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CINEMA TECHNOLOGY – NEW MAGAZINE – DETAILS PAGE 5

TiVo – Seven's Gateway to the Home

By Phil Sandberg

SEVEN'S TIVOHD personal video recorder launch marks a new era in Australian broadcasting.

I mean this not perhaps in the way that the Seven Network and TiVo promotional campaigns would have it, but that what it does is move control of the content delivery chain back toward its historical controller – the Free-to-Air broadcaster.

It's no great revelation that, in the traditional analogue world, Free-to-Air television networks had a 'default' control over the delivery chain to the viewer. They didn't own or manufacture the receiving devices – there was the 'certainty' that underlying technology would not change – but they had control over every link in the delivery chain up to and including the transmitter. Thus, they were, more or less, masters of their own destinies.

The 1990s, for Australia at least, saw the first shifts in this paradigm with the launch of subscription television, the rise of the Internet and the spread of mobile telecommunications resulting in alternative delivery chains for information and entertainment.

Following this shift has been the pervasive idea that not only is content king, but that broadcasters are actually content providers and should stick to that area of expertise while allowing specialists in other areas of the chain to free the broadcasters up from activities that are not their 'core competency'.

Joining more traditional areas of 'outsourcing' – drama and outside broadcast - this has seen a consolidation, over the last decade, of a service provider sector offering everything from outsourced play-out, distribution, transmission, even sales. Various arms of Australia's own Macquarie Bank, for example, have made forays into these areas with varying degrees of success.

While all this may appeal to shareholders and CFOs, it ignores broadcast's traditional infrastructure function, dilutes the pool of engineering expertise and reduces the focus of a broadcast network's operations to a 'brand' not unlike one of the many 'brands' or channels on subscription platforms such as Foxtel or Austar.

Competing delivery technologies and elastic Government policy notwithstanding, it is safe to say the Free-to-Air transition to digital has not run like the proverbial well-oiled machine.

The recent release of research by the Australian Communications and Media Authority (ACMA) has only just over two out of five Australian households – 42 per cent – are watching digital television over the airwaves. The research also suggests that even when viewers of digital subscription television services are combined with those watching over the airwaves, only just over half of households – 54 per cent – are receiving digital free-to-air television services. Close to a quarter (24 per cent) of households remain not interested in adopting because they are not interested in TV, see no compelling need to change or are put off by cost.

It has been seven years since the introduction DVB-T services in 2001 and there remains five years until the proposed 2013 switch off of analogue TV, yet only 67 percent of respondents in the research were aware of this fact. In addition, the research found that digital capable TV sets only account for a quarter (25.7 per cent) of overall stock of televisions.

Compare this with subscription television. Yes, take-up is only around 30 percent of households. Yes, Foxtel took a decade or so to turn an operating profit. But, Foxtel and Austar have control of their respective content delivery chains – up to and including the viewing platform. This level of control provides a feedback loop for their businesses and enables them to devise a 'product roadmap' that includes both the platform and the content – and for anything above and beyond simply transmitting linear programming, the platform and the content are inextricably linked.

Which brings us back to TiVo. At the product's launch, Seven boss David Leckie made much of the statistic that Free-to-Air channels made up the bulk of viewing time by subscription TV viewers. Big deal. They are still on the subscription platform. They are still part of Foxtel's and Austar's delivery chain – subscription owns the gateway to the home.

With its range of functions (see page 5), TiVoHD has the potential to turn Seven into something of a hybrid – more than a Free-to-Air broadcaster, not entirely a walled-garden, subscription business. This really would mean a new era in broadcasting and somewhat ease the pain of previous forays such as C7. It will also provide the network with a more certain 'product roadmap' - but rather than slapping its logo on the box and letting retailers do all the work, it must take active control of this last link in the delivery chain, otherwise it will just be another PVR.

Thanks again for reading
Regards
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50TH AWARDS CAPS GOLDEN WEEK FOR ACS

Dean Semler presents Ben Nott with the 2008 Milli Award at the 50th Anniversary Annual Awards. Pic – Phil Sandberg.

A well-deserved Milli Award, the most coveted gong amongst Australian cinematographers, was been placed in the deserving hands of Ben Nott ASC, for his work on the Drama Series The Company for producers Ridley & Tony Scott.

Ben's win at the Australian Cinematographers Society's 50th Anniversary Annual Awards at Circular Quay in Sydney, capped off a successful week of industry panels, workshops, exhibition and master classes for the ACS under the theme - Future of the Image.

Drawing over 50 presenters and around 1000 attendees over 4 days, Future of the Image saw legend Dean Semler AM ACS ASC screen and discuss his work on Apocalypto, Don McAlpine ACS ASC present a highly entertaining retrospective and Andrew Lesnie ACS ASC explore coverage in his jam-packed Workshop.

David Gribble ACS, Peter James ACS, Geoffrey Simpson ACS and Scott Hicks also joined British cinematographers Geoff Boyle FBKS and Nigel Walters BSC, and American Society of Cinematographers president Daryn Okada ASC on sessions ranging from 3D and digital production to animation and digital workflow in post production.

Visit www.cinematographer.org.au

QUANTEL'S NEW DIMENSION

Shady characters. [L-R] Quantel's Norman Rouse, Quantel Australia MD Julien James and CEO Ray Cross at the company's 3D Stereoscopic Seminar in Sydney. One of the four systems jaunting around the globe, the Pablo-based 3D post system used during the seminar highlighted the growing catalogue of 3D content with a brand new show-reel from leading LA post houses including Fotokem. The Stereoscopic Pablo system used at the Sydney seminar had already been to Los Angeles and Mexico, and was on its way to Japan further highlighting the interest in the 3D. *Visit www.quantel.com*

MONKEYS & MAGIC WITH AVID'S NEW THINKING

The VideoPro crew [L to R] Dave Thompson, Ivan Poznik, Wayne Newton & Dan Miall (Avid).

Primates and prestidigitation were the order of day during the recent Australian leg of Avid's New Thinking Tour.

Promoting its new personnel line-up of Dan Miall - Professional Products Sales Manager ANZ, Anna Lockwood – Head of Training and Consultancy, Pip Warren – Professional Services Consultant, Viviana Cavuoto – Director of Marketing AP, Patrick Greene – Sales & Operations Director, Brent Heber – Digidesign Professional Products Manager, and Kieran Foster VP Asia-Pacific, the company also showcased it latest solutions releases.

These included a software-only version of Media Composer, Nitris DX and Mojo DX hardware, the Timecode RT tool for real time burn in of metadata for dailies, subtitle captioning tool using EBUN19 caption files, and the Metafile DI offline tool for DPX files. Avid has re-architected its Nitris system to make use of not only the processing power of the external hardware, but workstation CPU and Graphics Processing Unit at the same time for 10Gb/s throughput.

Matt Holmes, VFX Editor, Weta Digital.

Waving the flag for Avid was Matt Holmes, VFX Editor with Weta Digital whose computing grunt has grown to include 15,000 processors, 300Tb of online storage and "too much email". Matt's department includes two Media Composer Adrenalines, four software-only Media Composers all connected to 21Tb of storage.

Prior to showing before and after shots of VFX work from Peter Jackson's King Kong, Matt said, "Avid is the platform of choice. Every project Weta has worked on, except one, has been edited on Avids."

With a new showroom, catalogue and national focus under its belt, VideoPro's Broadcast & Production division added a touch of magic to Avid's 'New Thinking' Brisbane leg.

