NEW **DIGITAL** **sprite** 2

NetVu CONNECTED

Professional Connected CCTV

The New Digital Sprite 2 provides true flexibility to any CCTV security solution. An intuitive interface allows easy local user operation whilst IP connectivity provides remote monitoring and system configuration via Dedicated Micros' 'NetVu Connected' software.

Internal hard disks provide more than 2 months high quality, continuous digital recording, with an option to record up to 120pps. Dedicated Micros RAID and JBOD units may be used to extend the storage solution.

High quality recordings are accessible locally to the user at the touch of a button or via powerful GOTO and event recall facilities. Remote operators can utilise the latest MPEG-4 compression technology to view images via NetVu ObserVer or embedded DV-IP Decoders.

The single box solution includes in-built co-axial & twisted pair telemetry that enhances the range of DS2 applications.

Variable alarm configuration allows remote notification of alarms from any single DS2 through a variety of communication channels. Pre-event alarm recording ensures images are captured before the incident occurs whilst on-site communication can be maintained through high quality bi-directional audio.

A built in DVD-R writer provides a quick and easy way of copying key events to DVD or CD on-site while FTP archiving allows evidence transfer over the network, automatically or on demand. Digital watermarking identifies and eliminates any tampering with recorded images.

The DS2 provides a self-contained local security solution whilst ensuring that the requirements of remote 24 hour surveillance are met through Dedicated Micros' professional 'NetVu Connected' solution deployed over new or existing IP enabled networks.

Features & benefits

- INSTANT ACCESS TO 2 MONTHS OF HIGH QUALITY RECORDINGS*

- BUILT-IN INTERNAL DVD-R (DVD WRITER)

- SIMULTANEOUS MPEG-4 TRANSMISSION AND JPEG RECORDING

- COMPATIBLE WITH DEDICATED MICROS RAID AND JBOD DEVICES TO PROVIDE ADDITIONAL STORAGE

- SIMULTANEOUS RECORD, PLAYBACK, LIVE VIEWING, ARCHIVING AND MULTIPLE USER NETWORK VIEWING WITH NO LOSS OF RECORDING PERFORMANCE

- VARIABLE RECORD RATES PER CAMERA UP TO 120PPS

- RAM PRE-ALARM RECORDING TO CAPTURE EVIDENCE BEFORE ALARMS ARE TRIGGERED

- INSTANT REMOTE ALARM MONITORING USING ETHERNET OR PPP MODEM LINK

- DIAL-OUT ON ALARM AND ALTERNATIVE SIGNALLING PATH

- INTEGRATED PSU

- NETVU CONNECTED

- ALARM NOTIFICATION VIA E-MAIL AND SMS

- IMMEDIATE ACCESS TO ANY TIME/DATE VIA INSTANT GOTO CAPABILITY

- IP CONNECTIVITY AND REMOTE MONITORING FUNCTIONALITY

- VIDEO MOTION SEARCH ALLOWS SEARCH BACK THROUGH RECORDINGS FOR MOVEMENT IN A SPECIFIC AREA OF THE IMAGE

- WEB BASED CONFIGURATION ALLOWS REMOTE SYSTEM ADJUSTMENTS NEGATING THE NEED FOR SITE VISITS.

- MULTIWAY DUOVIEW FOR LIVE AND RECORDED VIEWING SIMULTANEOUSLY

*Applies to 600GB models recording at factory default setting of 6PPS with 18KB file size

VIDEO MOTION DETECTION

Programmable 16x16 grid with 5 levels of sensitivity for each camera view.
16 advanced VMD trigger zones with individual sensitivity on a 80x64 grid for each camera
Options:
• Up to 15 minutes of protected pre and post activity recording per event
• Protect VMD images from overwrite for configurable period of time
• Main monitor display of last VMD camera, or all VMD cameras in sequence or multiscreen
• Buzzer activated on VMD
• Light duty relay output triggered on VMD activity
• Instant messaging to remote network client on VMD
• Automatic archive of VMD to FTP server or DVD-R/CD-R

FALSE ALARM SUPRESSION

Advanced alarm zones added to DS2 allow you to combine multiple detection sources to minimise false triggers. E.g. you can set an alarm to be triggered by a combination of a PIR and Camera VMD to remove miss-triggers from either source. Added to this, each alarm input can be temporarily disabled by a remote administrator to ensure that faulty detectors do not mask real alarm incidents.

