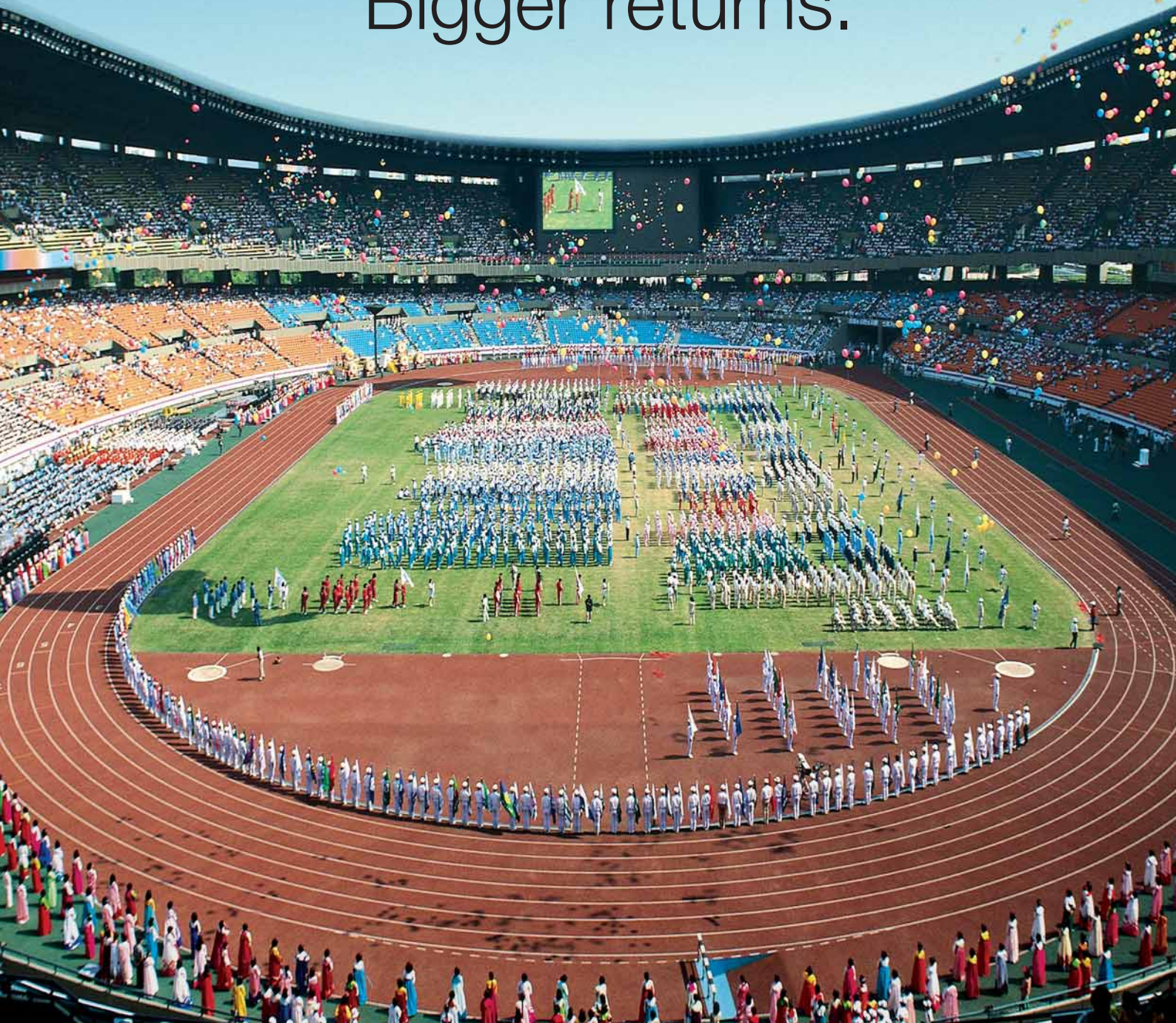


SONY

Better pictures.
Bigger returns.



