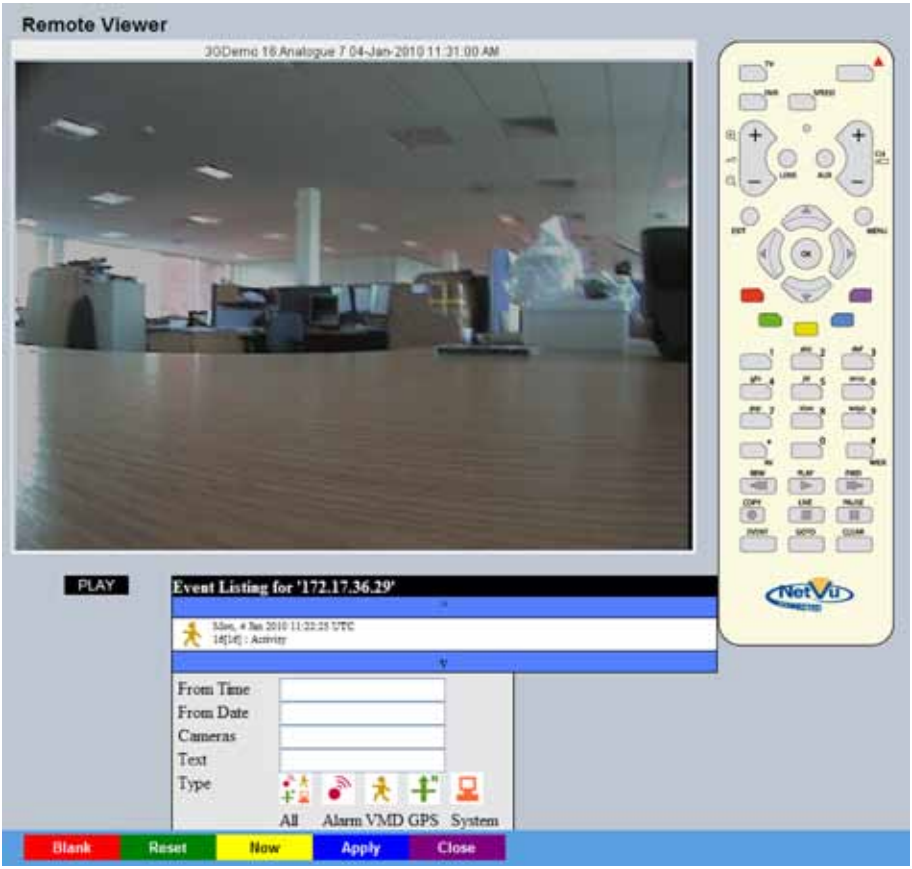
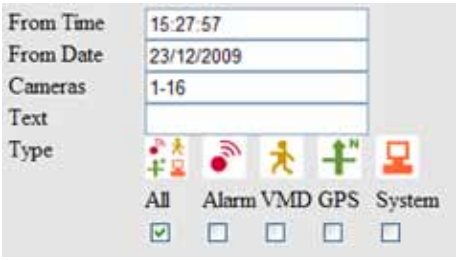
Filter Search Menu

When searching a large number of stored events, the Filter Search menu allows events to be filtered by time, camera channel and category.



Filter Search Box



From Time	Select a start time for the Event filter. Events prior to this time will be ignored.
From Date	Select a start date for the Event filter. Events prior to this date will be ignored.

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	Cameras	Select which cameras are to be included within the Event search. A range of cameras can be selected by entering a hyphen between the first and last required camera i.e.1-8. A selection of individual cameras can be chosen by entering a comma between each camera i.e. 1,3,5,8. Events captured by other cameras will be ignored.
	Text	If searching for text in image events, enter the required text here.
	Type	The event search can be filtered to include all, or specific event types only. The event types are: Alarm, VMD, GPS and System. Each type is assigned a specific symbol, these symbols accompany each listed event for easy recognition.
Red	Blank	Select to remove all data currently displayed in the Filter Search Box.
Green	Reset	Select to reset the Filter Search box. The current Time/Date will be displayed plus all available cameras.
Yellow	Now	Select to enter the current Time/Date. Any additional displayed search criteria will remain.
Blue	Apply	Select to apply any changes made to the Filter Search box.
Purple	Close	Select to return to the Event Copy and Search menu.

