



July 2016

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Thermal Imaging

Does it offer value for money?



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Benchmark Best Buys

When testing products, Benchmark appreciates that there are numerous approaches to any single security problem, and with varied solutions comes price differentials. We understand that every application has budgets, and so solutions must offer the right price/performance ratio. Those products which deliver the best ratio are rated as 'Best Buy'. Here Benchmark looks back at some recent products which achieved 'Best Buy' status.

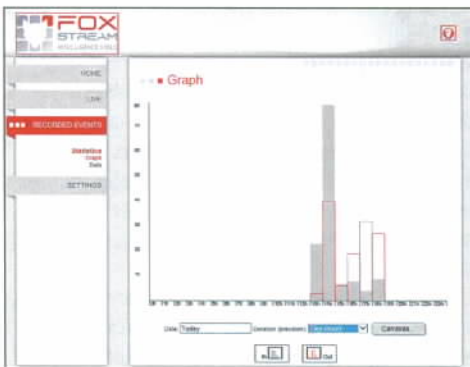
FoxStream: FoxCounter

FoxCounter is a dedicated people counting application from French company FoxStream Intelligence Video. The application can be used for bi-directional counting, and therefore can also be used to measure occupancy of an area as well as to track traffic trends.

FoxCounter is available for the Samsung Techwin Open Platform and the Axis Camera Application Platform. The application is supplied as an 'all-in-one' .file, along with a simple PDF instruction manual.

FoxStream does not recommend using the camera running the App for other surveillance purposes, and mounting needs to be above the counting area, at a height of between 2.5 and 6 metres.

Recorded counts can be saved and exported as a .csv file, or displayed as a graph. The App delivers a degree of customisation with regard to how the count data is viewed.



GJD Security: D-Tect3

The D-Tect3 from GJD Security is an external volumetric motion detector with a range of 30 x 30 metres. The dual-tech detector makes use of both PIR and 10.587GHz microwave technologies. Mounting height is 3 metres, but this can be increased to 6 metres if required.

Dallmeier: DF5200HD-DN

The DF5200HD-DN is a networked day/night camera which delivers HD1080P streams. It utilises H.264 and M-JPEG compression, and multiple streaming is supported.

The camera includes an integral 4.5–10mm varifocal motorised lens. The camera features a 1/1.9 inch image sensor, and sensitivity is claimed to be 0.0002 lux.

Other features include edge storage, P-Iris support and 120fps with an optional upgrade. Power is PoE or 24V AC.

The Dallmeier DF5200HD-DN is a camera that will make most installers and integrators smile. The image is pin sharp, low light performance is good, and because the lens is factory configured, it is easy to achieve the best quality. Processing is well implemented too!

Other features include integral EOL resistors, variable temperature compensation and light sensing, and pulse count. The housing is specified as IP65.

The D-Tect3 is the epitome of a sensor designed for use with a video surveillance system. Mounting flexibility includes the ability to tilt the detector through 45 degrees and pan through 90 degrees.

Additionally, the detector features installer-adjustable 'curtains' which allow the coverage pattern to be adjusted if required. This, along with more traditional masking, ensures that the detector's field of view can easily be customised.

Replacement tamper switches also allow for uneven mounting surfaces, simplifying installation.



Bosch Dinion IP starlight 8000

The Dinion IP starlight 8000 is a 5 megapixel camera, and makes use of a 1/1.8 inch CMOS sensor. It delivers real-time video footage at 5MP in 16:9 (2992 x 1680) and 4:3 (2704 x 2032) aspect ratios, along

with HD1080p and HD720p streams.

It also supports a wide range of standard definition streams.

The camera is a true day/night unit

and supports the use of H.264

and M-JPEG compression. Multiple

streaming is available with user-configurable frame rate and bandwidth for each stream. Regions of Interest (ROI) are also supported.

Quoted sensitivity figures are 0.0121 lux in 5MP mode, or 0.00825 lux in HD1080p mode. Both figures are quoted for a 30IRE image.

Other features include 97dB WDR, two-way audio, intelligent automated exposure, bit-rate optimisation, edge storage via an integral MicroSD memory card slot, posting of alarm images to Cloud services and storage management.

The 8000 supports intelligent video analysis. It allows the use of up to eight rules from a choice of object within detection field, line crossing, loitering, condition change, person following route, camera tampering, object left, object removed, entering a defined area, exiting a defined area, crowd detection and people counting.

Panasonic: WV-SFN480

The WV-SFN480 is a networked 9 megapixel 360 degree camera. It utilises H.264 and M-JPEG compression, and delivers a 2992 x 2992 pixel video stream at 15fps. It can also deliver video streams of 2048 x 2048 pixels at 25fps.