High Definition for
Multi-Camera Production

www.sonybiz.net/live



Changing the face of television.

Sony High Definition for studio and outside broadcast production

High Definition (HD) is changing the face of television. From sports, documentaries and quality drama to music and live events, today's viewers are already appreciating the breathtaking clarity and emotional impact that only HD pictures can deliver.

European consumers are rushing to embrace a new generation of home entertainment experiences. Teamed with multi-channel surround sound speaker systems, widescreen plasma and LCD displays create a cinematic experience in the living room that's more compelling and immersive than ever before. As consumer expectations continue to rise, only HD can meet long-term demand for bigger, better, clearer television pictures.

The momentum behind consumer demand for High Definition is unstoppable. By 2009, it's predicted that 50 million homes worldwide will be watching some HD broadcast content. (source: IMS Research). And it's not just consumers who are thirsty for a richer viewing experience. From leading film directors to global advertisers, anyone who's passionate about better-looking pictures is moving to High Definition.

It's therefore no surprise that broadcasters worldwide are putting High Definition at the top of their agendas. Packed with five times more information than Standard Definition (SD) images, HD pictures ensure that your content commands a price premium in global markets from day one. HD images look great on the latest generation of LCD and plasma screens – and still outclass SD-originated material even when they are down-converted for viewing as standard PAL transmissions. As well as enhancing the commercial appeal and shelf-life of any production, High Definition content can be readily re-purposed to meet virtually any distribution requirements... today and tomorrow.



Broadening your business options

Investing in High Definition today is the surest way to future-proof all your content and maximise its value, now and in the future. Consumers can enjoy High Definition pictures at home via a growing choice of delivery options. Complementing digital transmissions via cable and satellite, the prevalence of broadband connectivity in European homes will soon allow viewers to watch 1080-line HD pictures on their PC. Blu-ray Discs will provide convenient access to a growing library of recorded content including movies, music and live events. Sony has also confirmed that the next generation of the PlayStation gaming console will include support for HD-quality video playback.

■ Smooth integration

Providing a more exciting, immersive entertainment experience, the sheer viewer appeal of High Definition is compelling. Thanks to Sony, it's also a highly cost effective choice for broadcasters with an eye on new business opportunities today and tomorrow.

Sony offers a complete High Definition portfolio that integrates smoothly alongside your existing facilities, allowing you to start generating a return on your investment faster and with reduced risks. Just as importantly, it's easy to introduce Sony High Definition into your production facilities with minimal disruption to existing workflows. With minimal re-skilling required to adapt your production and engineering teams to High Definition, you can avoid additional training costs and start delivering results immediately.

■ A complete product range

There's a complete Sony range of High Definition production components, including cameras and accessories, switchers, monitors and VTRs. These have been designed to offer a smooth, cost effective transition from your current Standard Definition infrastructure.

The latest generation Sony products are no bigger or bulkier than their SD counterparts – so there's no need to worry about space limitations, higher transportation charges or increased air conditioning requirements when they're installed in a studio or OB truck.

Sony High Definition cameras share common control systems, base stations and other accessories with Standard Definition models, making it cost efficient and straightforward to integrate HD cameras alongside SD models.

Sony HD switchers are highly scalable and configurable and are supplied to suit your exact programme requirements. By utilising the same control components as the current SD system, an existing SD system can be simply upgraded to HD operation.



A global phenomenon

Complementing the first wave of HD transmissions in Asia Pacific, more than 1,000 US television stations are now transmitting High Definition pictures. With major European broadcasters already piloting HD transmissions, dozens more are lined up to launch services commercially.

Better looking pictures... plus greater production flexibility

Standard Video	American DTV	HD / CIF
720 x 576	1280 x 720	1920 x 1080

Carrying five times more information than a Standard Definition image, 1920 x 1080 pixel High Definition pictures adhere to the ITU-ratified Common Image Format (CIF) for programme exchange. 1080i pictures captured with Sony High Definition cameras and camcorders can be readily down-converted and de-interlaced to meet 720P transmission and distribution requirements – offering broadcasters the greatest operational flexibility without compromising picture quality.

