

NAB NEWS 2012

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VIVA Video!

The Holdan team was at NAB 2012 in force. We spoke with the manufacturers we represent to unearth the hottest new products, to find clues about the future of the industry and to give you the lowdown on the game changing technology on show.

We found workflows becoming faster, products becoming more versatile, future-proofing being built-in and the barriers between IT and video utterly demolished.

Most of the equipment in this issue of the magazine will be out by IBC in September, but for the first time ever we think it will still be delivering results for years to come.

We hope you enjoy this edition.

Blackmagic Design stuns NAB with the launch of the **Cinema Camera**



NEW Panasonic 2/3" chip **HPX600**: lightweight, low power draw and future-proofed



Grass Valley announces **EDIUS 6.5** and delivers 10-bit, 3D and 4K editing



Teradek launches the **Cube x55** range with proxy recording and improved performance



Blackmagic's **Teranex** processor and converter appliances gain a Thunderbolt port to become a powerhouse edit device. They also benefit from yet another price drop



Focus **FS-P250 Proxy Recorder** with matching timecode and frame rate management

News from NAB 2012



New lightweight P2 camera is heavy on features

The HPX600 is the ideal camcorder for sports, news and documentary camera operators.

The emphasis is on the user experience: at 3kg, it is an exceptionally light model, comfortable on the shoulders for extended periods. Similarly, its power management system and new high efficiency sensors have been developed to allow the camera to run on battery for hours on end.

In terms of image quality, the 2/3" sensors deliver high f12 sensitivity (at 60Hz) and low noise with a S/N of 59dB.

Currently, the camera can record at up-to 100mb/s (AVC Intra). However, promised updates in the next year will deliver AVC Ultra to the camera, giving access to the next generation codec that is engineered to deliver higher quality AVC Intra, highly efficient AVCLongG 10-bit files and even AVCProxy files. Further details will follow from Panasonic over the coming months.



This package comes complete with the set of full professional features you would expect from Panasonic, such as Chromatic Aberration Compensation (CAC) to maximize lens performance, Dynamic Range Stretch (DRS) function to help adapt to wide variations in lighting, and a

highly accurate flash band detection and compensation software.

The HPX600 will be available in Autumn 2012.

AVC Ultra: the future of production codecs

AVC Ultra is the collective name for Panasonic's professional AVC- codecs, based on the H.264 standard. Together they represent a single workflow for professional users working at different bitrates, colour spaces and resolutions and as such suit productions as varied as the webcast and digital cinema.

The codec group allows users to select according to their quality needs - whether it's 4:4:4, 12 bit, master quality with a range of up -to 4K resolution, or proxy files for fast wireless transmission.

Whether it's at the visually lossless 4K end of the chart or at the level of highly compressed files, AVC Ultra delivers smaller file sizes and enhanced quality pictures. For example, Panasonic's tests show that its AVC Long Gop is twice

the efficiency of current MPEG2-GOP.

Over the next year products will be developed by Panasonic that are AVC Ultra-ready, such as the new HPX600 and the microP2 cards as a way of future-proofing their inventory in time for the full rollout of the codec.

The current AVC Ultra roadmap is still being finalised and more details are sure to emerge over the coming months.

AVC_IINTRA	
2K / 4K	12-bit 4:4:4
AVC_IINTRA	
1080i	10-bit 4:2:2 - 200Mb/s
1080p & 720p	10-bit 4:2:2 - 100Mb/s
	10-bit 4:2:0 - 50Mb/s
AVC_LLONGG	
1080i	10-bit 4:2:2
1080p & 720p	25-50Mb/s
AVC_IPROXY	
	800Kb/s - 3.5Mb/s

4K AVC Ultra camera previewed at NAB

Few details yet available from Panasonic...

microP2: another giant leap

The Next Generation



microP2 is on its way. It is being readied in preparation for 200Mb/s recording yet has the small form factor of SD card. Fast, tiny, reliable, it is also compatible with current P2 equipment via a dedicated adaptor. Giving users maximum flexibility, 3rd party fast SD cards can also be fitted into the adaptor for recording at up-to 50Mb/s.

microP2 is expected to arrive early in 2013 initially in 32GB and 64GB versions. Keep checking www.holdan.co.uk for the latest news.

Why P2?

P2 is used by television companies worldwide, including Reuters, BSkyB, and the BBC as well as the host broadcaster at the 2012 London Olympic Games. The reasons for its success are many, but principal among them are its robust build and reliable performance.

P2 is essentially a RAID array of SD memory cards with an industrial class controller packaged in a tough case. This enables P2 cards to run continuously at high bitrates in all climatic conditions without a glitch, even with careless handling.

The Future

Doubtless capacities will increase, prices will continue to fall. But we expect to see no compromises from Panasonic.

Camera bundle bonanza

Offer 1: Buy an AG-AC130 camera, or a Holdan production kit, and receive 2 x Panasonic RP-SDB32GB1K Class 10 32GB 90Mb/sec UHS-I SD cards worth £250+VAT free of charge.

Offer 2: Buy an AG-AC160 camera, or a Holdan production kit, and receive 2 x Panasonic RP-SDB32GB1K Class 10 32GB 90Mb/sec UHS-I SD cards worth £250+VAT free of charge.

Offer 3: Buy an AG-AF101 camera and claim back up to £430 towards accessories (proof of sale with accessories is required for credit).

Offer 4: Buy an HPX-250 and receive a 64GB P2 Card worth £445+VAT free of charge.

Offers expire: 22nd June 2012

BT-LH2170: it pays to be well-connected

Panasonic's new 21.5" broadcast monitor is a full HD IPS Panel with stunning colour reproduction. As well as delivering faithful colour hues and smooth gradation, it is versatile enough to support stereoscopic production.