Held in the viewing theatre at Cutting Edge's Brisbane HQ, the event comprised two Avid sessions with well known magician David Lord mc'ing the event and conjuring up magical segues between illusion and the reality of Avid and VideoPro's product launch and marketing strategy.

Dan Miall from Avid delivered the formal presentation, supported by VideoPro's Dave Thompson, who heads up Avid system sales and training.

Michael Burton, a director at Cutting Edge Post and ongoing supporter of Avid and VideoPro, presented attendees with an insight into the success of their core business model of reality, OB & TVC production.

For a copy of the VideoPro catalogue email Ivan Poznik at i.poznik@videopro.com.au

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da Vinci Appoints Media Village

da Vinci Systems has announced Media Village as its distributor for South East Asia. According to Peter Chamberlain, da Vinci Asia Pacific regional sales manager, "We are very pleased to partner with the Media Village and to help our customers update to the market leading Resolve nonlinear grading system." Media Village has expanded its portfolio to include the Lasergraphics 'Director' scanner, the new Mogul from Imagineer and the new BrightClip from Bright Systems.
Visit www.mediav.com.sg

>>>

Hamlet for Gencom

UK T&M solutions provider Hamlet has appointed Gencom as its distributor in the South East Asia region. Hamlet has been represented by Gencom in New Zealand for over 10 years. "Gencom was a natural choice for us in the region", says Steve Nunney, Managing Director of Hamlet. "We have worked with them for many years in other markets and with their extensive South East Asia coverage they are able to easily deliver an effective result. Gencom's strategic positioning as South East Asian equipment distributor and system integrator, with offices both in Singapore and Bangkok, means that the region is well covered for both sales and engineering".
Visit www.gencom.com

>>>

Magna Powers Up with Blueshape

Magna Systems and Engineering has signed a reseller distribution deal with Blueshape the Italian manufacturer of professional Li-Ion and Li-Polymer batteries, chargers, and mounting accessories. Blueshape batteries are equipped with the V-mount standard used in most commercial broadcast cameras and their casing is made of an impact resistant ABS and polycarbonate mix. Blueshape batteries have a capacity per volume performance of 140 Wh in smaller versions and 210Wh in larger batteries.
Visit www.magnasys.tv

Temasek Polytechnic's TV studio.

MAGNA SUPPLIES TEMASEK POLYTECHNIC WITH CHYRON

BroadcastAsia2008 - Magna Systems and Engineering has released details of the tender it won to supply and install Temasek Polytechnic in Singapore with seven Chyron Graphic workstations including the LEX2 CG with Lyric Pro software and off-line workstations. The new Chyron equipment will form part of the online and offline systems installed in the MediaBiz Studios of Communications and Media Management Diploma, at Temasek Polytechnic. Chyron's LEX2 can be configured with up to two channels, two optional Clip Players, and Chyron's Lyric PRO advanced creation and playout application. The LEX2 features seamless creation to playout, real-time 2D/3D animation and a host of hardware and software features, including 2D and 3D object import, Advanced Text and Image Effects, Intelligent Interface and DB Link update, and macro creation/execution and an HD/SD high quality 3D DVE.

SEVEN SELECTS SCREEN SUBTITLING SYSTEMS

Screen Subtitling Systems has won a contract to supply HD and SD captioning systems to The Seven Network for Seven's new HD Channel '7HD' in Australia.

Seven is updating its current system of SRU32 units, which have provided subtitle services to Seven's five SD services across Australia, with Screen's Polistream captioning system. The new Screen equipment expands upon the capability of the previous system and enables Seven to provide DVB Teletext captions to support all of its HD broadcast services. In addition, Screen's technology provides Seven with the option to carry out live captioning for sport and news broadcasts.

The subtitling system from Screen will broadcast live captioning feeds from the Australian Caption Centre, repurposing current captions and playing out files as and when required. The network broadcasts content over five regions covering Adelaide, Perth, Melbourne, Brisbane and Sydney.

MOBILE TV TESTING FOR MELBOURNE

Alcatel-Lucent, in cooperation with Telstra Corporation, has announced the opening of a mobile TV handset testing service centre in Melbourne. The facility was developed to support Telstra's Mobile Foxtel TV service and will help ensure that Alcatel-Lucent's MiTV application and the Mobile Foxtel service are compatible with and operate smoothly on the handsets that Telstra offers to its customers. The first Alcatel-Lucent facility of its kind outside of France, the centre represents a key step forward in bringing mobile TV-ready handsets to market quickly, dramatically reducing delivery time from up to three months to just 15 days. The facility will test up to 100 UMTS 3G-enabled handset models a year including models from the all the major manufacturers to ensure their compatibility and suitability for the network and the anticipated applications and services to be offered. Testing will involve Streamezzo, which supplies a rich media client software application to support Alcatel-Lucent's MiTV application and Mobile Foxtel service on the handsets being offered by Telstra. *Visit www.telstra.com.au and www.alcatel-lucent.com.au*

HIGH DEFINITION IN SKY

The services of Sony's Professional Solutions and Services Division were enlisted to help New Zealand's largest pay-TV operator, SKY Network Television, design and construct its first-ever high definition studio.

Built to replace one of the company's 15-year-old studios, initial discussions around the project began in mid-2007.

Completed in March this year, the high definition studio is now fully functional and has been described as a "huge achievement" by Greg Drummond, Director of Broadcasting at SKY.

Drummond said design and building of the studio within such a small time frame was a major undertaking.

"Construction coincided with the time we were going to launch our HD services," he said. "We timed the studio rebuild to fit in with our production schedules."

Sony equipment chosen for the studio included:

- MVS-8000G vision switcher
- HDC-1400 HD camera systems
- LUMA series professional LCD monitors
- Bravia HD LCD Televisions
- BVM-L230 broadcast LCD monitors

Equipment from other vendors was also installed:

- Lawo mc66 audio console and router
- NVision NV8256 Router
- Evertz MVP system
- VIZRT virtual studio system
- Vinten Quattro pedestals
- Fujinon lenses

Greg Drummond also cited Sony's existing relationship with OSB (On Site Broadcasting Limited) as an additional benefit for SKY.

"OSB is a major supplier for SKY in terms of doing a lot of our outside broadcasts," he said. "We were aware that Sony was building OSB's new high definition OB Trailers, and because our operators work in similar environments, we knew there would be some synergies between the design, equipment and our studio."

SEVEN LAUNCHES TIVO HD

The Seven Media Group and TiVo Inc. have unveiled plans for the launch of TiVo in Australia during July 2008. Under a mutually exclusive agreement, Seven has created a digital platform to enable TiVo's digital video recorder and service.

All free-to-air television networks' digital channels in Australia will be available on TiVo. The TiVo Service will be available across Australia and

Rear of the Tivo box.

will include internationally recognised TiVo features, including 'Season Pass' recordings and 'Wish List' searches and allow users to access broadband content on their televisions.

TiVo DVRs will be sold through the Harvey Norman-owned complexes, Harvey Norman and Domayne. Unwired will support the sales and distribution of TiVo units to both retail and online customers.

According to James Wariburton, Seven's Network Director of Sales. "Customers will not be tied to an ongoing subscription plan and as new features become available TiVo HD automatically updates using the home broadband connection. There will also be additional services and accessories available as optional extras."

The Tivo box will retail for AUD$699 and feature two DVB-T tuners. Users will be able to record two channels simultaneously while watching pre-recorded material. Future plans include the ability to play content downloaded via broadband connection. There will also be the ability to access digital media, including photos, videos and music, from home PCs via a wireless network. A messaging feature will also be available and the Tivo unit can be remotely propgrammed via the Yahoo7 website or mobile phone.