INSTANT ALARM REPORTING

The system can dial-out on alarm to a remote site to provide instant alarm notification.
• Instant alarm reporting
• Dial-out on alarm
• Alternative signalling path

E-MAIL & SMS NOTIFICATION

Emails can be sent on alarm or other critical events.
Notifies the following events on a camera by camera basis:
• Alarm
• Activity
• Camera fail
• Power up
Access to mail server via Ethernet or dial-up is required for this feature. Short Message Service texts (SMS) can also be sent to a specified mobile phone number, via an SMS capable modem.

AUDIO

The user has the option to record and play back audio through the unit in real time. Recorded with images, audio can be played back directly from the unit via powered external speakers.
The system can also receive audio from a remote network viewer and play it directly out of the unit for audio challenge or help point applications.
Recorded audio is automatically copied when video is archived to DVD-R/CD-R or exported across a network.
Connections:
Line in: 47K. input impedance, 1V pk-pk, RCA phono socket
Line out: 1V pk-pk, RCA phono socket

NetVu CONNECTED

DS2 now has NetVu technology built-in to ensure maximum compatibility with future developments in networked security. NetVu technology enables the new DS2 to fully interoperate with other NetVu compatible products from DM including the DV-IP Decoder, Multi-site PC Viewers and PDA Viewers. Providing interoperability between the worlds leading security companies, NetVu uses industry standard networking protocols supported by a wide range of third-party integration products and SDKs to ensure on-going compatibility for the future.

WEB BASED CONFIGURATION

Web based configuration enables system adjustments to be made remotely to a networked unit, such as change the record rate, set up the advanced VMD grids, program presets and more – without the need for a site visit.

NETWORK CAPABILITIES

A standard Ethernet connection allows live and recorded viewing on a networked PC using DM's NetVu ObserVer software or via web pages using a standard Internet browser. Network viewing is independent and does not affect the recording or local operation. The Digital Sprite 2 includes a network bandwidth limitation option, which allows the bandwidth used by the Digital Sprite 2 to be capped. For low bandwidth remote network links, viewing applications can request that video is sent in MPEG-4 format, while local network viewers can simultaneously view using high quality JPEG images.

NetVu ObserVer software and Web page features include:
• Live full, quad, 6, 9 and 16 way screens
• VCR style fast forward and rewind, playback and frame advance/ rew
• GOTO time and date
• File export of digitally signed images over the network to the user's PC using NetVu software
• Archived images can be viewed using DM's NetVu ObserVer software, supplied with the product and as a free download from the DM website
• Remote manual control of relay output on the unit
• Telemetry control, including PTZ and telemetry presets
• Multiple user access
• Event log
• Network viewing is also available for Mac OSX and Linux

COLOR RESOLUTION

Sampling rate:	13.5 MHz to CCIR 601
Number of pixels:	PAL 720h x 512v
	NTSC 720h x 448v

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

COMPRESSION

Standard JPEG format files with user definable compressed image size for high quality recording.
Simultaneous MPEG-4 network streams for low bandwidth remote viewing.

LANGUAGES

English, French, German, Spanish, Italian, Russian, Czech, Polish, Dutch, Hungarian and Swedish

DATA

SCSI - 50-pin HD SCSI-2 connection
NET - RJ-45 10/100 Ethernet connection
485 BUS - 2x MMJ ports for DM 485-BUS accessories
SERIAL 1 - 9 way (Male) D Type RS 232 serial port
SERIAL 2 - 9 way (Male) D Type RS 232 serial port
BUS A - RS-232 serial port or RS-485 telemetry port 1.
BUS B - RS-232 serial port or RS-485 telemetry port 2.