However, its flexibility goes further with an incredible array of connectors including 3G-SDI and HD/SD-SDI (with loop-through) HDMI, Digital and analogue DVI-I (Single Link), composite



and GPI inputs, as well as RS-232C and RS-485. This enables it to fit every workflow, being compatible with professional system configurations.

With this range of ports, it is at home in multi-monitor broadcast centres, post or production studios.

Moreover, its tough build and flexible power options also make it an ideal location or OB monitor.

BT-LH2170 is available from November.

AVCCAM owners

AC130 & AC160 updates

The AC160 now benefits from a recording update enabling 1080 50P/60P at 28Mb/s. This is a first for a Panasonic AVCCAM. This upgrade is available online.

The AC130 and AC160 camcorders are in line for a substantial upgrade to their focusing system. An update to assist manual focusing and to accelerate auto-focus ("turbo-speed") will be available soon - at a total cost of £280.



From May, the AC130a and AC160a will be on sale, incorporating the new updates. The price of the new models is still to be confirmed.

3D-ready 18.5" low-power monitor

Sharing the same connectivity as its 21.5" stablemate, the Panasonic BT-LH1850 fits the bill for a broadcast monitor with an impressive 1366 x 768 pixel resolution, high brightness (250cd /m²), and high contrast screen. Like the LH2170, it is suitable for the studio, edit suite or on location.

What marks it out is its low power requirement at only 22W (DC). Consuming less than half the power of the BT-LH1700, the BT-LH1850 is one of the most ECO friendly monitors on the market.

The BT-LH1850 will be available during April 2012.

The AF-101 broadcasts on Sky Arts HD

Case Study: the Panasonic AF101 Multicam Broadcast Shoot



The images feeding through onto the monitors are sharp, detailed and clean. However, it's the subjects that first grab the attention: Rolling Stones' Ronnie Wood and music producer Mark Ronson in lively conversation, headphones on, amid a panoply of chrome guitars, Fender amps and a vintage drum kit.

SomethinElse's basement studio is the scene for the recording of an hour of music and banter. Into this space are fitted the host and his guest as well as four AF-101 camcorders with operators. In the producer's gallery, alongside the mixing desk and audio monitors, there's a fifth camera. Crossing over to the director's station, five HD decks capture the output, with Panasonic LCDs displaying the



action.

Ian Sharp, SomethinElse's Video

Manager explains the conundrum the crew faced: "We are producing TV with the highest production values for a prestige HD channel and we are determined to deliver a high class look. But we had to take into consideration the small space we were working in, so getting the right kit was essential. And as always, cost was a key factor."

Crucially DOP Paul Lucas wanted a camera that would be relatively discreet in a small, intimate studio setting. Moreover, he needed a system that could deliver a shallow depth of field: if the background was not thrown out of focus, the result would be a very flat and unappealing picture. Paul explains:

"The look and feel of the show is relatively moody, and I wanted to deliberately underexpose elements of the black background and set dressing in order to create a differential between the talent and the backdrop. In such a confined space, you have to do as much as possible to separate the subject from the surroundings to create depth and atmosphere."

Paul recommended using Panasonic's large sensor AG-AF101 camera. Smaller and more cost-effective than a traditional broadcast camera or a new digital cinema system, the AF101 fitted the bill in many respects. The system's ability to render a shallow depth of field, its good dynamic range and its compatibility with high quality interchangeable lenses, made the camera seem, at first glance, the ideal model. However, Paul comments that in some respects compromises had to be made:

"The AF101 can be noisy in low light. But we were able to resolve the issue to our satisfaction through in-camera settings and adjusting our lighting ratios in order to keep the noise away from our dark areas, without just crunching all the blacks."

Crucially, the moderate price of the camera hire from VMI Camera Rentals also gave the director the ability to use five cameras for maximum artistic impact.

For Ian, the BBC's announcement that the AF101 was HD broadcast-approved was vital. As with direct competitors to the Panasonic device, true television-ready HD content is available only with use of an external recorder attached to the SDI port. Each camera was therefore tethered to an external recorder to capture full resolution 50Mbps HD in Pro-Res 4:2:2.

The look achieved on the director's monitors is stunning. The blacks are deep, the chrome sparkles and the rugged facial contours of Ronnie Wood are faithfully rendered. Flare is occasionally invited into the shots to give a sense of a live performance, focus points change frequently reflecting the lively banter between the talent and camera pans are fluid and controlled, a beautiful cinematic result.

The Ronnie Wood Show aired on Sky Arts HD.

AF-101: 1080 50P

An update to the Panasonic AG-AF101 was announced at NAB 2012. Importantly the AF101 gains 1080/50P functionality (which can be recorded on-board at 28Mb/s).

While programmes are not currently transmitted at 1080 50P, the format is compliant with the Blu-ray HD standard. Critically it is widely used as a master format.

The update will be available in May at around £200.

Faster focusing for the HPX250: P2 camera upgraded

The HPX250 was very well received by the broadcast and freelance communities. Packing in a 23x zoom, superior low light performance and long recording times, there was little surprise that the camera received H D T V



accreditation from major television companies.

At NAB, Panasonic announced an update to the HPX250's focusing system to assist manual focusing and to accelerate auto-focus. The firmware can be upgraded to take advantage of these new features at no cost.

HPX255 hits the studio

Enlarging its line-up of studio-ready cameras, Panasonic also announced the studio-ready HPX255. It is identical to the revised HPX250, with added compatibility with the AG-EC4 extension

control unit. This device has the ability to control virtually all menu, set-up and gamma functions that can be accessed directly through the camcorder's on-board menu, including shutter, iris, gain, filter positions and detail. The EC4 comes with a 10 meter BNC cable (maximum 50 meters with the optional AJ-C10050G) that will output the menu onto a monitor.

The AG-HPX255 will be available in July.



Focus FS-P250 Proxy Recorder

Enhancing the P2 production workflow, Focus FS-P250 Proxy Recorder records H.264 proxy clips onto SD cards in parallel with the HD files captured by the AG-HPX250 camcorder. Using an optional Panasonic AJ-WM30 dongle, proxy files and metadata can be viewed remotely on wireless devices such as laptops and iPads.