The Tivo DVR.

And, yes, you can skip the ads, but only those already on the hard drive.
Visit www.tivo.com.au

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GLOBAL APPOINTS FIELD, SEGAR

Global Television has announced the appointments of David Field and Marc Segar to the newly created roles, general manager – Global services. These promotions will enhance client service in Global Television's Australian market and are effective immediately. Each executive oversees technical and project outcomes in the delivery of client services; Mr Field is based in Melbourne and Mr Segar in Sydney. Global Television's chief executive officer, Chris McMillan, congratulated Mr Field and Mr Segar on their expanded roles, saying: "Global Television has a well-earned reputation for excellent technical delivery and the highest level of client service. "With the Australian market busier than ever, and the increasing demand for High Definition services, dedicated senior executives with technical backgrounds will produce tangible benefits for our clients as we continue to partner them in showcasing the very best Australian content." The new roles, general manager – Global services, span technical services (project technical management, broadcast engineering, audio and communications) and project administration services (in situ personnel who see projects through initial scope to fulfilment). David Field began his television career in 1988 with Channel Nine Melbourne's lighting department. He later moved to the Seven Network as a lighting technician, working his way up to senior technical director on a number of Seven's major sporting events and productions. He spent 2001 as a freelance senior technical director, and then joined Foxtel where he was part of the team that built Fox Footy Channel's studio and post production facilities. In mid-2004, Mr Field joined Global Television as operations manager for Victoria. Two years later he was promoted to senior project services manager. Marc Segar's introduction to television came at Channel 4 in London where as project engineer he was part of the design team that installed Europe's first 16x9 all-digital television station. He then moved to Formula One Management, UK, as senior technical manager, working on the system design of what at that time was the world's most comprehensive portable outside broadcast unit. He also helped to design Formula One Management's post production facility and managed technical crews during simultaneous worldwide broadcasts. He joined Global Television as senior technical manager in 2001, working on major events including the Melbourne Commonwealth Games, FINA World Swimming Championships and the high definition upgrade to Neighbours.

BLACKMAGIC APPOINTS HICKEY

Blackmagic Design has announced the appointment of Phil Hickey as Director of Worldwide Sales. Hickey will be responsible for sales, business development, customer service and field support for Blackmagic Design video cards, converters and routers throughout the world. Phil has extensive experience in the video and IT industries, spending 25 years in software development, training, sales and marketing in areas from defence and enterprise servers to consumer software. Phil has worked for companies such as Apple and Digital Equipment Corporation. Phil has a Master of Arts degree from Oxford University.

IPV SELECTS GENCOM

IPV, the supplier of low bit-rate, frame-accurate video technology to the broadcast and professional video sectors, has announced it has teamed up with Gencom Technology to distribute the company's browse solutions in the region. Gencom will be responsible for promoting key products from IPV such as the company's recently launched Curator system, a comprehensive, browse-based tapeless workflow media system which allows communities of media professionals add value to their content; and IPV's SpectreView browse resolution system. www.gencom.com

MARIETTE MARKETS FOR RFS

Radio Frequency Systems (RFS), has appointed Eric Mariette to the role of Vice President of Global Marketing and Strategy. Mariette assumes responsibility for ensuring that RFS's comprehensive portfolio of RF solutions is fully visible to the global wireless sector. Mariette comes to RFS with 20 years' experience in sales, marketing and business operations in the telecommunications and IT sector, including communications solutions group, Alcatel-Lucent. His recent roles with Alcatel-Lucent were as Asia Pacific Vice President of Business Support and Operations for the mobile communications and convergence groups, based in Kuala Lumpur.

HEARN HEADS AUDIO FOR CMI

Jason Hearn has joined the team at CMI to establish a new Audio Technology product department in the role of Product Manager. A former dance music composer and producer, Hearn was formerly Product Specialist and Technical Support person within MusicLink's Audio Technology department. There, Jason was responsible for Technical Sales and Dealer/User Support and Training for products including Ableton, Arturia, CME, Echo, Korg, KRK, Line 6, Mackie, Propellerhead, Steinberg, and Vestax – giving him a vast knowledge of the hi-tech products sector. Visit www.cmi.com.au

IRDETO BOOSTS ASIA-PACIFIC PRESENCE

Irdeto has strengthened its presence in the Asia-Pacific region with a new appointment and the opening of an office in Tokyo. Bengt Jönsson recently joined Irdeto as the Regional Vice President of Sales. Based in Beijing, he is responsible for overseeing the sales efforts of the APAC region. Jönsson has more than 15 years' experience in the consumer electronics and digital TV sectors. Prior to joining Irdeto, he headed a Swedish start-up, LyngBox Media AB, which provided high-end hybrid IP/DVB set-top boxes. In addition, Jönsson previously worked for Thomson Broadband Access where he was responsible for its business in the APAC region, covering Singapore, Malaysia, India, Australia, Korea and China. He also worked with Nokia Home Communications. In addition, Irdeto also announced the opening of its Japan office, adding to its current offices in Australia, China, India, Korea, Singapore, and Thailand in the Asia-Pacific region. Located in the Chiyoda-ku business district in central Tokyo, the new office is responsible for developing business strategies and identifying growth opportunities in the country's fast growing digital, IPTV, and mobile TV markets. Visit www.irdeto.com.

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media MANAGEMENT
- STRATEGY, STAFF, STUFF

by Karl Jansson*

Heading for the Hot Spots

As a recruiter, and like most business managers, I like to follow trends and identify the warm spots around the globe before they actually escalate to a blinding hot flash.
A blinding hot flash, you may say?

Not dissimilar to a blog or feral marketing on YouTube when a link is passed on to one, then two to several, then to hundreds of recipients, a new product or service can be launched exponentially within minutes, if it's executed with precision.

With over 75,000 new food and drink products launched around the world every year ranging from true innovation, real added value products and wacky ideas to line extensions and tertiary products, there is no shortage of how to promote them.

This is just one market sector by example, well before we consider the electronics, computer and technology markets and all others known to man or beast.

So what's that got to do with us in the broadcasting community?

The hot spots for broadcasters seeking advertising revenue are those territories, products and services exhibiting an extraordinary amount of activity in hoo-ha (technical term for sales and marketing).

For me it's staff requirements whether it be contract or permanent, there's going to be an increased need for talent to broadcast the advertiser's message.

So where are the next 'Hoo-ha' Geographical hot spots?

According to the 'International Congress and Convention Association' the world's economy reflected an increase of 15% of promotional activity in 2007 over 2006.

USA and Germany held 1st and 2nd place respectively and Spain in 3rd place which is surprising as they were in 5th place the previous year.

Other noticeable changes were Japan (from 12th place to 6th place), Brazil (an outsider of the top 10 is in 8th), Not surprising is Beijing (13th to 8th) but one to watch is Taipei ranked 40th in 2006 is now 18th, and Madrid from 19th to 10th position! Singapore remains unchanged in the top 5, and Australia? 13th place in 2007.

Cities in the top 20 Vienna (no.1), Berlin (2.etc), Singapore, Paris, Barcelona, Budapest, Lisbon, Beijing, Amsterdam, Madrid, Copenhagen, Prague, Hong

Kong, Seoul, Stockholm, Bangkok, London, Taipei, Kuala Lumpur, Istanbul and Brussels (shared spot)

We could speak about revenue in terms of the 2007 Fortune 500 but their expenditure is through global interests, so hotspots are difficult to pinpoint with the majority of top 10 companies being US based. (FYI Wal-Mart is No.1 with $11B USD profits)

Not only that, most top performers are influenced by 'Sector Rotation' (Certain sectors of business profit more in certain stages of an economic cycle).