DVD-R

Built in slim-line DVD-R writer for DVD-R and CD-R Media

TEMPERATURE RANGE

Operating temperature 41 – 113°F (5 – 45°C)

RELATIVE HUMIDITY

10% - 85% Non-condensing

DIMENSIONS

DVR: 89mm (H) x 440mm (W) x 445mm (D)
3 1/2 " (H) x 17 5/16" (W) x 17 1/2" (D)
Optional Keyboard: 65mm(H)* x 410mm (W) x 183mm (D)
(* 100mm including Joystick)
2 9/16" (H)* x 16 1/8" (W) x 7 1/4" (D)
(* 4 1/8" including Joystick)

WEIGHT

DVR: 25.1 lbs (11.4 kg) with built-in PSU

POWER SUPPLY

DVR: 180W Internal Power Supply
Input Voltage: 100-240 V AC 50/60 Hz

WARRANTY

3 years warranty including HDDs

Specification

CAMERAS
6, 9 and 16 camera models available. Auto detection on power up.
Loop through BNC connectors provided for each camera input.
Alarm on Camera Fail

HIDDEN CAMERAS
Option to view all or selected cameras, without affecting cameras
recording.
Hidden cameras can be viewed via the network.

MONITOR VIEWING
Main monitor (S-Video & Composite):
Full screen, programmable sequence & alarm switching.
Programmable multi-screens: picture-in-picture, quad, 5+1, 4+3,
9 way, 8+2, 12+1,16 way x2 electronic zoom, freeze frame.
Spot monitor: (Composite)
Full screen, programmable sequence & alarm switching.

SEARCH AND PLAYBACK
VCR style keys offer:
• One button touch
• 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 full screen and muliti screen
• Simultaneous live and playback on screen

MULTIWAY DUOVIEW
DS2 has traditionally provided playback in full screen, picture in picture and
quad display modes. Now you can choose to playback in any multiway
display mode, right up to 16-way. For ultimate flexibility you can now have
any combination of live and recorded segments on the multiway view,
allowing you to review recorded material, while keeping an eye to ongoing
surveillance.

VIDEO MOTION SEARCH FACILITY
Allows the user to search through hard-disk recordings for movement in a
particular area of the image, set up on a 16x16 cell grid. The unit is then
able to search back through the hard drive and create a list of activities for
the user to view and archive as required. Searching can also be filtered to
limit the search to user-defined times and dates.

VARIABLE RECORD RATES PER CAMERA
Cameras connected to the Digital Sprite 2 can be recorded at specific
rates for day, night and weekend schedules. This allows cameras in sensitive
areas to be recorded more frequently than cameras located in less
sensitive areas without affecting the record rate on other cameras.

RECORDING
Playback and record to hard disk simultaneously.

A choice of hard disk options are available including the latest 600 GB
storage option. Please contact customer services in your region or check
the website at www.dedicatedmicros.com
Please note drive sizes may vary from time to time which may result in a
larger drive capacity than stated being supplied with the unit.

At time of press the maximum internal storage for the DS2 is 600GB,
providing 2 months of digital recordings at factory default settings
Protected images:
The system can be configured to protect images from being overwritten
permanently or for a fixed period of time, when an alarm is activated. The
end user can also manually configure sections of recorded images to be
protected from overwrite, and remove protection.

RECORD RATE
The standard Sprite 2 can record 2 asynchronous cameras at 50PPS
(PAL), 60PPS (NTSC). Models are also available that can record 4
asynchronous cameras at 100PPS (PAL), 120PPS (NTSC).

EXTERNAL RAID DEVICES
We recommend that only DM approved external RAID devices should be
used with the DS2 range.
Please contact Technical Support in your region for further information on
recommended devices or visit the web site at
www.dedicatedmicros.com/support

The table below shows the disk size required for low, medium and high
image qualities, at the equivalent of 24 hour record speeds - 6 PPS (shared across
all cameras), and audio disabled.

RECORD DURATION	IMAGE QUALITY*		
	LOW	MEDIUM	HIGH
	14K	18K	25K
	DISK SIZE		
1 day	9GB	11GB	14GB
7 days	53GB	68GB	94GB
31 days	231GB	297GB	412GB
62 days	463GB	595GB	825GB

* Please refer to our record calculator on the DM website for
  other possible calculations.

FLASH DISK OPERATION
To ensure that surveillance and alarm reporting functions are unaffected in
the unlikely event of HDD failure, the DS2 has a built-in Flash Disk
containing all the essential program and configuration data.

SCHEDULING
Choice of day, night or weekend scheduling offers the ability to
automatically:
• Select the cameras to be recorded
• Switch alarms and activity on/off
• Alter the record rate for standard, alarm and activity recording
Activation is via timer or alarm panel link to Alarm input

TIMED EXPIRY
• Timed expiry option allows images to be held for a selected number of
  days
• Images on the disk which are older than the number of days selected
  are not accessible

EVENT COPYING
Individual images, event sequences, audio and user defined recorded
sequences can be saved to the internal DVD-R drive of DS2.
The DVD or CD images are digitally signed for authentication purposes.
Playback of images from the DVD or CD is via a standard DVD-ROM drive
(CD-ROM for CD-R media). The DVD/CD playback software will auto-run
and does not require the installation of software on the users PC.