The instant availability of proxy files and access to the metadata greatly assists on-set production. The ease of modifying metadata allows script supervisors to add basic notes, while permitting producers to tag clips, thereby accelerating the editing process.

The FS-P250 captures matching timecode and metadata from the AG-HPX250, instantly viewable via a web interface which can be viewed on a WiFi-enabled mobile device.



The FS-P250 includes software to synchronize proxy clips to original P2 clips and aggregate metadata with the AG-HPX250's files.

The FS-P250 will be available in Q2.

Mobile Asset Management: Proxysys PX-Series Version 7

Today's video professionals count media clips in their tens of thousands. They weigh file sizes by the gigabyte.

Digital asset management aims to secure and safeguard files, enable fast retrieval of the files you want and deliver media where you want and in the format you prefer.

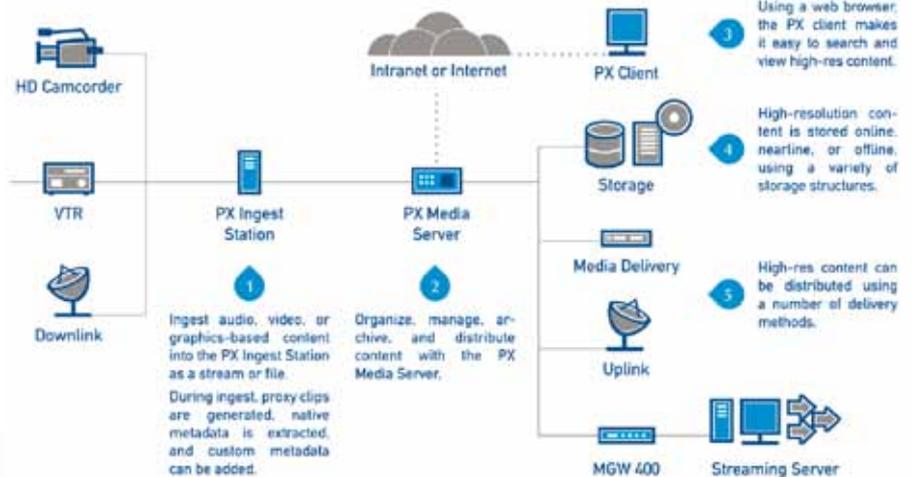
Proxsys solutions have offered this core functionality for several versions. The latest incarnation delivers this and much more, including:

Fast Import of all standard graphics, audio and video formats from tape, files, stream or "On Air" including metadata & timecode.

Fast retrieval of data via intelligent searches. It supports web-preview, thumbnail views and mobile devices while users can be assigned specific access. Rights management is also supported.

Secure archiving options (hard drives, DVD, Blu-ray, LTO tape) and **media delivery** with output to media, streaming portals, video on demand systems, and even digital signage.

For details, please contact Holdan.





TV One: video everywhere

TV One delivers video over low-cost networks and allows broadcasters to use low-cost monitors

HD-SDI scaled and converted to HDMI with HD-SDI loop-through



TV One's VS-640 Series

TV One's CT-650 Series



Send HDMI signals over 100m on Cat5 and Cat6 cables

HD Mobile Studio

Datavideo HS-2000 is a portable 5-channel HD production switcher with audio mixer, 17" monitor and picture-in-picture functionality.



Special Offer: save £120

Always-on professional video monitors



The 50,000 hour lifespan of the TLM "PD" screens from Datavideo make them ideal for broadcast and AV installations where monitoring is an intensive process.

While standard panels will lose their vibrancy over time, these Datavideo appliances are manufactured to industrial grade. Strong build quality also ensures a lifetime of service: the casing is fabricated from robust steel and aluminium. Suitable for all environments, and designed to

withstand long working hours, they offer exceptional value.

Both models in the PD range are professionally featured with HD-SDI, HDMI and composite inputs, two variants are available: single or dual monitor units. Each benefits from on screen timecode display, audio level indicators, colour temperature controls, colour bar generators and blue only function for accurate calibration.



Special Offer

There are money saving offers on both models - see www.holdan.co.uk for details.

CORIOgraphy

... let your imagination dance

CORIOmaster

A new level of video processing for Videowall, Edgeblending, Multi PIP & Multiviewer applications

- NEW CORIO³ processing, with image warp and rotation
- Modularity provides flexibility - up to 32 I/O
- DVI-U³ & SDI (SD/HD/3G-SDI) I/O modules
- Any format I/O with up/down/cross conversion
- Analog: PC resolutions to 2048 x 2048, HDTV to 1080p60
- DVI: PC resolutions to 1920x1200, HDTV to 1080p60 w/CCP
- SDI: SD, HDTV to 1080p60
- Closed-caption de-embed/embed for SDI
- Automatic incoming resolution detection
- Video signal parameter adjustments
- 4x4 Full bandwidth sampling
- HDMI compatible I/O with HDCP
- Integral Audio Routing
- Audio de-embed/embed
- Optional redundant power supply
- Interfaces: RS-232/422/485, USB, IP
- Windows & Mac control software
- 5 Year Warranty

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42" & 50" HD grading monitors

Panasonic's BT300 range of professional plasmas are ideal monitors for broadcast centres, grading suites and edit studios.

Known for excellent colour fidelity, their overall image quality is outstanding. The superior screen delivers banding-free pictures and low noise levels while viewing angles are impressively broad.



Special Offer

The TY-FB30DHD3D (worth £3570+VAT) board is currently bundled with the BT300 plasmas at no cost. It works as a single HD-SDI input, a dual link HD-SDI input or a 3D HD-SDI connector for simultaneous, side-by-side or top and bottom stereoscopic 3D.