So where are the industry hot spots?

There is however a strong forecast for M&A (mergers and acquisitions) for the remainder of 2008 into 2009 and beyond, particularly for the advanced materials and composites industry developing products for the aviation, automotive, Technology, and well ...every other sector.

This covers (but not limited to) light but strong materials for improved weight and temperature efficiencies as well fracture energy (toughness). In terms of professional broadcast equipment there are significant product changes ahead in the assembled product, complimented by improved hi-end software. More robust and lighter equipment that's suited to all climates.

In the airline industry Boeing is gearing up for projected delivery schedules for the composites-intensive Boeing 787 and Airbus A380 due to the world's aging aircraft. The Middle East and Asia will lead demand for commercial aircraft throughout 2008 and into the coming decades. (Middle Eastern carriers were responsible for about 19 percent of global aircraft orders in 2007, and traffic is expected to grow disproportionately in both regions.)

Automotive is also seen to be a key market but more so from the component supplier.

As global oil fluctuations are reflected in increased fuel prices, new vehicles sales have dropped, so manufacturers are heavily committed to improving their market position by both fuel efficiency and improved advances in technology that will attract new consumers.

Component manufacturers with foresight are proving to be a valued business partner to the automotive industry.

The aerospace and defence sector is undergoing a shift driven by new commercial and defense platforms, from vehicular and aircraft supply to hand held equipment and provisions.

The replenishment of goods as a result of war shows no decrease, and Government budgets remain globally committed.

Through improved telecommunications and digital advancements the aerospace industry is also in a position of growth. Some M&A's will occur with well established and proven telecommunication providers within the Asia Pacific region. Growth in this sector should be evident by the last quarter of 2008.

Summary

So, the geographical hotspots are Spain, Beijing (ok that was obvious), Japan, Taipei or generally Saudi, Germany and the USA. There appears to be continued or accelerated growth within these corridors.

Market hotspots are high end technology manufacturers (including professional broadcast equipment), airline and automotive related industries, with additional but significant investment made in composite technology. Later in the year some key Telco's will emerge with a new image to portray.

For executives seeking increased advertising dollars or production / post related businesses with interest in TVCs or corporate packages, these 'Hot Spots' may just hold the answer.

Most of the 'Hot Spots' are currently displaying a growth pattern that is far ahead of consumer awareness, with the second half on 2008 set to influence the start of how you manage your business into 2009.

Karl Jansson is General Manager of 'J-Curve Broadcast Recruitment Consultants'.
Email: corporate@jcurve.tv
Interactive web: www.jcurve.tv & www.broadcastjobs.tv

The 2008 C+T Awards

Recognising Innovation in Products, Production, Projects

Australia • New Zealand • Southeast Asia

The response to the second annual Content+Technology Awards for Innovation has exceeded that of our first year. Winners will be announced to coincide with ABE2008 in the Sydney beachside suburb of Manly. Meanwhile, enjoy our finalist highlights.

CATEGORY: PROJECT/FACILITY ROLL-OUT

Australian Broadcasting Corporation - RoCo iTV

The RollerCoaster interactive service enhances the long-running RollerCoaster TV series. The service encourages kids to play within a television environment and gives them a new way to engage with the RollerCoaster segments and their regular programming. They can use sound effects as they watch TV. These sound effects are contributed by the audience via the website. They can play games related to their favourite shows and enter their scores via sms or online. The made up words that they submit via the website are made into word games they can play. They can scribble across their televisions. They can even throw rotten tomatoes if they want!
www.rollercoaster.com.au.

Kordia - Digital Terrestrial Television (DTT) Network

Kordia successfully deployed a free-to-air Digital Terrestrial Television (DTT) network in New Zealand in April 2008. From business case development, through network design, build and operation, Kordia delivered a 54-transmitter DTT network, reaching 75 per cent of the New Zealand population.

The project was delivered in April 2008 as a turn-key project for the transition from analogue broadcasting to digital broadcasting in 12 months. Kordia implemented a three-multiplex solution - one for each of the country's two major broadcasters and one to be shared by regional and niche broadcaster.
www.kordia.co.nz

TVNZ/Freeview/Magna Systems & Engineering - Deployment of Statistical Multiplexed MPEG-4 SD/HD service with Common Platform EPG

The Freeview service is one of the world's first live HD and SD MPEG-4 AVC DTT services. The TVNZ solution uses Harmonic's ProStream 1000 stream processing platform with DiviTrackIP distributed IP statistical multiplexing to enhance bandwidth efficiency by dynamically adjusting bit-rates based on content complexity.

The second part of this project involved Strategy and Technology (S&T)s MHEG-5 interactive playout technology being deployed for the launch of FreeviewIHD.

At launch FreeviewIHD consisted of three HD channels – TVONE, TV2 and TV3 as well as a number of SD channels. In total there are 10 TV channels and two radio services.
www.freeview.co.nz

Video 8/Front Porch Digital - Digital Archiving and Content Management in a Bureau Service

Video 8 installed a DIVArchive digital content storage management system from Front Porch Digital to provide a unique, outsourced bureau service, offering digital archiving and content management to clients with media assets who do not want to commission systems of their own.

Clients are able to deliver media to Video 8 for archiving with metadata, and can then search their content archive online via a Web browser interface using metadata keyword search. Content can be viewed online in a low-res proxy form. Clients can request content delivery to their own customers, direct from Video 8, and their customers can be given access to client content to search the client's library themselves. Full resolution versions of the content are delivered by tape or in file form on removable hard drives, as required.
www.video-8.com

Cutting Edge/Riedel – Fibre-Based Intercom System

Cutting Edge decided on a fleet-wide switch of its OB trucks to Riedel Communications' Artist platform for all of its intercom needs. This made Cutting Edge the first major broadcast company in Australia to switch to a fibre-based intercom platform.
www.cuttingedge.com.au

Media Prima/Graphics Vision/Editshare - Catch-Up TV

Media Prima Berhad is the biggest media company in Malaysia, with four television stations, radio stations, newspapers and outdoor advertising businesses. With the launch of its new "Catch-Up TV" service, Media Prima is tapping into the Internet to expand the reach of its television programs. Media Prima's New Media department had to overcome several, major production and delivery hurdles when creating the infrastructure and workflow for the VOD service. Media Prima turned to EditShare's collaborative storage solution as the production hub for the Catch-Up service.
www.mediaprima.com.my

Cutting Edge/Editshare - NAS solution for DI and other high data rate video workflows

Alex Wigen, EditShare's Australian-based Product Developer and Cutting Edge have created a cost-effective yet powerful collaborative networked storage system suitable for Digital Intermediate and High Definition workflows.
www.cuttingedge.com.au

KBS Korea/Masstech - Media Lifecycle Management System

KBS Korea chose Masstech Group's MassStore WAM (Workflow-Based Asset Management) Suite for their media lifecycle management solution. The key reason KBS chose Masstech was the ability to do partial file extraction using tape or disk from an MXF wrapped DVCpro file.
www.masstech.com

TV3/Masstech - HD Workflow Asset Management

TV3 recently upgraded its MassStore WAM (Workflow-based Asset Management) system in Auckland, New Zealand. TV3 has transitioned into

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a completely HD file-based workflow. MassStore's scalability enabled an easy transition to file-based HD workflows. TV3 upgraded their Masstech DataMovers for greater bandwidth and added a Masstech MassTranslt for K2-HD 1080i 50Mbps DHM transcoding. The sophisticated transfer engine MassTranslt was integrated with SAvISM (Smart Avid Interface) to seamlessly bridge the Avid production workflow environment to the MassStore WAM Suite.
www.masstech.com

Foxtel/Thomson Grass Valley - Advanced HD Playout & Distribution System

Thomson is a leading supplier to Foxtel for video compression technology, baseband servers, along with commissioning, training and the provisioning of an extensive support agreement.