DIGITAL SIGNATURE
The use of digital signatures makes it possible to detect whether a single
image or a sequence of images has been tampered with.

ALARMS
16 normally open/closed alarm inputs available via on board 25 way D-type
connection (expandable via optional remote alarm module C101).
Up to a total of 8 contacts may be assigned to each camera input. Multiple
alarms can trigger one camera and/or 1 alarm can trigger multiple cameras
Options:
• Up to 15 minutes of protected pre and post alarm recording per event
• Protect Alarm images from overwrite for a configurable period of time
• Main monitor display of last alarm camera or all alarmed cameras in
  sequence or multiscreen
• Trigger telemetry preset on alarm
• Capture additional still image at moment of alarm
• Buzzer activated on alarm
• Light duty relay output triggered via alarm zone
• Instant messaging to remote network client on alarm
• Automatic archive of alarm video and audio to FTP server or
  DVD-R/CD-R

RAM PRE-ALARM
Each camera input can continuously capture a configurable number of
images at a user defined capture rate into a RAM buffer. When an event
occurs, the images captured before the alarm event are recorded to disk,
allowing the viewer to see enhanced evidence leading up to the event.

KBS3A
remote keyboard

TELEMETRY DATA

Built-in RS485/Twisted pair protocols provide direct control of the following domes:
- Dedicated Micros Dennard 2040 to Dennard 2060
- JVC TK-C675BE, TK-C676 & TK-C553E
- Ultrak Ultradome™ KD6
- Ademco Orbiter & Jupiter Microspheres™
- GE CyberDome™
- BBV RS485 StarCard
- Bosch/Philips G3
- Ernitec
- Mark Mercer
- Panasonic WV-CS850A, WV-CS854, WV-CW860 external
- Sensormatic SpeedDome™ IV & SpeedDome™ V
  (with 4-wire RS-422 support)
- Pelco P Spectra II, Spectra III
- Samsung SCC-641
- Vista Power Dome
- Vantage Juno Dome

COAX TELEMETRY
- BBV
- BBV RX100
  (protocol converter for control of major manufacturer's domes)
- Pelco Spectra II & III

(Please note that patrol modes are not available)

REMOTE KEYBOARD OPTION

Keyboard features include:
- Joystick control of telemetry camera with twist zoom facility
- Wash/wipe, focus, iris, lamps, preset, patrol and auto-pan keys
- Up to 16 DS2 units can be controlled from one keyboard – up to 16 keyboards can be connected to the 485 BUS providing a flexible configuration e.g.: 1 unit can be connected to 16 keyboards
- Onboard LCD identifying connected unit name and number
- May be connected directly or remotely via 485 BUS cabling (please note maximum cabling distance is 1500 meters)

IR REMOTE CONTROL

Provides operator with remote front panel control of single or multiple racked units including:
- The ability to change cameras and camera views
- Search using the GOTO function and review of the event list
- Playback of images from the hard disk

BUILT IN DVD WRITER RANGE*

6 camera color duplex with DVD-R	60PPS	DS2A 6DVD
9 camera color duplex with DVD-R	60PPS	DS2A 9DVD
16 camera color duplex with DVD-R	60PPS	DS2A 16DVD
6 camera color duplex with DVD-R	120PPS	DS2P 6DVD
9 camera color duplex with DVD-R	120PPS	DS2P 9DVD
16 camera color duplex with DVD-R	120PPS	DS2P 16DVD

COMMON ACCESSORIES

Optional remote keyboard	KBS3A
Additional IR Remote Control	IR REMOTE
Video switcher	VS16
Remote Alarm Module	CIO1
Relay Output Module	CIO2

*At launch the DS2 will be available in 9 and 16-way models (160GB and over) at 60pps, the 6-way, 80GB and 120pps models will become available shortly.

*PLEASE CHECK THE WEBSITE FOR DETAILS OF COMPATIBLE PRODUCTS AND OTHER LATEST DEVELOPMENTS