3D
FULL HD

Offer ends: 22nd
June 2012

The Super Bowl live, with Teradek Bond

At Super Bowl 2012, a new kind of commodity-priced equipment fed screens nationwide, demonstrating how low-cost IT technology has entered the broadcast toolkit. Teradek's new Bond cellular solution was at the heart of the action for the first time. It was used to televise the event by multiple TV networks across the USA and by a dozen media outlets including the New York Post. Transmitting simultaneously over Verizon, AT&T and Sprint networks, Bond transmitted comprehensive live pre- and post-game supplementary coverage, fixed to a variety of ENG and DSLR camera systems.

Bond attaches to a Teradek Cube and is camera-mounted. It uses multiple 3G or 4G mobile dongles from any mobile phone network supplier to transmit encoded content to a receiving station that recompiles the data into a single video stream. Importantly, at events such as Super Bowl where tens of thousands of spectators are hitting the mobile networks hard with their smartphones, Bond can work concurrently with diverse mobile carriers. This versatility means that even from within a stadium, Bond works flawlessly and maintains high enough bit rates for good quality, uninterrupted HD viewing.

"Without Bond, we simply would not have been able to go live at the game," said Rome Neal, Senior Video Producer for the New York Post. "Live sports events present many unique broadcast challenges, and the Bond's compact size and ease of use make it an ideal solution to get our live content directly to our viewers online, even for an event of this magnitude."

As mobile solutions have been proven to perform to this level in the cauldron of the Super Bowl,

broadcasters are now preparing to use such backhauling technology at even larger events such as the London Olympics and the Diamond Jubilee. With low upfront costs and relatively modest data fees, bonded solutions are affordable alternatives to satellite technology and are already a generation ahead of the early backpack cellular systems that hit the market only two years ago.

A New Ball Game

Cellular solutions are used either as a replacement for traditional systems or as a means of cost-effectively extending their range. For example, they can simply transmit from camera to a broadcast centre for live TV transmission using MPEG-TS. Alternatively, they work in tandem with satellite vehicles for on-site production, prior to transmission to the main hub.

The RTMP protocol enables Bond to stream live to the internet from behind a firewall while adaptive internet streaming technology (AIST) constantly adjusts the bitrate of a media stream to suit the bandwidth available. This buffers data on the fly based on varying network conditions ensuring quality of service for online viewers.

In Action

The advantages of these technologies are not simply cost-saving. The Super Bowl at the Lucas Oil Stadium saw news crews roaming throughout the arena, inside and out. Microwave link simply was not viable for hard-to-reach areas; Bond's compact size allowed production teams move all around the stadium with ease. For one news company whose sat truck wasn't working correctly, Bond was used for the entirety of the coverage they provided. For them, working over cellular networks gave them a level of flexibility that established forms of transmission lacks.

Furthermore, cellular solutions allowed broadcasters to bypass issues that plague live production. At Super Bowl, the on-pitch entertainment alone required the planning and management of 110 RF frequencies, all competing for space with coach intercoms, the NBC stage, NFL Films, NFL Network, Westwood One Radio among many others. Sending data over separate networks bypasses this issue entirely and avoids the risk of interference with wireless mics, in-ear monitors and intercom systems that underpin the whole day.

The Pace of Change

The reliance on telecomms infrastructures that were developed for anything other than the transmission of compressed HD signals will terrify many a broadcaster. While the technology



has has been used for hours on end by regional TV operators, ultimate quality still resides with satellite news operations and regular broadcast infrastructures. However, flexibility, versatility and speed (not to mention the considerable cost-savings) side clearly with 3G and 4G bonded engineering and in only a few months since launch, it has already established as a valuable asset in a broadcaster's inventory.



New Cube: charge, connect, record & transmit

At NAB Teradek launched the x55 Cube encoders and decoders. They join an existing range that has revolutionised content transmission direct from camera and production switcher. No bigger than a packet of cigarettes, Cube encodes content in realtime to H.264 at very high quality for instant streaming to monitors, local and remote.

The new devices mark a considerable advance in the range with new features tailored to professional users. They include:

- On-board proxy recording onto microSD cards in real-time. The recorded files can be automatically synced to a proxy server over WiFi or cellular connections. This satisfies film makers' needs for offline rough cut editing and news journalists' requirements to transmit small file sizes to the broadcaster.

- Ideal for location shooters, a built-in rechargeable Li-ion battery giving 2-hours run time. It can be charged either via the new micro USB port or via an AC adapter.

- To liberate the Cube from a laptop or iPad controller, an OLED Screen has been included to give users the ability to review and modify the settings on the fly, such as filenames, frame rates, recording status and connectivity.

- Improved wireless is achieved through the new MIMO access point feature. It also enables wireless camera control for camcorders without WiFi capability built in and ensures improved connectivity from an iPad and tablets.

- Audio monitoring is possible via the new headphone output.

The new models that incorporate these new features will launch in May. The 155 transmitter / 355 receiver is equipped with HD-SDI and wifi. The 255 transmitter / 455 receiver is equipped with HDMI and wifi. All four devices also include ethernet ports for connection over local area networks and standard Cat 5 and Cat 6 cable.

Visit www.holdan.co.uk for details.



LAN, WiFi, 3G and 4G Transmission Devices

Teradek is an IP encoding specialist. Its technology brings the ultimate in IT versatility to broadcast, AV and video professionals.