The Advanced HD Playout & Distribution project commenced in September 2007 and included a significant design review conducted at Thomson Networks HQ in France. Foxtel sought a solution that would fulfill its need to overhaul its entire compression system from first generation SD encoding and decoding, and at the same time introduce state of the art HD encoding and decoding.

The project meant replacing ageing and less bandwidth efficient equipment with 100x MPEG2 and MPEG 4 video encoders in a mix of SD and HD. This new MPEG4 HD compression technology is based on Thomson's Mustang chipset and combined with in-house design used advanced MPEG4 tools. In addition Thomson delivered and installed a full complement of K2 HD video servers to provide new HD play out facilities.
http://hd.foxtel.com.au

TV PRODUCTION

Firelight Productions – Scorched

Scorched is a 90 minute telemovie set to screen this September on the Nine Network which will be complemented by an innovative wrap-around online experience yet devised for an Australian drama.

Scorched is set in Sydney in the near future at a time when there's been no rainfall for over 200 days. The city has run out of water and become completely reliant on its desalination plant. During a severe heatwave the city becomes ringed by bushfires which simultaneously break their containment lines leaving Sydney under siege and without sufficient water to defend itself.

In the two months leading up to the broadcast of Scorched and in the month after the telemovie's transmission the audience is invited into this future world without water through www.scorched.tv.

Once they enter this online world our audience can follow a serialised drama (60 minutes of 2-3 minute webisodes) which unfolds on a daily basis and takes the viewer right up to the very first scene of the telemovie; they can correspond and receive emails back from characters set in the future, watch faux news reports which involve many of the telemovie cast and read numerous stories.

Telemovie DOP Mark Wareham chose to shoot on the Sony F900 HD cameras for the main unit. Simultaneous to the main unit shoot, Marcus Gillezeau was directing the online prequel and sequel drama which contains 25 X 2 min drama, 10 X 2min faux news stories and faux user generated content. Marcus chose to shoot on the XDCam EX and XDCam HD because they had the right visual look and because of the post pipe. Technologically, the acquisition of all Scorched footage involved 6 different HD formats and in the case of the online drama was tape free (the Sony XD Cam EX and XD Cam HD were the main cameras).

Scorched has also been innovative in its use of archive footage and VFX. The Lab created over 100 VFX shots for the film but many of these shots are embedded to appear as captured footage or have been shot in a documentary style rather than via traditional coverage.
www.scorched.tv

Cutting Edge - AFL Specialty Camera Engineering

In May of this year, the AFL celebrated 150 years. As part of the Celebration Match televised coverage for Network TEN, Cutting Edge Outside Broadcast worked with AFL producer, AFL Films, to introduce a number of innovative cameras to the coverage.

Using HD miniature camera technology, Cutting Edge developed three packages using a total of 8 miniature cameras during the telecast. These included:

A) 2 x Goal Post Cams – a miniature HD camera with 10 x zoom lens on a miniature pan and tilt head, mounted 6 metres up the left hand goal post at each end

B) 4 x Vest Cams – A unique mount of a HD camera on a body worn vest; 1 on each goal umpire (2), 1 on a central umpire and 1 on a team runner.

C) 2 x Bench Cams – Miniature HD camera on hothead mount above the team benches.

The engineering of the Goalpost Cam, Bench Cam and Vest Cams was the first use of the new Camera Corps miniature HD cameras. The new HD cameras are unique in offering a miniaturised broadcast quality camera with a 10x optical zoom, all in a compact weather resistant housing.

The Vest Cam project used webbing vests normally used by the Military. Specialty camera engineer Jason Owen teamed with RF specialist Lateral Linking to develop special mounts for the camera, HD RF transmitter and power system. The Vest Cam allowed untethered coverage over the entire MCG field of play in pristine High Definition with a total of 4 systems in continuous use throughout the match, a first for HD broadcasting in Australia.
www.cuttingedge.com.au

Global TV - Neighbours High Definition upgrade

A world first in use of totally tapeless workflows in High definition for studio operation encompassing in field ENG material, the entire project completed on time whilst keeping Neighbours SD on air with no stop in production. System went live on 3rd September 2007 and now runs an almost 24 hour operation.
www.globaltv.com.au

Global TV/United Group Infrastructure - V8 Supercars Coverage Using Wireless HD Cameras

Global are the first Outside Broadcast company in Australia to purchase wireless cameras with HD capability. They used these in the first race of the season for the V8 Supercars in Adelaide.

This live broadcast represents a milestone in Australian TV history because the V8 racing is one of the fastest sports on air. It was captured using wireless camera technology, and the transmission was made in High Definition.

Global TV operated two LinkHD, wireless transmitters from a helicopter. On the ground, smaller (standard definition) cameras were mounted inside the competing cars, to get drivers' eye view of the races and two more wireless cameras covered the pit lanes.
Visit www.globaltv.com.au

RICH MEDIA PRODUCTION

ABC Innovation – ABC Now

ABC Now is a fast Flash/XML driven application that brings the best of the ABC's most current content to your desktop.

ABC Now is one of the first desktop applications of its kind. All media plays within the one application – i.e. without requiring the user to open a browser. A user can be reading a news article whilst listening to a live radio stream, flick between news stories, and then even activate a video from a TV program but pause the live radio stream to go back to later.
www.abc.net.au/now/

Australian Broadcasting Corporation – ABC Playback

ABC Playback is an internet broadcasting service which offers high fidelity, full-screen video for high speed internet users. The project aims to be a "rich entertainment site", where consumers can catch up with recently aired shows, archived programming and exclusive premiere content.

It aims to build on the experience of the ABC's existing video content, and work hand in hand with

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ABC Now, the download player, which launched in November 2007.

ABC Playback combines an array of intelligent features, from scheduling content across an unlimited channel architecture, to user-based playlisting. ABC TV staff can now create channels instantaneously and ABC audiences can watch full screen televisual programming in their own time.
www.abc.net.au/playback/

Australian Film Commission - australianscreen online

Australianscreen online launched in July 2007 as a promotional and educational resource, developed by the Australian Film Commission, providing worldwide online access to information about the Australian film and television industry. The website contains information about and clip excerpts from a wide selection of Australian feature films, documentaries, television programs, newsreels, short films, animations, and home-movies produced over the last 100 years. All material is made available with the permission of the copyright holders. It also includes teachers' notes that identify and describe the educational values of many of the film clips. Clips are embedded in the web pages as flash files and available for download as H.264 Mpeg 4 files.