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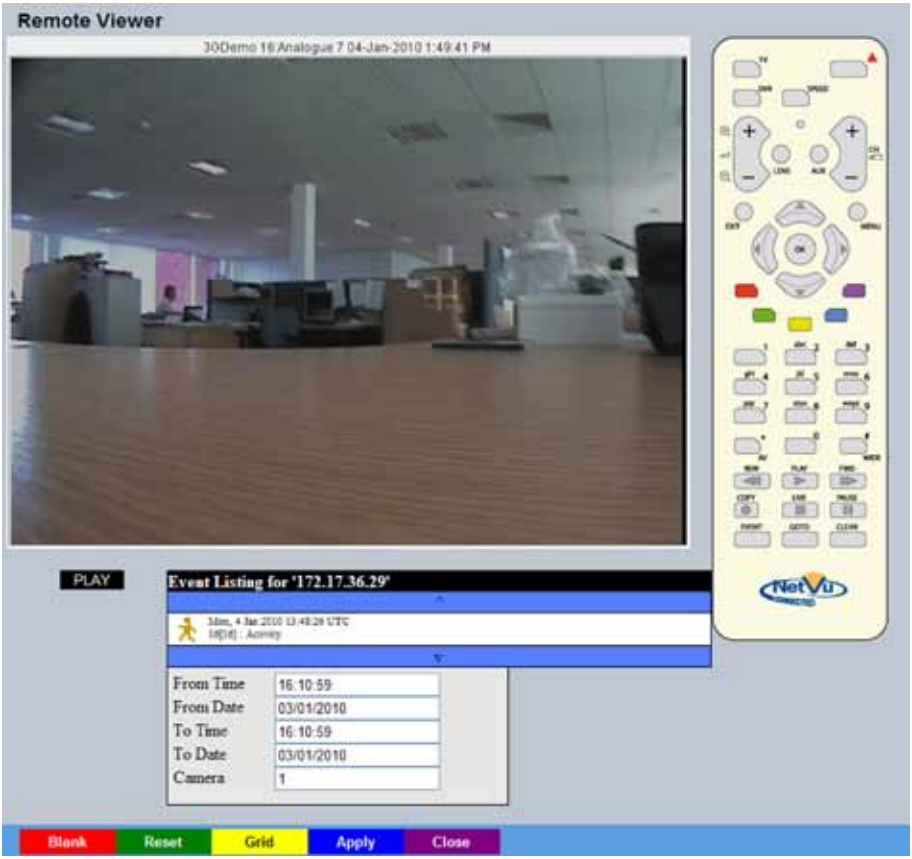
Activity Search Menu

The Activity Search menu allows the search criteria to be further narrowed to only include events which have occurred within specific segments of the camera view. Firstly, enter a start/end Time and Date, then select a camera channel. Use the Grid option to select a specific segment of the camera view.



From Time	Select a start time for the Activity filter. Events prior to this time will be ignored.
From Date	Select a start date for the Activity filter. Events prior to this date will be ignored.
To Time	Select an end time for the Activity filter. Events after this time will be ignored.
To Date	Select a end date for the Activity filter. Events after this date will be ignored
Cameras	Select which camera to include within the Activity search. A range of cameras can be selected by entering a hyphen between the first and last required camera i.e.1-8. A selection of individual cameras can be chosen by entering a comma between each camera i.e. 1,3,5,8. Events captured by other cameras will be ignored.

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Red	Blank	Select to remove all data currently displayed in the Filter Search Box.
Green	Reset	Select to reset the Filter Search box. The current Time/Date will be displayed plus all available cameras.
Yellow	Grid	Select to open the Grid menu.
Blue	Apply	Select to apply any change made to the Filter Search box.
Purple	Close	Select to return to the Event Copy and Search menu.

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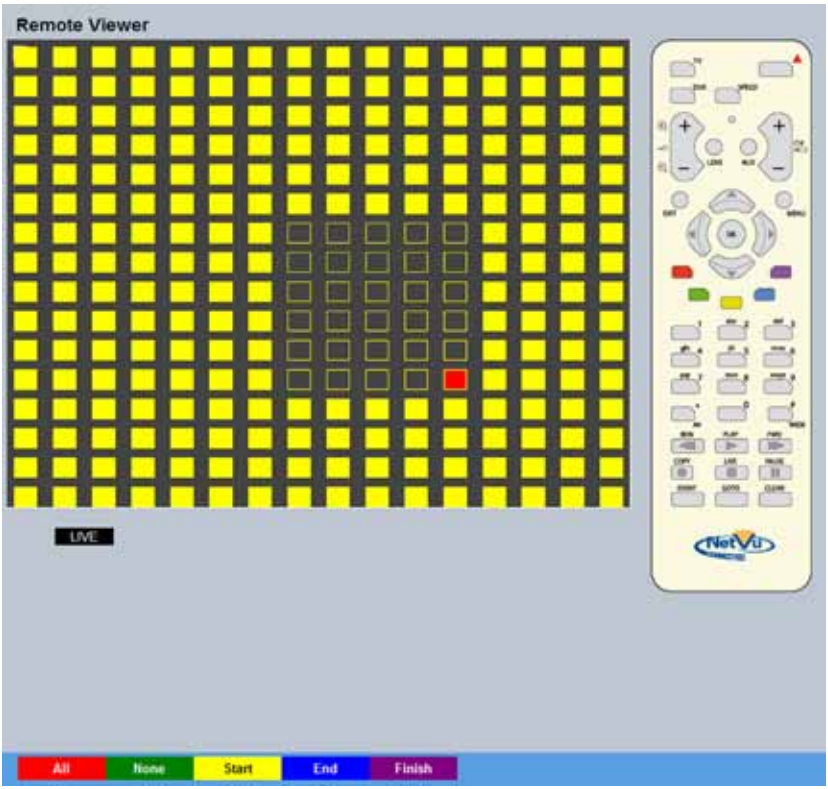
Activity Grid Menu