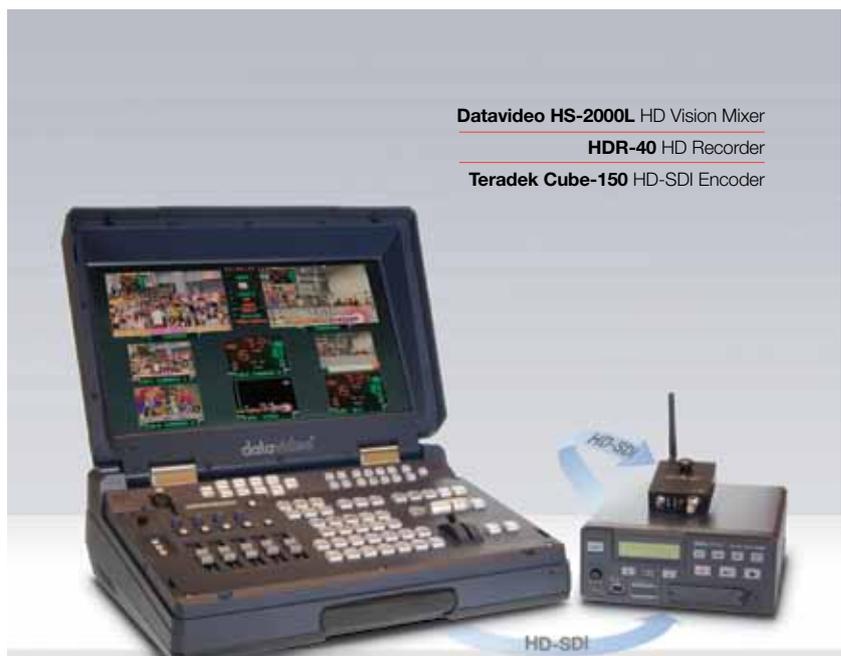
An example is the Bond. Unlike other cellular transmission systems, it sits on the camera, accepts any 3G / 4G dongle and can operate with a mixture of networks simultaneously. This overcomes the problem where a operator's signal is weak in a particular area and avoids tying the owner to long and expensive contracts.

The same is true with Case, the on-set video assist system for directors.

Buyers can select the number of Cube encoders required and weigh up the cost / performance ratio for themselves. As a modular system, Case can be increased in power very simply and the individual elements can even be used separately for specific functions.

Cube itself is the very definition of versatility, with analogue, HDMI and SDI options, as well as the choice of wired or WiFi connectivity.

Teradek also manufactures standalone encoding devices - Citadel, Odyssey and Chimera. Check them out on www.holdan.co.uk



Datavideo HS-2000L HD Vision Mixer
HDR-40 HD Recorder
Teradek Cube-150 HD-SDI Encoder

The HDTV solution for the Internet Age

Shoot - mix - stream - record.
Any time, any place.

Whether you produce TV, corporate training, conference sessions or live events, Holdan's new Internet TV package delivers.

- Create professional, graphic-rich, multi-camera programming from any location
- Record your output in HD for post production, archiving and video on demand
- Encode and stream live over the Net using a low cost pre-configured service

High Definition Package: powerful TV and live streaming over fast networks

Blackmagic Design's Cinema Camera



Blackmagic Design has never done anything by halves. As dramatic and unexpected as the launch of the original Red camera, the Blackmagic Cinema Camera will have no less an impact on the market.

Its specs are impressive - 2.5K recording either uncompressed, Pro-Res or Avid DNxHD. Its versatility - Canon and Zeiss lens compatibility - is simply excellent. Its workflow options - 3G-SDI and Thunderbolt ports as well as removable SSD disks - is up there with the best. But more than anything else, the price is astonishing. At under \$3000, this is simply incredible value for money.

The cost benefits are even greater when you consider that it comes with a full version of DaVinci Resolve 9.0 (worth £645 + vat) and Blackmagic's UltraScope software.

The Cinema Camera's image quality awaits final inspection but if it's as good as its specs suggest, then it should deliver resolution, dynamic range and colour handling that betters most ENG-style and DSLR cameras. It will give other large

sensor cameras stiff competition indeed. Time will tell.

In fact, it's coming soon. Very soon. Keep checking www.holdan.co.uk for the latest availability.

What you get:

- A tough, lightweight camera
- Capture to SSD disks
- Thunderbolt & HD-SDI ports
- Multiple lens options
- Full version of DaVinci Resolve
- 2.5k 12-bit recording in CinemaDNG
- HD recording in DNxHD and Pro-res formats
- 24, 25 and 30P frame rates
- 800 x 480 5" LCD touchscreen with sunshade
- Integrated 90-minute rechargeable battery
- Optional handles for handheld shooting
- Access to some of the finest lenses available

What we think...

The Cinema Camera is clearly a beautifully crafted and intelligently designed system at an unbelievable price. The revolution DSLRs began two years ago will now be complete.

The Cinema Camera will open film production to a whole new creative community and give established directors of photography a true low-cost alternative to DSLRs, a second on-set camera or an always-available affordable option.

For video camera users, the absence of an on-board hi-quality microphone, neutral density filters and variable frame rates will take some adjustment. For many, there will be times that it's well worth the extra effort.

We think the Cinema Camera will be a winner and will evolve into an even more powerful device over the coming months.



Open Arms

If the response of UK resellers is anything to go by, the Cinema Camera will be a huge success.

Pre-orders for the new device have been very encouraging as demand is expected to be high.

The press has also cottoned on quickly to the potential for the system, with many clearing their front pages for images of the camera.

One such was High Definition Magazine, whose headline read "Blackmagic Design's Stunner - Brand new RAW camera from the company that has it all".

Pre-order yours from an authorised reseller.

The Blackmagic Design Cinema Camera is due this summer



Cinema Camera sweeps the awards at NAB 2012

★ Digital Video Magazine: NAB 2012
Best of Show Black Diamond Winner

★ Broadcast Engineering Pick
Hits awards: NAB 2012

★ TV Technology STAR Awards
NAB 2012

★ InBroadcast Awards NAB 2012
InNOVATION Outstanding Merit



New editing hardware from Blackmagic Design

Blackmagic manufactures high resolution video capture and monitoring devices at a remarkable pricepoint. Its two new dedicated edit products are no exception.

Firstly, the UltraStudio Express which is not just another HD-SDI and HDMI device for HD environments. Its Thunderbolt port also enables full resolution real time dual stream 3D capture and playback on fast computer systems.