Australianscreen combines cutting edge technologies (the Django web application framework, the Google Maps API, RSS, Flash video etc.) to turn what is essentially a database of archival information from numerous Australian film and television institutions into a rich web of compelling content.
http://australianscreen.com.au

Ish Media - www.girlfriday.tv

Girl Friday is a short format comedy series made especially for the small screen - cell, PC, iPod and PSP. All 24 of the 5 minute episodes are available from girlfriday.tv where viewers can also delve into the nitty gritty of the lead characters life through access to the inside of her online handbag'. A typical episode of Girl Friday goes beyond the 5 minute video to reveal multiple layers and subplots of the character through access to her emails, mobile phone, diary, music and other spinoff sites such as bonconsulting.com.au. All of the content is published on a personal viewer schedule and encourages a one on one dialogue with the audience via email and SMS correspondence with Girl Friday. Girl Friday is also available in Australia on Telstra BigPond's 3G Mobile TV service.
www.girlfriday.tv

TECHNOLOGY DEVELOPMENT

Radio Frequency Systems (RFS) - Dual-feed Circularly Polarized Panel Antenna

RFS has developed the world's first dual-feed circularly polarized UHF panel antenna series–the new RFS PCP panel antenna suite. This new antenna has been specially designed to support global circularly polarized broadcast applications. It also meets the exacting requirements of 'multiple input, multiple output' (MIMO) applications technology for wireless communications. RFS's new PCP panel antenna series offers unmatched RF performance and efficiency, and simplifies MIMO network rollout.
www.rfsworld.com

Fairlight - Xynergi Media Production Centre

Xynergi Media Production Centre is a complete professional audio system providing recording, editing and mixing for over 200 channels. It also supports video recording and basic editing in Standard and High Definition formats.

The system is highly compact, using little more than a standard PC with Fairlight's CC-1 acceleration card, and is controlled by the Xynergi Tactile Controller, an innovation in user interface technology.

The Xynergi controller is about twice the size of a normal computer keyboard, yet offers access to every recording, editing and mixing function needed in a large production system. Its unique "self-labelling" keys change their labels and functions when needed to expand the user's range of options.
www.fairlightau.com

FOXTEL iQ2 Set Top Box - Foxtel

The Foxtel iQ2 Set Top Unit has been built specifically to optimise the customer's HD viewing experience, which is delivered through a number of particularly outstanding features:

o 4 Tuners: the n-Simultaneous Record iQ2 will have 4 Tuners which means a customer can be recording two channels and watching a third channel - with live pause functionality - while the fourth tuner is delivering HD and SD content to the iQ2 hard disk for the iQ On Demand service.

- The iQ2 provides HD capability on all its tuners, which is more HD capability than any Set Top Unit in Australia.
- Guard Time Guarantee: With Foxtel's 4 Tuners - the recording channels can "borrow" the fourth tuner to record the Guard Time - the extra time at each end of the recording that minimises the chance of missing the beginning or the end of a programme.
- the iQ2 has an Auto Mode setting which configures the picture it delivers via the HDMI connection to match the resolution of the attached television.
- Customers can not only see the Now and Next information, but they can also view extended Synopsis information, without having to switch to the EPG itself.
- The iQ2 has been built for future expansion: it includes an Ethernet port for future Internet access and an eSATA interface so that customers can attach their own external disk drive.

www.foxtel.com.au

New Delhi TV (NDTV) - "Off-the-shelf" software for Real-Time Graphics

NDTV runs three 24x7 national news TV channels, which have a constant need for broadcast graphics like stills and animations delivered rapidly in everyday and breaking news scenarios.

NDTV decided to write its own alternative graphics software using Visual Basic.Net and Blackmagic SDI card SDK to deliver real time graphics. The graphics were created using high-end PC software like Adobe Photoshop and Adobe After Effects.

NDTV has developed a complete architecture built on top of Photoshop and After Effects, which enable efficient delivery (1 click delivery) and provisions for stacking multiple stills or animations. For the designers they do not need to learn complex new machines and work on familiar territory of Photoshop and After Effects. The solution is based on a Windows XP based personal computer and uses an inexpensive video card with SDI-out capability to deliver graphics directly on-air.

This architecture is capable of delivering any kind of media generated on PCs or Macs like Quicktime video, DivX video, audio clips and combinations of it.
www.ndtv.com

Duo Software - DuoSubscribe Subscriber Management and Billing System

Designed for the Pay TV industry, DuoSubscribe is described as the world's fastest billing system capable of processing 500,000 subscriber bills within 12 minutes and 1,000,000 subscriber bills in 22 minutes. The billing framework enables post paid, pre paid and a la carte billing options, with easy customisation of billing cycles.

DuoSubscribe also enables service providers to provide an infinite combination of channel offerings to their customers. A Delivery and Installation module on DuoSubscribe enables service providers to monitor and manage the delivery and installation of their equipment among subscribers.

Further DuoSubscribe enables web-based self-care which will provide customers with the capability of doing modifications to their channels, packages and other account details.
www.duosoftware.com

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technical STANDARDS

MPEG Enters Virtual Realm

The 84th MPEG meeting held recently in Archamps, France, saw the Moving Picture Experts Group tackling the realm of virtual worlds with calls for proposals for Information Exchange with Virtual Worlds (MPEG-V) and the Representation of Sensory Effects (ROSE).

MPEG is seeking to refine its definition for its new project - Information Exchange with Virtual Worlds, also known as MPEG-V. This project will standardise a global framework, with associated interface and intermediate format definitions, to enable the interoperability both between virtual world applications and between the real world and virtual world applications.

Interoperability between virtual world applications includes the exchange of information defining user identities and profiles, characteristics of assets (such as avatars and objects), and dynamic attributes. Information regarding ownership, rights and obligations associated with virtual goods may also be exchanged. The transfer of (virtual) currencies is also addressed.

Real world devices with potential interfaces in the new standard include sensors, actuators, and robots, while potential applications include social and welfare systems, banking, insurance, travel, real estate, and digital rights management, among many others.

ROSE

In a move to realistically represent experiences such as the shifting of ground, the presence of scent, and other effects to arouse emotions (for example - fear, suspense, or affection), MPEG has also issued a Call for Proposals for the Representation of Sensory Effects, or ROSE. This standardisation effort endeavours to augment the experiences of audio and video users, whose real-time sensory experiences have until recently been limited to those achieved by 3-D audio and video devices. By representing sensory effects for use by other devices such as fog generators for the creation of fog, or strobe lights for the flash of lightning, the ROSE standard aims to lay the foundation for users to experience more realistic stimuli from otherwise ordinary audiovisual content.
Visit http://www.chiariglione.org/mpeg/hot_news.htm

DVB for Inter-American Telco Guidelines

The Inter-American Telecommunication Commission (CITEL), a body of the Organization of American States (OAS), has decided to include the standards for digital terrestrial television DVB-T (fixed reception) and DVB-H (mobile TV) as official standards within the CITEL implementation guidelines.

The CITEL 'Digital Terrestrial Broadcasting Implementation Guide' is intended to aid OAS member states planning to implement digital terrestrial television (DTT). The Guide is a compendium of experiences from countries that have already made significant progress in the migration to digital.

The incorporation of the DVB-T and DVB-H standards in the CITEL guide has been accelerated as a result of the adoption of the standards by Uruguay, a member of the OAS. Uruguay adopted the DVB-T and DVB-H standards in August 2007 and has already launched some DVB-T services, while DVB-H trials are under way.

The selection of a DTT system is now at a critical stage for a number of countries in the region, including Argentina, Colombia, Peru, Venezuela and Chile. The inclusion of DVB standards in the Guide is seen as an important endorsement. Other countries in the region, including the Bahamas, Barbados, Bolivia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Jamaica, Nicaragua, Panama, and Paraguay are also addressing their DTT requirements.
Visit www.dvb.org

MPEG AVC Video Reference Software

The Moving Picture Experts Group has a longstanding and strong tradition of providing users of its standards with example software implementations to aid in illustrating the effective use of its standards, to serve as a reference for the testing of products, and to provide implementers with a "head start" basis for product development.