The Activity Grid menu allows the event search criteria to be further narrowed to only display events which have occurred within a segment of the camera view. A grid will be displayed across the image of the selected camera channel. Using the options outlined below, the grid can be configured to create activity zones within the image. Only events which have occurred within these zones will then be displayed in the Activity Search menu for the chosen camera channel.



Red	All	This option will display a default rectangle of 18x16 cells across the video image.
Green	None	This option will delete all cells from the displayed video image.
Yellow	Start	Highlight a cell and select Start (Yellow). This will mark the start point of the area NOT to be included in the activity zone.
Blue	End	Highlight a cell) and select End (Blue). This will mark the end point of the area NOT to be included in the activity zone.

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If viewing remotely, a zone can be created directly via the mouse. Simply click on a cell and then on a separate cell. An area NOT to be included in the Activity zone will be created linking these points.

IMPORTANT: *The area (cells) highlighted yellow constitutes the activity detection zone. Any activity events occurring within the area created using the Start and End points will be ignored.*

Note: *Multiple zones can be created within the same camera view.*

Purple	Finish	Select to return to the Activity Search menu.

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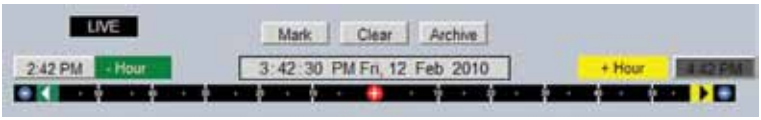
Archive Selection

Images and events can be marked and added to the Copy menu. Archive selection can be undertaken either from a local monitor or remotely via the webpages.

For ease of use, video can be marked for archive in a number of ways:

Selecting Video for Archiving Via The Video Timeline



Access the Video Timeline menu via the GoTo option.

Using the Timeline, navigate to the required start point of the footage you wish to archive.

Select the ‘Mark’ button.

When the footage reaches the end point you wish the archive to stop, select the ‘Mark’ button again.

This marked footage will now be added to the Copy menu for download purposes.

The Copy menu can be accessed directly via the ‘Archive’ button.

Any marked start point can be deleted via the ‘Clear’ button.

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Selecting Video For Archiving Via The Archive option / Copy Event List

When viewing the footage intended for download, enter a start and end point for archive purposes via the Mark (Red) button. The Copy Event List will be displayed detailing each added archive (based on the marked start and end point). Up to eight archive events can be added to the Copy Event List.

All video listed within the Copy Event List will also be automatically added to the Copy menu. Use the Archive (Yellow) button to access the Copy menu.

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 Copy Menu.

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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.

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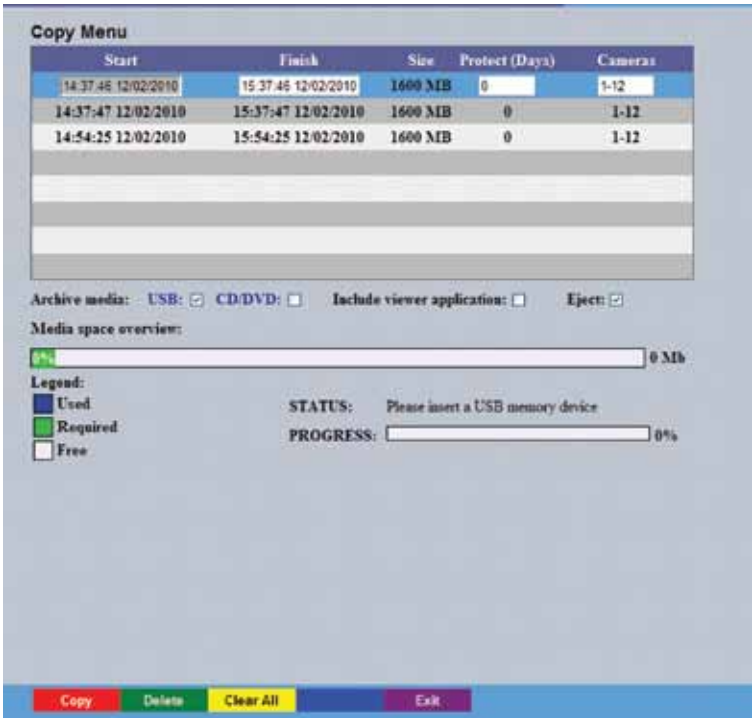
Copy Menu

Images and events can be copied to a 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.