The Express is highly portable, partly down to the Thunderbolt connector which powers the unit when attached to a computer. It



will be available in May 2012 at a suggested price of £315 + VAT.

Secondly, Blackmagic has introduced a 4 input UltraStudio capture card module for the Universal Videohub. The Interface

features 4 bi-directional Thunderbolt ports and 4 reference inputs on a single card. Now, 4 computers can connect to the hub to capture a video feed directly from the router. Route any Universal Videohub input for capture directly from a Thunderbolt port, or play back from a computer to multiple destinations such as decks, monitors, projectors and any other SDI equipment.

This simplifies cabling and reduces the number of break-out capture boxes required in a studio. The module will be available in the Autumn.

HyperDeck Studio goes Pro

HyperDeck Studio launched at NAB 2011. A year on, the Professional version sees the light of day, with stunning new features, including:

- Full 2K recording support
- HD RGB 4:4:4 support
- 4K playback from a single SSD using Apple ProRes
- Record 4 channels of 3 Gb/s SDI, HDMI and analogue HD video with timecode
- Record audio via standard XLR connectors

- Connect to a computer via a Thunderbolt port
At the same time, Blackmagic announced that the original HyperDeck Studio has added ProRes 422 recording and playback. Software Update 3.0 is now available free of charge for download from www.blackmagic-design.com.



Teranex continues to astonish

Teranex's high-end standards converter and image processors were acquired by Blackmagic last year. In that time the cost of the principal unit has been slashed from its original \$90,000 price point. Now a 2D version version is on its way at £1,275 + vat.

The lower-cost 2D Processor version offers all conversions in 4:2:2 quality in a single channel. The Teranex 3D Processor model features dual processors for 3D and 4:4:4

processing.
A new high-speed Thunderbolt connection is now incorporated for video capture and playback. Alongside the included UltraScope software users can perform waveform monitoring and error logging. Teranex is now among the most powerful editing platforms available.

Both models will be available this summer



Battery-powered heavy duty converters

3G/HD-SDI to HDMI converters and HDMI to 3G/HD-SDI converters are nothing new. Nor are devices that include an SDI loop through.

The two things Blackmagic has added to its new range to make



them stand out are tough build quality (said to be strong enough to withstand being run over by a lorry) and a built-in battery.

The lithium-ion polymer power cell provides more than two hours of charge with an LED indicating the charge state.

Despite these features, the converters are small enough to fit in the palm of the hand.

They will be available for purchase shortly with a list price of £189 + vat.

Visit www.holdan.co.uk to compare a huge range of format and scan converters.

Upgrades, updates and pricing news from Blackmagic Design

Blackmagicdesign

ATEM 2 gains audio mixing features



HyperDeck Studio now supports ProRes



Prices reduced: Heavy Duty Mini Converters



Lower prices on Videohubs: Micro, Smart & Compact



Blackmagic Design Announces DaVinci Resolve 9

New interface plus a new streamlined project import, export and selection workflow, scrubbable media thumbnails to speed up shot selection, production metadata fields... and much more. Check the website for more info.



Sonnet demos fast, low-cost workflows

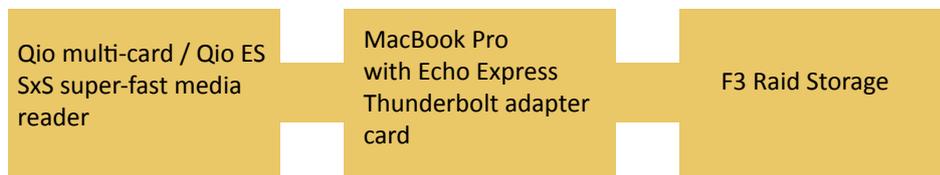
Sonnet Technology's focus at NAB was on solutions. Best known for its adapters, accelerators and storage systems, Sonnet chose to show how its tools could transform off-the-shelf IT equipment into state of the art systems for video professionals. Example workflows included:



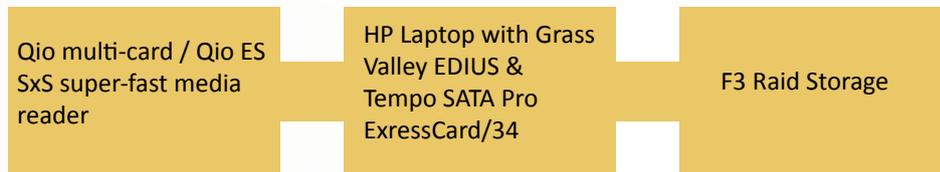
4-Channel TV Playout System



Cinematographer's mobile ingest, data management and playback system



HD Field editing solution



Thunderbolt Adapter passes the speed test

Sonnet's £100 Echo ExpressCard/34 Thunderbolt Adapters adds an ExpressCard/34 slot to Apple Mac computers.

Not only does this enable new systems to work with eSATA and Firewire devices, but it's also the fastest and least expensive way to add a SxS™ memory card reader.

This is great news for Sony XDCAM EX users such as Alister Chapman, the UK-based cameraman that recently wrote a report on using the Sonnet appliance.

His conclusion? "So, as an SxS card reader the Sonnet EchoExpress works really well offering transfers around 3 times faster than USB which is a big time saver. Imagine you have been shooting all day and have 5 hours of footage. With USB it would take you at least an hour to transfer your data, with the EchoExpress



just 20 minutes. I give the Sonnet EchoExpress a big thumbs up."

A new version of EchoExpress Thunderbolt Adapter featuring PCIe 2.0 will be available in June at £115.



Apace untangles the media haystack

Disorderly growth

The arrival of desktop content creation and file-based acquisition has revolutionised the TV and video industry. Programmes are now made more cost-effectively, quickly, and collaboratively than ever.