Multi-format capable for greater flexibility

Sony High Definition switchers, VTRs and monitors are capable of operating in these current and proposed industry formats:

- 1080i/60, 59.94, 50
- 1080P/30, 29.97, 25, 24, 23.976
- 720P/59.94, 50
- 480i/59.94
- 576i/50

The **ultimate** solution for HD image capture.

The HDC-1500 family cameras combine cutting-edge CCD and Digital Processing technology with superb operator ergonomics, powerful control functionality and a flexible range of system peripherals to provide a perfect solution for all studio and OB production requirements.

With multiple format capability, stunning picture performance and unrivalled system flexibility, the HDC-1500 portable and HDC-1000 full size cameras represent a comprehensive and cost effective path into studio, OB truck and field-based HD production.



HDC-X310

Weighing just 1.3 kg (camera head only), this multi-purpose camera delivers crisp, clear pictures with true 1080-line resolution in interlaced or progressive modes. Its compact dimensions and auto-focus lens make it an ideal choice for a range of point of view applications, including mounting on robotic platforms or in a helicopter. It's also the perfect low-cost solution for providing wide-area coverage at large-scale live events where a large number of cameras are required but resources are limited. Linked over a distance of up to 1000m via a single optical connection, the HFU-X310 signal interface unit adds a comprehensive range of output format options including HD-SDI, computer XGA and, soon to be available, i.LINK (HDV).



HDC-1500

Setting new standards of imaging performance and operational versatility, the HDC-1500 is a no-compromise portable camera featuring improved 14-bit A/D conversion for peerless picture quality with all popular interlaced and progressive formats supported. Three 2/3-type 2.2 megapixel Power HAD EX CCD sensors can also acquire images at 1080/50P resolution in 'super-sampled' mode, outputting 720P pictures with lower aliasing and higher subjective quality than native 720P cameras to offer a future-proofed solution. Full bandwidth digital signals can be transmitted over a distance of up to 10km to an OB truck or studio via a single optical connection with no degradation or signal loss. A triax converter system allows transmission of HD camera signals over existing cabling infrastructures. Extra flexibility is afforded by a wide range of colour LCD and black & white viewfinder options. An Ethernet port allows control of Camera Control Units (CCUs) over standard TCP/IP networks.

Switch up to improved quality.

Taking a step up to High Definition with the latest generation of Sony multi-format and HD-ready production switchers doesn't have to mean throwing out your current working practices. Sporting a control surface that's immediately familiar to users of other Sony switchers, the MVS-8000A is the most compact, powerful and cost effective HD/SD production switcher in the world.

Multi-format production is equally attractive to smaller broadcasters and space-limited OB facilities with products like the MFS-2000 production switcher. This compact unit is not short on features with a 6-channel frame memory, powerful 2-channel DME unit and colour correction all available as options. Supplied initially for SD operation, all units can be upgraded to High Definition operation with a simple software addition, thus future-proofing your investment.

▶ MVS-8000A

The MVS-8000A production switcher is configurable up to 80 inputs, 56 outputs and 4 ME banks to accommodate the most ambitious multi-camera projects. With the optional 4-channel digital effects unit and high capacity frame store, the system can cope with the most demanding of production requirements.



Customer Spotlight



AERIAL CAMERA SYSTEMS

From international sports and drama to commercials and feature films, Aerial Camera Systems' distinctive point of view shots are much sought after by broadcasters including the BBC, Sky and Channel 4. The specialist camera company currently deploys a Sony HDC-950 camera in 'split head' configuration in a gyro-stabilised helicopter mount. The HDC-950 was used to capture breathtaking aerial shots on HDCAM SR to accompany the BBC's 2005 general election coverage. In July this year, ACS used the airborne HDC-950 mounted in its Gyron stabilised mount during the 2005 FIFA Confederations Cup in Germany. ACS has also invested in six HDC-X300 cameras that will be deployed to provide out-of-the-ordinary camera angles at sporting and other live events across Europe.