Start and End points for video marked for download can also be added and edited directly within the Copy Menu.



The Copy menu will display all video images marked for archiving. The Start and Finish date/times will be shown along with the estimated size of the download, the period the images are protected for, and the camera channels to be included in the download.

To Edit an archive within the Copy menu, click on it directly (use the left mouse button when viewing remotely).

The textboxes within the 'Start', 'Finish', 'Protect (Days)' and 'Cameras' fields can be edited as required.

Selecting a blank Archive line will allow direct entry of data i.e. start/end time and date, protection period and the camera channels to be included in the Archive.

Archive Media	Select the media device (USB) 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.

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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).

Red	Copy	Select to begin the download process.
Green	Delete	Select to delete the highlighted archive only.
Yellow	Clear All	Select to delete ALL archives currently displayed in the Copy menu.
Purple	Exit	Select to exit the Copy menu.

Note: *You can navigate away from the Copy menu and the archive procedure will continue*

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 save to the USB device.
5. The USB export progress is displayed as a %. On completion the status will read 'Archive Complete'.

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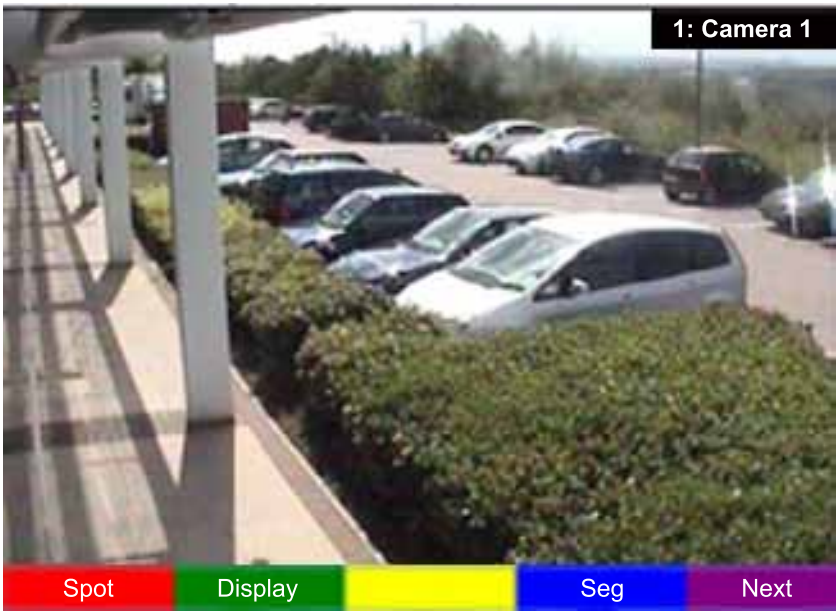
Spot Monitor / On-Screen Display (Local Monitor Only)

This menu (only accessible via a local monitor) allows configuration of the camera output displayed on the spot monitor, plus enables all on-screen display text to be removed from the main monitor display



Red	Spot	Select to change the camera currently displayed on the spot monitor. As different cameras are selected, they will be displayed on the spot monitor only and not on the main monitor. The text 'Spot' will be displayed in the lower left segment of the main monitor.
Green	Display	Select to remove the on-screen text displayed on the main monitor.
Blue	Seg	Select to custom configure a quad or multiscreen display. First ensure the viewer is displaying in Quad or Multiscreen format, then select 'Seg'. The camera view in the top left segment will be highlighted. When the chosen camera is displayed, select 'OK'. The next camera segment will then be highlighted and ready to be assigned a camera. Select 'Seg' to exit when all segments have been assigned a camera channel. When accessing Quad or Multiscreen display, the custom display config will now be displayed.
Purple	Next	Opens the next page of the Viewer menus.

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Appendix A

User Activity Logging

User Activity logging can be enabled or disabled via the System Setting->Features menu. When this feature is enabled, the unit will record all actions performed via the user interface. These actions include Viewing the live stream, activating telemetry, altering the unit configuration, viewing recorded video, archiving video and any system events such as restarting the unit.

Data recorded will include the user name, login time and date, what action was performed, which channels were viewed and which telemetry instructions were issued.

The log files will be retained on the unit for as long as any related video files are kept. One log file will be created daily as a text file and will be named automatically (using the date of creation), and stored in the logs directory on the unit. This can then be downloaded via ftp if required.