To cope with the huge increase in the number and size of files, systems have expanded to meet the greater storage requirements. For virtually every organisation a situation now exists where there is an incredible array of desktop, rack-mounted, tape-based storage, housing many terabytes of uncatalogued data. The implications for data security, data access and unnecessary data duplication are obvious.

This all too familiar scenario wastes time through endless system searches, wastes

Dynamic Media Asset Management

Apace's toolset starts at the ingest level where incoming files are correctly catalogued and optimised for archiving and retrieval.

Apace's, **postMAM pro 3.0** management tools then helps users access the content by rapidly searching a powerful database of assets to locate, view and use the files they need. postMAM enables users to search by textual descriptions, rich metadata and visual thumbnails to track down the required data fast.

Interoperability with third-party transcoding tools such as Rhozet ProMedia Carbon means that workgroups can quickly - even automatically - re-format and re-purpose media according to their needs for archiving, post production and distribution.

Introducing Apace Systems

Apace Systems is a leading workflow and media storage developer.

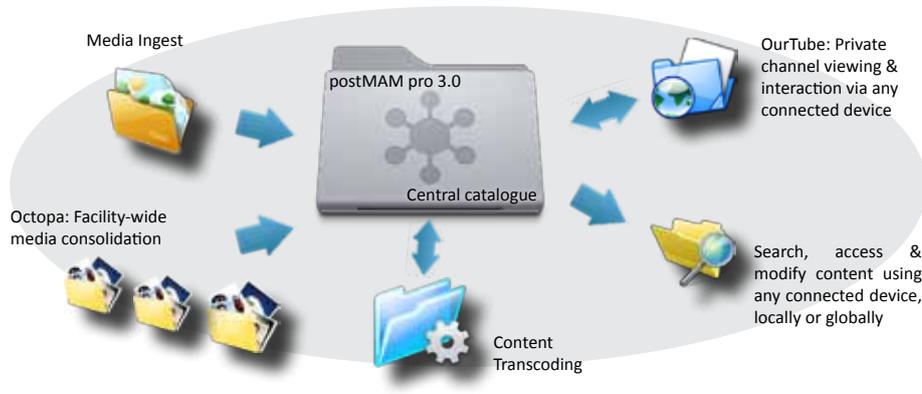
Customers include such prestigious organisations as CBS, NBC, National Geographic and Washington State University.

Apace's systems and software are modular enabling customer to select the elements they require and to enhance their workflow over time. Each tool is designed to integrate with your existing infrastructure.

Installed exclusively by experienced professionals, Apace Systems are fully supported, business-class solutions.

Call Holdan, the UK distributor for more information on:
+44 1457 851 000

Intelligent Media Workflows: Apace Systems



resources with inefficient storage and creates high levels of frustration among editors and programme makers.

Bringing Order

Apace has the solution to this media haystack. Its **Octopa** software reaches into every storage system resident on your network and every drive connected to every workstation. It searches, monitors and tracks media assets throughout your organisation. Octopa gives you an instant centralized view of all your media as well as the ability to consolidate, back up and restore all your files.

NEW The private media cloud

As the tools run on Apace's network storage systems, they can be accessed by any web browser, either locally or over the Internet.

Announced at NAB 2012, the latest version of Apace's interactive **OurTube** system allows organisations to have a private YouTube with total over data and access rights. Built-in time-code level commenting facilitates use of video as a communication tool over any IP network while online quick edits are also enabled by Apace's toolset.

Apace Systems delivers

- Instant centralised view of all your media across your entire network
- Intelligent ingest of new files
- Complete cataloguing of media for fast retrieval
- Ability to transcode all media for every need
- Local and remote access to files
- Collaborative local and remote production
- Intuitive web-based user and administration tools

The world's 1st 27-inch all-in-one workstation

For those that like their technology to ooze style: the Hewlett Packard Z1...



New 16 core workstation

Ultra-powerful visuals and high performance computing

The whole-system engineering of the new HP Z820 allows the processor, memory, graphics, OS and applications to work together seamlessly to deliver maximum performance. Need power and system stability? Look no further.



HS-600 & SE-600

Low-cost analogue production switchers, such as the Datavideo 600 range are still highly popular in the streaming, education, worship and corporate markets. Their composite video connectors make them compatible with both new and legacy cameras while a built-in DVI port enables the insertion of computer graphics, logos and titles.

The 600 comes in two flavours - as a mobile studio complete with carry case and multi-screen monitor, and as a control panel. Both incorporate audio and video mixing duties, support 6 cameras and have options for DV input.

It's a rock-solid, highly flexible SD switcher.



Datavideo SE-2800 is a multi-in wonder

While broadcasters strictly adhere to shortlists of approved cameras, production companies, AV units and education departments often blend HD, SD, digital and analogue cameras.

Datavideo understands this reality and with the SE-2800 has a production switcher that is ready for every eventuality. Its connectors can be configured to accept up-to 12 SD or HD-SDI cameras or 6 composite video devices as well as 3 HDMI

camcorders.

Together with audio mixing, tally control, clock, logo insertion, picture in picture, PC remote control and HDMI monitoring, this is a fully featured device.

The SE-2800 supports 4:2:2 10-bit for full broadcast quality output. It is suitable for OB and studio use.



Full details are available at www.holdan.co.uk



EDIUS hits 6.5 and unleashes more pro features

What's new in EDIUS 6.5?

EDIUS 6.5 includes numerous new, ground-breaking features, including:

- 3D stereoscopic editing
- AVCHD 2.0 support
- RED format native support
- Loudness meter
- 10-bit editing support
- 2K/4K resolution support
- Image stabilizer
- Flash exporter
- High quality scaling

EDIUS 6.5 supports the following Grass Valley hardware:

- STORM 3G/STORM 3G Elite
- HDSTORM /STORM Mobile
- HDSPARK /HDSPARK Pro
- EDIUS NX/SP

New to EDIUS?