Continuing this tradition, MPEG recently completed the development of reference software for the new "professional" profiles of the AVC video coding standard (ITU-T Rec. H.264 | ISO/IEC 14496-10). These new profiles, which were standardised within the AVC standard in 2007, expand the application range of the AVC standard for applications such as source video acquisition, video production and post-production, and studio-based video editing. (Specifically, the new professional profiles consist of the High 4:4:4 Predictive, High 10 Intra, High 4:2:2 Intra, High 4:4:4 Intra and CAVLC 4:4:4 Intra profiles.) These profiles support high-precision video with sample precisions ranging from 8 to 14 bits per sample. They also support enhanced colour sampling structures such as 4:2:2 and 4:4:4 sampling as well as the more commonly-used 4:2:0 sampling, depending on the specific profile. The new software will soon be made publicly available for free as a downloadable addition to the MPEG-4 Reference Software standard ISO/IEC 14496-5.
Visit http://www.chiariglione.org/mpeg/hot_news.htm

Corporate IT Governance

Because inadequate information technology (IT) systems can hinder the performance and competitiveness of organisations or expose them to the risk of not complying with legislation, a new ISO/IEC 38500 standard provides broad guidance on the role of top management in relation to the corporate governance of IT.

ISO/IEC 38500:2008, Corporate governance of information technology, is applicable to organisations of all sizes, including public and private companies, government entities, and not-for-profit organisations.

This standard provides a framework for effective governance of IT to assist those at the highest level of organisations to understand and fulfil their legal, regulatory, and ethical obligations in respect of their organizations' use of IT.
Visit www.iso.org

ABE2008 exhibition

featuring the latest in digital broadcast & production technology

July 22-24th Manly Pacific Hotel

ABE2008 – Delivering the Digital Dividend

Scheduled for July 22-24, 2008, at Sydney's Manly Pacific Hotel and designed to compliment the annual engineering conference of Free TV Australia, the Australian Broadcast Exhibition provides a hands-on update for technology users from the converging worlds of broadcast and IT.

While the Free TV conference is a members-only affair, ABE is open to all comers and is designed to showcase solutions that reflect the technical concerns of the free-to-air broadcast sector.

Celebrating its tenth anniversary, the Australian Broadcast Exhibition has become the country's pre-eminent specialist television broadcast technology exhibition servicing Australia, New Zealand and beyond. ABE2008 will provide a unique opportunity to evaluate the latest technology developments from all points in the content production and delivery chain.

Exhibitors at ABE 2008 include Amber Technology, Autodesk Media & Entertainment, Gencom Technology, Harris Broadcast Communications Division, JVC Professional Products, Magna Systems & Engineering, Panasonic Australia, Quinto Communications, Sony Australia, TANDBERG Television, Techtel, Thomson Grass Valley, United Group Limited (Comsyst) and TekMark Australia.

For ABE related enquiries, contact the organiser, Dennis Stokes via dennis.stokes@supercatconverters.com or call +61-(0)408 336 001

THE VENUE

The setting for ABE2008 is the Manly Pacific Hotel, managed by Novotel, in the beachside Sydney suburb of Manly. Hotel facilities include: 218 rooms, a restaurant, cocktail bar, rooftop swimming pool, gymnasium, sauna and spa. It also features Wifi Wireless Internet Access, 24 hours room service, Baby sitting on request, Carparking onsite at cost, Covered car park, Dry cleaning, In-house movies, Laundry service, Non smoking rooms, and Valet parking.

Located right on spectacular Manly Beach, one of Australia's most famous, and only 15 minutes to Circular Quay by Jetcat, the Hotel is close to dining and entertainment venues in the nearby Manly Corso.

Address: Manly Pacific Hotel, managed by Novotel, 55 North Steyne, Manly, Sydney NSW 2059.
Email: h5462-re04@accor.com
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REGISTER TO ATTEND

Register your intention to attend ABE2008 and receive updates on the event.
Visit www.abeshow.tv

EXHIBITION PREVIEW

Amber TECHNOLOGY

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Expert at reaching and supporting the technology and communications markets in Australia and New Zealand, this entrepreneurial Australian company handles some of the world's most innovative and smartest electronics in the technically thirsty Australian and New Zealand markets.

As the multi-media revolution continues to gain pace, Amber is exceptionally well positioned to serve the needs of both our clients and suppliers in an era of rapidly evolving market requirements and technology.

Just-in-time and other business practices and quality procedures are in place throughout the entire organization to ensure service is focused where it should be… our clients.

Australian and New Zealand customers demand a strong local support capability before fully endorsing a product. Amber achieves this level of support by maintaining a high ratio of technical staff, taking advantage of factory training for support staff and developing and maintaining strong relationships with the supplier's technical and engineering staff .

Whether it is an automation system for fail-safe 24-hour on-air operation, cutting-edge digital on-line video systems, OB applications and services, communications, monitoring, compliance requirements or links, Amber is there supporting broadcasters around Australia and New Zealand.

Audio is undergoing a renaissance as it is incorporated into emerging technologies, sophisticated Home Theatre installations, surround sound production and voice synthesis for machine control and these as well as the traditional segments of professional audio are an integral part of Amber's portfolio.

Whatever your requirements, Amber Technology provides the bridge between state-of-the-art manufacturers and you, the client.

Autodesk®

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Autodesk, Inc. is the world leader in 2D and 3D design software for the manufacturing, building and construction, and media and entertainment markets. Since its introduction of AutoCAD software in 1982, Autodesk has developed the broadest portfolio of state-of-the-art digital prototyping solutions to help customers experience their ideas before they are real. Fortune 1000 companies rely on Autodesk for the tools to visualise, simulate and analyse real-world performance early in the design process to save time and money, enhance quality and foster innovation. For additional information about Autodesk, visit www.autodesk.com.au or www.autodesk.co.nz

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Gencom Technology is a leading and innovative provider of global media technology solutions including Broadcast Television, Multimedia and Projection, Telecommunication Systems, Design and Consultancy as well as System Integration and Support.

At ABE 2008 we are pleased to highlight the latest from our international suppliers. On the booth will be the Clarity HD Graphics Generator and LogoVision from Pixel Power UK, Routing and Master Control options from Evertz/Quartz, Disk Recorders from Doremi Labs as well as Omneon Servers, all displayed on our Precision LCD monitors from Tamuz in Germany. This year we will also feature the latest Digital Audio offerings from Linear Acoustics.

HARRIS

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Harris Broadcast Communications offers products, systems and services that provide interoperable workflow solutions that span the entire broadcast delivery chain. The Harris ONE approach brings together highly integrated and cost-effective products that are ideal for emerging media business models and for customers upgrading media operations to digital and high-definition services.

About Harris Corporation

Harris is an international communications and information technology company serving government and commercial markets in more than 150 countries. Headquartered in Melbourne, Florida, the company has annual revenue of almost $5 billion and 16,000 employees – including nearly 7,000 engineers and scientists. Harris is dedicated to developing best-in-class assured communications products, systems, and services. Additional information about Harris Corporation is available at www.harris.com

JVC
The Perfect Experience

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Email jvcpro@hagemeyer.com.au

At ABE 2008 JVC Professional will be highlighting its new solid state recording media options for the award winning ProHD range of cameras. The ProHD range will be displayed in full and includes the current flagship top-of-the-range GY-HD251E dual role studio & ENG / EFP camcorder with optional studio adapter, offering HD SDI / SDI and 26 pin multi-core connectivity. The GY-HD251E also boasts live uncompressed 1080i and live uncompressed 720p which are menu selectable as the HD SDI output, which is also carrying embedded audio and timecode. Also demonstrated will be the new firmware for the ProHD 200 series cameras which now allows 1080i recording for hard drives. There will be a particular focus on studio cameras with PTZ and remote control CCUs.