Action	Stored Data
User Login	Username, Local or Remote, Login
Local Archive	Username, Local or Remote control, Media
Remote Raw Archive 1	http Username, Submission requesting archive time
Remote Selective Archive	http Username, Submission requesting archive time
Remote Raw Archive 2	FTP Username, List of downloaded files
Telemetry	IP address of user, Local or Remote, Channel Controlled, Command sent
Configuration	Username, Local or remote, Menus changed, Items changed
Playback	Username, Remote, Channel viewed, From time
Live	Username, Remote, Channel viewed
System Events	Username, Event Info

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Appendix B

SMS Configuration

Introduction

The TransVu Video Servers support GSM communications and SMS messaging with a Siemens TC35i GSM module. This allows the video servers to report events via SMS and to receive SMS messages in order to create events on the system. On Video Servers supporting GPS modules, the SMS messaging can also be used to report position, distance off track and current zone.

Command Format

Commands consist of a descriptor followed by a variable parameter list. Due to the limited message size under SMS, the parameters do not have descriptors with them and must appear in the correct order. If a parameter is not supplied, the parameter delimiter must still be include. The parameter list is defined for each command. The command is delimited from the parameter list by '?' and the parameters are delimited by '&'.

SMS Commands

These are messages sent to the video server in order to create an event. These messages may be sent from a mobile phone or Internet service offering SMS messaging. Optional parameters are indicated by {}; these should not be included in the SMS message sent to the system.

Callback

This command is used to cause the Video Server to make a connection to a Telnet listener at the destination. The command specifies a callback profile to use so this can be used to initiate an Internet connection from the server and report the dynamic IP assigned to that connection back to the destination.

CALLBACK?<password>&<destination>&<profile>&<text>

password	SMS password to enable commands to be executed
destination	IP address or DNS name of the Telnet listener. A DNS name can only be used if the server has a connection to a DNS server
profile	This can be a profile number to use or a profile name to make the callback connection. The profile number relates to the profiles on the SMS configuration webpage. Specifying a name allows any profile on the Video Server to be used but the profile must exist. If the profile is specified as Ethernet, the system will attempt to connect over the Ethernet gateway on the network
text	The text to send to the Telnet listener

Make Ethernet Connection

This command is used to cause the Video Server to make an Internet connection via the Ethernet using PING. As this connects via an external device e.g. a router, it relies on the Internet connection having a static IP address.

OPENLINK?<password>{&<destination>}

password	SMS password to enable commands to be executed
destination	Optional IP address or DNS name of the Internet server to be contacted. A DNS name can only be used if the server has a connection to a DNS server

Position (GPS)

This command is used to query the current position of the video server. The server will send an SMS message to the destination number specified on the SMS configuration webpage or to the number specified in the command. The SMS destination number will typically be an SMS server but by specifying a mobile phone number the lat./long position in decimal degrees can be reported to any mobile phone capable of receiving SMS messages

POSITION?<password>{&<phone>}

password	SMS password to enable commands to be executed
phone	Optional mobile phone number to send the report to

SMS Reports

SMS reports are messages sent from the video server to a defined SMS server when an event occurs. The events that cause SMS reports are selected on the SMS configuration webpage.

Startup

STARTUP?<name>&<time>&<IP address>&<latitude>&<longitude>&<zone>

Name	The system name
Time	The local julian time of the message
IP address	The Ethernet IP address, either programmed or DHCP address
Latitude	Current latitude decimal degrees if known
Longitude	Current longitude if known
Zone	Current zone

Shutdown

SHUTDOWN?<name>&<time>&<latitude>&<longitude>&<zone>

Name	The system name
Time	The local julian time of the message
Latitude	Current latitude decimal degrees if known
Longitude	Current longitude if known
Zone	Current zone

Distance (GPS)

This message is generated if the unit has moved more than the distance specified on the SMS configuration. This can be used to track a vehicle by reporting the position every 2 miles, for example.

DISTANCE?<name>&<time>&<lat>&<long>&<speed>&<course>&<zone>&<distance>

Name	The system name
Time	The local julian time of the message
Lat.	Current latitude decimal degrees if known
Long	Current longitude if known
Speed	Current speed reported by GPS
Course	Current heading reported by GPS
Zone	Current zone
Distance	Distance travelled since last message

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Zone Change (GPS)

This message is generated if the unit is using route tracking and changes zone on the specified route. The message is issued when the unit enters a new zone.