In a nutshell, EDIUS is a high speed realtime editing tool that is supported by Grass Valley to deliver multiple i/o, accelerated performance and professional video monitoring.

Capable of working with numerous professional and semi-professional



formats, with no need for transcoding into an intermediate codec, and powerful enough to mix media with multiple frame rates, aspect ratios and resolutions on the timeline, it's a great time saver.

EDIUS is favoured by fast turnaround production companies and freelancers because of its intuitive interface and no nonsense broadcast-ready cutting tools. Whether working with single camera shoots or in 16 camera productions, EDIUS puts editing essentials at the user's fingertips.

The software gives editors total control over output: Blu-ray video, streaming media and broadcast-ready files can be fine tuned to users' precise requirements.



EDIUS 6.5 will be available in June 2012

Understanding 8-bit and 10-bit video formats

What is 8-bit?

In simple terms, 8-bit images allow each colour (Red, Green and Blue) to be represented as values from 0 - 255. With 10-bit, colour values range from 0 - 1023. As a result, 10-bit images are less prone to colour banding: rather than subtle colour changes looking stepped, they tend to appear more gradual, and more natural.



When does this matter?

Well lit 8-bit video can look stunning and is acceptable to very many HDTV channels. However, in certain circumstances, 10-bit video is often preferred, such as when:

- Significant grading or re-lighting work is likely to take place in post

-Chroma key is involved

-The final production is likely to be shown on large-scale cinema screens.

There is a price to be paid for 10-bit production. Camera recorders are more expensive, bitrates and storage requirements are 30% higher and in post production faster processors are needed.

Recording Formats

Common 8-bit formats include DV, HDV and AVCHD while manufacturer's broadcast codecs (such as AVC-Intra, MPEG-2, XDCAM etc) often have the versatility to select colour space, bit rates, and much more. These codecs are typically supported by VTRs, broadcast ingest systems and TV station infrastructures.

Editing Formats

Cameras such as ARRI's Alexa and Blackmagic's Cinema Camera also can record to so-called intermediate codecs such as Pro-Res and DNxHD. Like broadcast recording formats, these are flexible 8 or 10-bit formats which are high-quality, edit-ready but inappropriate for delivery.

Grass Valley's HQX

HQX, supported by EDIUS 6.5, is Grass Valley's 10-bit intermediate codec. Compared with other intermediate codecs, it has greater compression ratios (from 25:1 to 2:1) and a higher maximum bitrate of 600Mb/s. Plus it has superior multi-generational performance, rate and resolution flexibility and built-in alpha channel support. It is a great choice for creative artists seeking the best possible image quality.

Datavideo workflows power webstreaming

While the UK's attempts to launch local TV continue to stutter, niche webTV channels abound on services such as Livestream.com and Ustream.com. Similarly, colleges, schools, houses of worship and corporates are active streamers, either developing their own channels or using the web to communicate events to a wider audience.

Connecting the output of a single camera to a streaming service requires no more kit than an encoder. True, engaging television,

however requires something a little more sophisticated.

Holdan's multicam, graphics-rich streaming packages are an inexpensive way to produce great audio and video, transmit effortlessly to an affordable service such as Livestream.com and get on the air fast.

Programme recording is also supplied with users able to select from a number of codecs and bitrates.

Both HD and SD versions are on

offer but in both scenarios, the emphasis is on portability, ease of use and cost control.



Ask Holdan for more details.

Low-cost 4.3" viewfinder

Datavideo's new TLM-430 4.3" 480 x 272 monitor can be used either as a standard monitor or as a viewfinder.

It has 4:3 and 16:9 selectable aspect ratio and bi-colour (red and green) tally LED indicators. It connects via 2 composite inputs.

8/16 channel intercom & tally

The ITC-200 is the latest instalment of Datavideo's simple, powerful intercom & tally systems.

An 8-channel model, the ITC-200 is expandable using the ITC-200E to allow 16 channels of communication between crew members.

The ITC-200 includes a base station

with mic, 8 beltpacks, 8 headsets, 8 tally lights, and all the wiring to connect them together.



ITC-200 offers 8 channels of communication but is expandable to 16 using the new ITC-200E.

Anyprompting: tablet prompting, phone prompting

Smartphones, powered by Apple's iOS or Google's Android are incredibly capable computers. Datavideo's TP-100 harnesses these devices to create a versatile and portable teleprompter, using a free app available online.

It's quick to assemble, tough and reliable. Compatible with most 3.5"+ screen phones, it comes complete with a remote for controlling script scrolling to ensure professional results.

The TP-300 is the tablet-version in Datavideo's range. Again, it is ready to receive any manufacturer's device from a 7" to a 10" model.

The prompter can either be

mounted below the camera or (as shown) at lens height, depending on the user's preference.

The TP-300 shares all the features of the TP-100 including tool-free assembly. However, the larger screen size of the tablet can give users more font size flexibility and improved visibility.



Datavideo HS-2000L HD Vision Mixer

HDR-40 HD Recorder

Teradek Cube-150 HD-SDI Encoder



The HDTV solution for the Internet Age

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Any time, any place.**

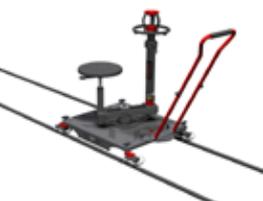
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 <p>HDSLR Viewing Loupe 3.0</p>	 <p>Compact Follow Focus System</p>	 <p>Universal Follow Focus Kit</p>
 <p>2 Grip Handheld DSLR Support</p>	 <p>DV / DSLR Shoulder Mount</p>	 <p>Matte Box Kit inc Filter Holder</p>
 <p>2 Grip Handheld DSLR Support</p>	 <p>Zodiac DSLR Offset Rig</p>	 <p>Zodiac DSLR Offset Rig</p>

Dynamic support

Loupe & focus

Matte boxes

DSLR rigs

Dynamic camera supports.

Full details online today.