There are a variety of other viewing configurations. The camera streams the 360 degree view and uses client-side dewarping. Using a 1/2 inch MOS sensor, sensitivity is quoted as 0.3 lux (F1.9).

Bandwidth management is aided by the VIQS functionality. This allows image quality to be varied between regions of interest and other areas in the protected space.

Other features include digital noise reduction, WDR,

adaptive black stretch,

intelligent motion

detection, privacy

masking, two-way

audio, alarm I/Os

and SD-based

edge recording.

There are

intelligent video

analytics and heat

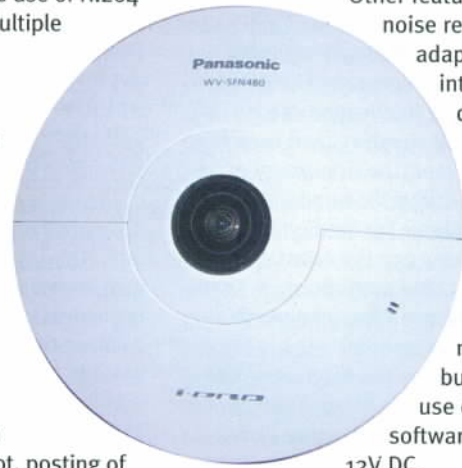
mapping features,

but these require the

use of extension

software. Power is PoE or

12V DC.



Milestone: XProtect Corporate 2016

XProtect Corporate 2016 is the latest version of Milestone Systems' flagship VMS product. Designed for unlimited device support in multi-server and multi-site applications, the VMS is fully functioned and supports interconnectivity with all other Milestone products.

XProtect Corporate 2016 works as a server and client model, but there is a single installer required. This includes the server software, recording server, SQL database, the client and other required elements.

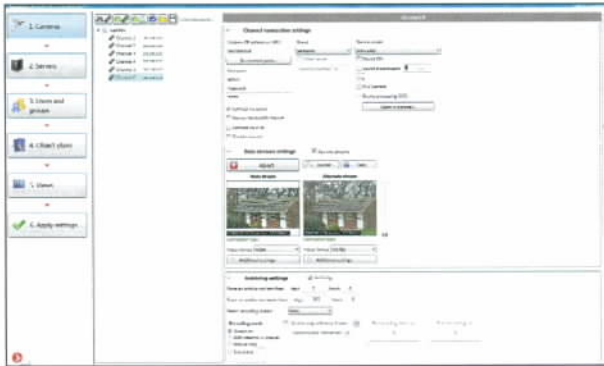
XProtect Corporate 2016 adds some interesting new elements such as the ability to move devices within the system, a system monitor that allows performance issues to trigger alarms, hardware-based encoding to deliver fluid 4K streaming and push notifications.

The depth of functionality which the VMS is based is accessible, and flexible edge recording support enables design freedom. The GUIs were liked by end users and installers alike, and ease of configuration and operation remains key.

Macroscop: Macroscop Ultra

Macroscop Ultra is a software-based VMS available via CCTV Direct. The software delivers support of up to 1,000 IP cameras, and systems can include up to 10 workstations and 5 servers. The VMS can be installed as either a Client and Server arrangement or as a standalone package. Options are available for both 32-bit and 64-bit operating systems.

It offers a high degree of flexibility and advanced operations in a simple-to-use package. The GUI for the installer is functional and well laid out, while the end user gets a



clean and sleek display which offers intuitive operation.

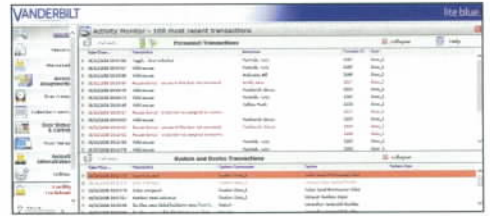
It doesn't have the depth of flexibility some of the other packages offer, but in the majority of applications it delivers enough.

Fujinon: DV2.2x4.1SR4A-SA2L

The DV2.2x4.1SR4A-SA2L is a varifocal DC-iris lens with a focal length of 4.1-9mm and an aperture of F1.6. It is rated for 6 megapixel video, making it suitable for HD1080P cameras; the manufacturer also states that it is suitable for 4K (8 megapixel) applications.

The lens is a 1/1.8 inch format unit, catering for the larger image sensors which are now common in higher end HD and 4K cameras.

It is rated for day/night use and features an IR compatible coating to address focus shift under artificial illumination. The lens measures approximately 62 (L) x 65 (W) x 68 (H) millimetres. It weighs in at 130g.



Vanderbilt Industries: Lite Blue

Vanderbilt's Lite Blue is a two door browser-based access controller. It can be expanded to support up to eight doors. The system is capable of managing 5,000 users.