"We did a lot of research into different camera suppliers while making our own plans to introduce High Definition", says Matt Coyde, Aerial Camera Systems' Sales and Marketing Director. "We've had an excellent relationship with Sony for many years - they were a natural choice when it came to selecting HD cameras that can help us capture even more compelling images from the air."

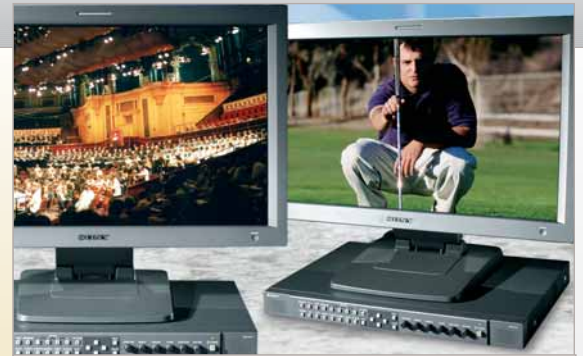


ROYAL OPERA HOUSE – COVENT GARDEN

Sony has created Europe's first dedicated High Definition production system at an entertainment venue for the Royal Opera House in London's Covent Garden. Four Sony High Definition camera heads on robotic pan/tilt/zoom mountings in the main auditorium can be controlled remotely, giving audiences an unimpaired view of the action on stage. Full-bandwidth video signals are routed via hybrid fibre optic connections to a production suite beneath the main stage accommodating a Sony MVS-8000A production switcher plus HDCAM VTRs and LMD Series professional LCD monitors. The Royal Opera House now has the facility to record performances for transmission, archive and distribution in High Definition and in Standard Definition on DVD. Crowds in nearby Covent Garden Piazza can also enjoy relayed images on a large LED screen. The project has also involved every aspect of Sony Professional Services – ranging from consultation, design and installation to staff training and round-the-clock support. The scalable system features 32 camera access points dotted around the building – giving the Royal Opera House the ability to accommodate signals from up to twelve High Definition cameras simultaneously. "We've always been at the forefront of innovation, as has Sony, and we recognise the power of working together", says ROH Director of Operations, John Seekings.

A clearer picture.

Sony offers a complete range of HD/SD compatible professional LCD monitors. Eliminating the need for separate monitors to view High and Standard Definition pictures, space-saving LCD monitors keep costs down while reducing power consumption and air conditioning requirements within the confines of a production suite or OB truck. Sony LMD Series Professional LCD monitors offer lower weight, greater reliability and simpler maintenance requirements than CRT designs. High contrast, minimal geometric distortion, fast response and a wide viewing angle are complemented by better colour matching with new ChromaTru technology. Designed specifically for the most demanding professional applications, LMD Series models offer a generous choice of inputs. More flexible mounting and future-proofed installation options are afforded by a two-piece 'split' design that separates the screen itself from the main processor unit.



LMD Series Professional LCD Monitors

Easy to set up, use and maintain, Sony LCD monitors afford the highest quality image reproduction, stability and performance to complement today's High Definition picture sources. They are available in various sizes from 9-inch to 32-inch allowing multi-format sources to be displayed in HD or SD. They're also a 'greener' solution that's gentler on the environment than CRT screens.

Customer Spotlight



TOPVISION

German television services provider, TopVision, is equipping its newest OB vehicle with sixteen Sony HDC-1000 and HDC-1500 multi-format cameras, complemented by HDCAM and XDCAM. In the next step TopVision plans to add further HD equipment from Sony, such as the next generation of Sony HD Super Motion camera. TopVision boasts a highly successful track record in providing OB facilities at many international sporting events. The Berlin-based company also used more than 60 cameras and the MVS-8000A SD/HD compatible switcher for coverage of the 2005 Nordic Skiing Championships in Oberstdorf. As Managing Director Eduard Palasan confirms, TopVision's investment in Sony High Definition is opening up broader commercial opportunities including music and theatrical events: "We're increasingly being asked to produce cultural events to the highest possible quality standard, and can see huge potential for HD in this area."