ZONECHG?<name>&<time>&<lat>&<long>&<speed>&<course>&<zone>&<distance>

Name	The system name
Time	The local julian time of the message
Lat.	Current latitude decimal degrees if known
Long	Current longitude if known
Speed	Current speed reported by GPS
Course	Current heading reported by GPS
Zone	New zone
Distance	Distance travelled since last message

Offtrack (GPS)

This message is generated if the unit is using route tracking and is not in a valid zone on the specified route. The message is issued when the unit leaves a zone and will be repeated every 5 minutes until it re-enters a valid zone.

OFFTRACK?<name>&<time>&<lat>&<long>&<speed>&<course>&<zone>&<distance>

Name	The system name
Time	The local julian time of the message
Lat.	Current latitude decimal degrees if known
Long	Current longitude if known
Speed	Current speed reported by GPS
Course	Current heading reported by GPS
Zone	Last valid zone
Distance	Distance travelled since last message

Ontrack (GPS)

This message is generated if the unit is using route tracking and has moved into a valid zone after being reported as off-track.

ONTRACK?<name>&<time>&<lat>&<long>&<speed>&<course>&<zone>&<distance>

Name	The system name
Time	The local julian time of the message
Lat.	Current latitude decimal degrees if known
Long	Current longitude if known
Speed	Current speed reported by GPS
Course	Current heading reported by GPS
Zone	Current zone
Distance	Distance travelled since last message

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Timed (GPS)

This message is generated periodically by the server. The time period is specified on the SMS configuration page.

TIMED?<name>&<time>&<lat>&<long>&<speed>&<course>&<zone>

Name	The system name
Time	The local julian time of the message
Lat.	Current latitude decimal degrees if known
Long	Current longitude if known
Speed	Current speed reported by GPS
Course	Current heading reported by GPS
Zone	Current zone

Position Report (GPS)

This message is generated in response to an SMS message requesting the current position. (POSITION)

REPORT?<name>&<time>&<lat>&<long>&<speed>&<course>&<zone>

Name	The system name
Time	The local julian time of the message
Lat.	Current latitude decimal degrees if known
Long	Current longitude if known
Speed	Current speed reported by GPS
Course	Current heading reported by GPS
Zone	Current zone

Alarm

This report is generated when the current active alarm list changes

ALARM?<name>&<time>&<active alarms>

Camfail

This report is generated when cameras fail or restore

CAMFAIL?<name>&<time>&<failed mask>

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Appendix C

The Multicast page allows recordings from the unit's camera input to be forwarded to a port address. To utilise the Multicasting function (refer to Configuration Menu: Network Settings->Multicast SetUp for guidance).

This system has been validated using the 'Videolan VLC media player for MS Windows. The Videolan VLC media player can be downloaded free of charge from:

www.videolan.org/vlc/download-windows.html

Note: *Mulitcast can only used for live viewing, requests for stored images and events will still need to be made via the Viewer menu.*

To configure your PC to utilise VLC

Version 1.0.5 ¶

* Select Media | Services Discovery | SAP announcements
* Select View | playlist | SAP Announcements

All video servers with multicast enabled should then appear in the playlist window. Double click a server to start streaming data from it.

Version 0.8.6 ¶

* In VLC select Playlist -> Manage -> Services Discovery -> SAP Announcements
* Wait for the server to appear under "Session Announcements (SAP)" in the Playlist window.
* Click on one of the items advertised by the server.

The server broadcasts SAP announcements periodically, the packets contain SDP entries which describe the stream contents for each multicast enabled camera. VLC listens for SAP announcements and adds them to the playlist.

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Appendix D

An Internal GPS can be imbedded in the unit and connected internally to COM 2. To activate this option, the 'GPS' option must be selected via the Feature menu (Configuration menu:System Settings->Features). External GPS can be used, either from serial or Ethernet port forwarding. To activate this option, the 'External GPS' option must be selected via the Feature menu (Configuration menu:System Settings->Features) Selecting the External GPS option enables GPS data from any source to be recorded in the image header and be viewable in embedded data.

To use a GPS module on a com port, the user must:

1. Enable GPS in the features menu
2. Set com port to correct baud and Port Config to "General"
3. Edit \mdd0\etc\paths.ini like so:-

```
[PATH_GPS]
input_path=/tool/COM2
output_path=/tool/pipe/GPS
buffer_size=128
```

To use GPS via Ethernet, the user must:

1. Enable GPS in features menus
2. Set port forward on GPS device/router to 4040
3. Edit \mdd0\etc\deamons.ini like so;-

```
[GPS_IP_INPUT]
port=4040
path1=\pipe\GPS
persistent=1
delim=10
output_format=text
input_format=text
```


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Appendix E

Unit Specification

LANGUAGES

Including: English, French, Italian, German, Spanish, Russian Czech, Danish, Finnish, Norwegian, Swedish, Dutch

CAMERAS

8, 12 or 16 camera inputs available. Auto detection on power up.

MONITOR VIEWING

Main monitor:

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

Spot monitor: Full screen, sequence.