It includes functionality such as door status monitoring, lock-down, scheduling, anti-passback and event notifications via email. There is also the ability to integrate video with the solution.

The installation and configuration is simple, the flexibility on offer is more than enough for most sites, and its intuitive nature shines through.

Performance-wise, Lite Blue does everything you'd expect from a modular system, and bit more. Features like anti-passback, facility lockdown and integration with other systems including video are underpinned by flexible scheduling and advanced personnel management.

Takex: TXF-125E

The TXF-125E is a battery powered active infrared beam detector. The batteries can be used to power a wireless transmitter through a battery sharing function. The detectors feature an increased beam pitch, in common with the hard-wired versions of the sensor. Takex claims that this reduces occurrences of nuisance activations.

The TXDF-125E has a quoted range of 100 metres. Range is selectable, and other options are 75, 50 and 25 metres. The manufacturer states that unit power is 100 times greater than required to deliver consistent performance in harsh conditions.

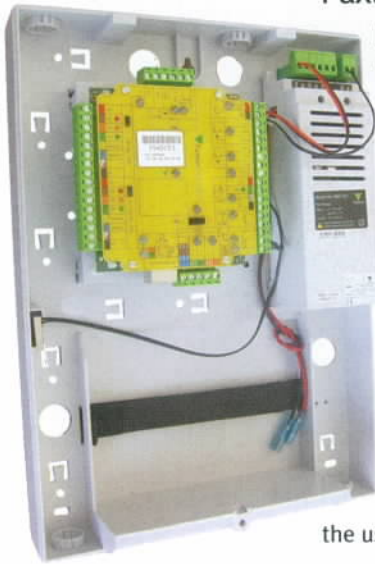
The modulated pulsed beam can be set at one of four frequencies to prevent cross-talk.

The detectors are designed for fast optical alignment; an optional wireless alignment checker is also available.

Battery life is quoted as five years.



Paxton Net2 plus starter kit



Paxton offers the Net2 plus starter kit as an entry-level point to its flexible and modular Net2 range. The kit is supplied boxed and includes a single door Net2 plus controller with a 2A power supply mounted in a plastic housing, a KP50 proximity reader with integral keypad, a Net2 desktop reader, request-to-exit button, a copy of the Net2 software CD, a reader connector port module plus 'demo' credentials.

This latter item consists of one keyfob, one magstripe card and one stripeless card. There is also a network cable included.

Once configured, the system works well, is reliable and dependable, and the user experience is good.

Wavestore: Wavestore v6

Wavestore v6 is the latest release of the company's VMS solution. It is available as both a software and appliance-based solution.

The software is available in three variants: Base, Premium and Enterprise. Base is limited to 24 cameras per server, 2 client connections and 1 server group. Premium can manage up to 128 cameras per server, 5 client connections and 5 server groups, while Enterprise supports up to 254 cameras per server, unlimited client connections and 255 server groups.

The Wavestore VMS is equipped to control video sources (including 360 degree cameras), video analytics, audio, access control, sensors, perimeter protection systems and alphanumeric data from other devices such as POS and ATM devices.

Version 6 is a 64-bit only package and makes exclusive use of a Linux platform. Wavestore VMS has one of the most installer-friendly set-ups.

The user GUI is clean, well designed and very intuitive. In terms of performance, V6 works well and is consistently stable. It might lack some of the more specialised features of some other VMS packages, but it does what

does well.



Vicon: HD Express

The HD Express NVR series from Vicon has been specifically designed to deliver a cost-effective plug-and-play video solution using high definition network cameras. The series includes 4, 8 or 16 channel models with integral PoE ports for each camera.

Scalability is possible as HD Express units can be managed via the ViconNet VMS. This allows HD Express systems to be added to larger solutions, or multiple distributed sub-systems can be unified via the GUI.

The HD Express works seamlessly with Vicon's V960 and V992 HD1080P cameras.

The NVR supports H.264 HD1080p video streams. Cameras are automatically detected and configured as they are plugged into the unit. The integral PoE switch ensures that there is no need for supplementary cabling or PSUs.



Theia: SL410P

The SL410P is a varifocal P-iris lens with a focal length of 4-10mm and an aperture of F1.4. The lens is rated for up to 12.4 megapixels, making it suitable for use with HD1080p and 4K cameras.

The lens is a 1/1.8 inch format unit. This makes it suitable for use with many of the higher end cameras using the larger chip for HD and 4K video delivery.

Billed as a day/night unit, it features an IR compatible coating to eliminate focus shift. The lens measures approximately 53 (L) x 43 (W) x 50 (H) millimetres and weighs 108g.