TELERECORD

Florence-based television services specialist, Telerecord, has recently upgraded facilities on board its flagship '18' OB vehicle to handle a packed schedule of high-profile cultural and sporting bookings. The refurbishment was project-managed in just over a month by Sony Professional Services. Crucially, upgrading to HD allowed Telerecord to retain significant parts of its SD inventory. "A great advantage is that we have been able to re-use our existing camera control systems without the need for any significant modifications to the vehicle", notes Telerecord Founder and President Giovanni Bertini. The expanding trailer now features twelve Sony HDC Series cameras linked to a 51-input MVS-8000A multi-format switcher, with signals being recorded onto HDW Series HDCAM VTRs.

Make the next move.

Broadcasters are discovering that High Definition means much more than a step up to better-looking pictures. It's a fundamental driver for increased competitiveness in global markets and exciting new business opportunities.

We'll be pleased to help you plan your own HD strategy at a pace that suits your needs. We'll help examine your overall business objectives and assess the benefits that Sony High Definition can offer now and in the future.

With Sony as your partner, the question is no longer "do I need to migrate to High Definition?" – it's "when do I start?"



NRK

Norwegian state broadcaster, NRK, has selected Sony to design, equip and project-manage construction of a dedicated 16.5 metre multi-format truck capable of 16:9 and 4:3 working with 5.1 multi-channel sound. OB19 will house an MVS-8000A multi-format HD switcher, two 2 x SRW-5000 HDCAM SR VTRs and a monitor wall featuring Sony LMD Series flat panel monitors as well as reference-standard BVM-A series CRT monitors. Fifteen HDC-1500 cameras are complemented by HDLA-1500 Large Lens Adapters. Acting as prime contractor, Sony has afforded NRK the additional reassurance of a single customer interface at every phase of this substantial project. Delivery is anticipated early in 2006 to provide coverage of the Turin games. "This represents a big step forward", says Odd Johansen, Section Leader for Studio OB at NRK. "Our investment will help ensure that NRK's multi-camera productions maintain top-flight quality for many years to come".

Creative, flexible financing options

While industry migration to High Definition gains pace, the financial models for investment and operation are changing too. Sony Financial Services offers flexible, innovative solutions to help broadcasters lower their up-front investment costs while offering a clearly-defined path to accommodate the future demands of a rapidly changing environment.

There's a range of affordable, predictable options to choose from – including simple leasing and rental plans as well as packaged solutions spanning hardware and services from Sony as well as other providers. Our expert consultants can also fine-tune financial plans to fit in with the realities of your business, with options like reduced payments over the first 24 months of a 5-year agreement to ease cashflow while you start generating new operating revenues. Extras like technology refresh options make Sony High Definition more affordable and accessible, ensuring that your live production systems are operating at optimum efficiency... today and tomorrow.

With Sony as your partner, the question is no longer **"do I need to migrate to High Definition?"** – it's **"when do I start?"**



Working with you, working for you.

A world of Professional Services from Sony

Recognising that every company and every challenge is unique, Sony offers a comprehensive range of professional services to help you maximise the return on your investment in High Definition. From consulting, planning and project financing to implementation, training, servicing, maintenance and support, you're free to choose exactly what's right to suit your operational and strategic requirement – whenever and wherever you need it.

Sony Professional Services

From complete studio facilities to OB vehicles – bespoke design, installation and project management of High Definition solutions, drawing on more than 25 years of systems integration experience.

Sony Training Services

A range of off-the-shelf or customised training services from basic operation through to high-level technical maintenance.

Sony Financial Services

Innovative, flexible finance solutions to meet budgetary and operational requirements – making the benefits of High Definition even more accessible for your business.

Sony Support Services

Fully integrated and customised support for your Sony HD products and systems throughout their operational life, combining proactive and reactive technical services.

Please note: Not all services are available in all countries. Visit www.sonybiz.net or contact your local Sony office for more information.



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