The spot monitor is capable of alarm switching

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

6 normally open/closed tamper proof alarm inputs
Keyswitch alarm.

2 relay outputs.

AUDIO

Two audio in and one audio out for bi-directional audio

The unit supports the monitoring of live and recorded audio via a UDP connection or via a TCP connection inline with the video being monitored

Bi-directional Audio channels are configurable to support Network transmission of audio, for use as help points, and for audio challenges

Audio is controllable over the network using an appropriate application such as NetVu Observer to establish a bi-directional audio link

Each audio channel is configurable for sample rate and Gain

SEARCH AND PLAYBACK

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

RECORDING

Records to the internal hard drives on a first in, first out sequence

Auto-detect connected cameras and begin recording automatically upon power-up

Time-base correction to eliminate the requirement for external camera synchronisation

Globally configure record settings for all cameras.

Global profiles shall include:

A. JPEG record profiles

B. MPEG record profiles

C. Multimode record profiles

Advanced setup method to allow record settings to be configured for individual cameras.

The following shall be configurable:

A. Compression: MJPEG or MPEG4

B. Resolution from QCIF to 4CIF

C. MPEG4 stream rate

D. MJPEG File size from 5 KB to 45 KB

E. Record frame rate 1 to 25 PPS PAL 30 PPS NTSC

Different record profiles available when in normal and event mode and when the system is set or unset

MPEG4 recording possible to specify the ratio of P frames to every I frame

The maximum frame rate of an individual camera is 25(PAL. 30 (NTSC. pps CIF)

The maximum global frame rate is 200/240 (PAL/NTSC pps) in CIF

Option to protect images or crucial incidents from being overwritten

Global trigger light duty relay output (600mA. to advise ofcamera fail

EVENT COPYING

Event sequences and user defined recorded sequences can be saved to an external flash drive through the USB port.

NETWORKING CAPABILITIES

A standard Ethernet connection allows live and recorded viewing on a networked PC using NetVu ObserVer software. Webpages are available for configuration and live viewing using a standard web browser

TELEMETRY

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

A. DM-RS485
B. Ernitec
C. JVCKalatel
D. MarkMercer
E. Panasonic-WV-CS600
F. Panasonic-WV-CS850
G. Pelco-P
H. Pelco-D
I. Philips
J. Samsung
K. Sanyo
L. Sensormatic
M. Ultrak
N. Vantage
O. VCL
P. Vicon

Coax telemetry for the following telemetry protocols:

A. Baxall-C
B. BBV-C
C. Dennard-C
D. Pelco-C

RS232 serial telemetry for the following telemetry protocols:

A. Philips-232
B. DM-RS232

IP telemetry for the following telemetry protocols:

A. DM-IP
B. AXIS-IP
C. JVC-IP

Telemetry control available from the following interfaces:

USB Mouse using Point and Go

Advanced Telemetry control allows Oracle Domes to be controlled by a USB mouse,

The monitor supports electronic zooming of Megapixel resolution cameras using via mouse control

IP CAMERA SUPPORT

Each analogue camera input can be replaced by an IP camera

JPEG streams from the following IP sources are supported:

A. Dedicated Micros…
A1. NetVu Connected Server and Encoder ranges
B. Axis…
B1. 206
B2. 211
B3. 211a
B4. 214
B5 223m
B6. 2120
B7. 214Q
C.. VC...
C1. VN-C20
C2. VN-C655
C3. VN-C625

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MPEG streams from the following IP sources are supported:

A. Dedicated Micros…

A1. NetVu Connected Server and Encoder ranges

A2. DV-IP Codec

A3. DV-IP Encoder

The following Megapixel IP cameras are supported

A. Dedicated Micros…

A1. CamVu200

Electronic Pan Tilt and zoom functionality shall allow the operator to display a selected area of a Megapixel image for live or replay viewing

ARCHIVING

Archives selected video images and alarm partitions

Ethernet network connection to allow recorded images to be archived

Record to internal hard drive while archiving

Generates an optional MD5 digital watermark of images archived to the FTP server

Clear protection from images when download is complete to allow disk reuse

Copy video associated with events when the event occurs, at a specified time or when manually triggered to do so

Archiving of video data to USB mediums between specified times

A viewing application shall optionally be included on the selected archive medium

WEBCAM

Web Cam function allows cameras to transfer images via FTP to a web server for integration into a web site

Each video input can be individually enabled for web cam operation

FTP download on a timed basis using a dwell time setting

Image resolution of the FTP image configurable

Option for the function to be disabled, permanently enabled or enabled for certain time periods

TEXT SUPPORT

Serial and TCP interfaces supported to allow text streams from EPOS and other text generating devices

POWER MANAGEMENT

Power management feature includes:

A. Ignition off timeout

B. Low supply timeout

C. Minimum operating supply

D. Nominal operating supply

E. Caddy / CF Hot Swap

F. Ignition Sense enable/disable

G. Power Retry enable/disable

H. Power retry count

I. Power retry timeout

Change over relay where power can be routed out from the TransVu to peripheral devices ensuring all CCTV components can be managed

GPS

GPS for use to obtain positioning information

The GPS function allows the report to be sent at set intervals, this shall be configured in minutes

Allows the positioning report to be set at a set distance; this shall is configurable in miles

Allows a GPS tracking route to be selected to generate a report and database event on a route change

ACCELEROMETER

Accelerometer to obtain G-Force information

Supports up to 2G or 8G for data logging, configurable from webpage. The lower setting enables a greater resolution which is suitable for cornering and poor road surface statistics. The higher resolution is more suitable for extreme measurements such as crash data

Support 3 axis of movement. Acceleration, Deceleration, Up, Down, Left, Right

RESOLUTION

QCIF, CIF, 2CIF,4CIF,

COMPRESSION

JPEG & MPEG-4 format files.

User definable file size and bit rate.

ENVIRONMENT

When diskless shall be operational in temperatures ranging from 23 – 158 degrees Fahrenheit (-5 to 70C).

With disks operational in temperatures ranging from 41 – 131 degrees Fahrenheit (5 to 55C).

With solid state disks operational in temperatures ranging from 23 – 158 degrees Fahrenheit (-5 to 70C)

Operational in a relative humidity range of 5 – 85%, non-condensing

PHYSICAL PROPERTIES

120mm (H) x 253mm (W) x 317mm (D)

Base plate measures 317mm x 253mm

Unit requires mounting space measuring 170mm (H) x 370mm (W) 319mm (D)

Weigh (6.2 KG) (25.1 pounds)

Support the option to be mounted horizontally or vertically using the appropriate mounting brackets

Mounting brackets, a mounting plate, screws and nuts for mounting the TransVu to the plate are provided

Mounting rubber shock absorbers provided

Associated specialised connectors for weather proof connections are available as a separate product item

Notes

Index

Accelerometer ... 88
Accessing & Configuring the Unit ... 18
Accessing the menus on a local monitor ... 18
Accessing the menus on a PC web browser ... 18
Activity Setup ... 92
Advanced Record ... 68
Alarm Input ... 80
Alarm Settings ... 79
Alarm Status ... 28
Analytics ... 115
Analytics & Text ... 114
AoE Setup ... 78
Appendix A ... 158
Appendix B ... 159
Appendix C ... 163
Appendix D ... 164
Appendix E ... 165
Archive ... 119
Audio ... 40
Before you start ... 8
Camera ... 58
Camera Settings ... 57
Camera Settings ... 128
Camera Setup ... 61
Camera Telemetry ... 62
Command Format ... 159
Console Settings ... 47
Data Logging ... 87
Display ... 50
E Mail ... 105
Event Search ... 131
Event Settings ... 130
Features ... 4
Features ... 41
Firewall ... 113
FTP Download ... 111
Global Actions ... 96
GP Output ... 37
GPS Status ... 30
Holiday & Weekend ... 75
Important Safeguards ... 7
Installing the Unit ... 9
Introduction ... 3
IP Camera ... 60
IP Record ... 70
Keyword ... 118
Language ... 32
Live Transmissions ... 101
Main Menu ... 20
Maintain ... 44
Map Config ... 52
Map Data ... 54
Masked Cam Detection ... 86
Mirroring ... 63
Multicast Setup ... 103
Navigating The Configuration Menus ... 22
Network ... 99
Network Settings ... 98
Notes ... 168
Operating the Viewer ... 133
Oracle Dome Configuration ... 120
OSD Settings ... 127
Patrols ... 124
Physical Installation ... 10
Power Management Page ... 38
PowerScript Mgmt ... 46
Power Status ... 29
Presets ... 122
Privacy Masks ... 125
Profile Record ... 66
Protect Video ... 76
Record ... 65
Record Settings ... 64
Remote Reporting ... 107
RVRC ... 73
Schedule ... 71
Sectors ... 123
Serial Ports ... 35
Simple Record ... 66
SMS Commands ... 159
SMS Configuration ... 159
SMS Reports ... 160
Software Menu ... 25
Status ... 121
System ... 24
System Settings ... 23
Text In Image ... 116
Time and Date ... 33
Unit Specification ... 165
Unit Status ... 26
User Accounts ... 55
User Activity Logging ... 158
Viewer Defaults ... 48
VMD/Activity Response Setup ... 90
VMD Configuration ... 94
Web Cam ... 109
What is the… ... 3
Zone Actions ... 84
Zone Input ... 82

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