JVC will also be exhibiting their new line of broadcast and professional HD LCD and CRT monitors alongside the next generation of the award winning HD1 projector. This new model, the HD100, has the highest contrast ratio of any projector in its class at 35,000:1. Screenings using the HD100 will also be taking place in a suite at the Manly Pacific Hotel.

MAGNA SYSTEMS & ENGINEERING

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Magna Systems and Engineering will be presenting a range of Enterprise Class solutions at this years' ABE with our key theme being 'successful next generation interoperability'.

Demonstrated for the first time at ABE and arguably one of the most talked about products of the moment, is Blue Order's Media Archive® Media Asset Management (MAM) System. With more than 3,000 users every day at many of the world's largest broadcasters, Blue Order will be showcasing its flagship Media Archive 3.2 MAM system.

Also shown for the first time on the Magna stand at ABE will be Blueshape the Italian manufactured high quality professional Li-Ion and Li-Polymer batteries, chargers, and mounting accessories that are taking the Asia Pac market by storm.

Representing the latest in broadcast-quality graphics systems will be Chyron with its HyperX 2, Channel Box, Lyric Pro and ChyTV products. Chyron's HD/SD, 2D/3D graphics solutions are used daily by broadcasters in over 40 countries.

Also on the stand will be Pebble Beach automation and SeaChange servers. Pebble Beach will be demonstrating it's Neptune multi-channel automation and media management solution with SeaChange demonstrating their range of broadcast servers for SD and HD playout as well as their complete server based ingest and production environment.

The Magna stand will also house full demonstrations of S&T's TSBroadcaster, TSPlayer, TS Developer, MHEG Presenter and MHEG ENG products, Front Porch Digital's DIVArchive intelligent content storage management system, BTS' enterprise traffic management systems, SysMedia's Wincaps subtitling and Gold Content management system, EAGLE™ true "Plug and Play" integrated pan-tilt / camera / lens control systems, ENENSYS Technologies' broadcast solutions for interoperability, FOR-A professional video and audio products, Harmonic's broadband optical networking and digital video systems, Hitachi Kokusai broadcast cameras and professional video products, Miranda's high-performance hardware and software which enables and enhances the transition to a complex multi-channel digital and high definition television (HDTV) broadcast environment, Network Electronics' routing, signal processing and optical transport equipment and Telex hardwired and wireless inter-communications products.

Panasonic
ideas for life

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Panasonic Australia is part of the Matsushita group which is a global network of over 300 companies with 250,000 employees - manufacturing and marketing over 15,000 products under the brands Panasonic, National, Technics, Quasar and Ramsa. In Australia, Panasonic is a market leader in the field of Broadcast Video Products as well as consumer electronics, home appliances, office and communications equipment.

Panasonic manufactures video equipment that is ideal for people in industries as varied as the wedding & corporate video markets, educational organisations, religious organisations, news & current affair programming, documentary film-making, lifestyle programming, drama production and digital cinematography.

The professional and broadcast video equipment range includes the iconic VaricamTM family of digital cinematography cameras, the revolutionary AG-HVX202AEN HD/SD hand held camera, high definition POV cameras with remote pan/tilt systems, industry leading HD/SD vision mixers/switchers as well as industry renowned widescreen HD/

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Register at www.abeshow.tv

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SD LCD monitors.

As one of the first manufacturers to introduce Professional Solid State Recording in the form of the revolutionary P2 system, later becoming P2 HD as HD acquisition gained popularity; Panasonic is well placed to provide an effective vision for the future. The ground breaking solid-state acquisition and file-based workflow provides you with true, full production-quality video and brings dramatic improvements to the way you capture, process, and distribute HD content. With P2 HD, you will enjoy the unmatched reliability of solid-state technology with lower operating costs and the advantage of environmentally-friendly tapeless operation. This reliability is backed by an industry leading 5-year warranty on P2 HD products.

To build on the success of P2HD Panasonic is one of the first manufacturers to embrace the revolutionary AVC/H.264 compression codec. This new codec means that you can capture at mastering quality with AVC-Intra 100 intra-frame full 1920x1080; 10-bit; 4:2:2 when using P2 HD premier products or utilise cost effective long recording times on commonly available SD media cards when capturing using the range of professional AVCHD products. This new codec makes the benefits of solid state file based recording available to all production sizes and budgets.

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Since its incorporation, Quinto Communications has shown itself to be a key player in a very dynamic industry. Dedicated to to the supply and support of high technology broadcast and communications equipment, Quinto Communications is committed to excellence, whether that be in the products we sell or the services we provide.

Our main market segments include:
. Television Networks
. Pay Television
. Post Production Facilities
. Corporate Business Video Units
. Educational Establishments
. Telecommunications Organisations
. Government Departments
. Radio Stations

SONY

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Sony Australia offer a full range of solutions for High Definition program acquisition, display and storage. On display will be the eagerly anticipated PDW-700 - the latest member of Sony's XDCAM family – a 4:2:2 camcorder positioned as the HD replacement for Digital Betacam.

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TANDBERG television
Part of the Ericsson Group

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TANDBERG Television, part of the Ericsson Group, offers a broad suite of open, standards-based products that provide the highest-quality digital TV solutions, including IPTV, HDTV, video on demand, advertising on demand, IPTV and interactive TV applications. All of which are designed to maximize service offerings and generate greater returns on network investment.

At TANDBERG Television, we see clearly where television has arrived today. And, as televisionaries, we see just as clearly where it's headed tomorrow.

TANDBERG Television employs over 900 people in the Americas, Asia, Australia and in Europe, Middle East and Africa. The company's global headquarters is in Atlanta, US, with EMEA and APAC HQ's in Southampton, UK and Hong Kong, SAR. Research and development takes place at engineering centers in the UK and the USA. With over 2000 customers in over 100 countries around the world, TANDBERG Television has a highly professional global sales and support operation, as well as a network of over 80 Business Partners.

For more details, please visit www.tandbergtv.com

Techtel

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Techtel has become a recognised regional specialist company helping to bridge the gap between computer technology and traditional radio and television broadcasting technology.

The company's objective is to be the preferred independent provider of software, hardware, service and support for radio and television broadcasters, video production and post production companies and telecommunication companies in our selected market areas.

Techtel is committed to the active promotion and support of leading technology equipment in our selected market groups. We also manufacture specialist equipment for our customers.

TM TekMark

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TekMark Australia offers advanced Tektronix test, measurement & monitoring instruments and integrated best-practice solutions and services to the high tech industries in Australia. Industries supported include media, broadcast, telecommunications, defence, electronics, R & D & education. Key solutions include Video base band, MPEGP, IPTV, File Based video test & monitoring solutions, broadband IP Network access testing solutions for xDSL, CATV, GigE - Metro Network (Fibre & Electrical interfaces), Electronics Test systems & test integration and consultancy.

TekMark Australia is very pleased to be participating for the first time at the ABE as the Australian distributor for Tektronix instrumentation products. We will be exhibiting key products from the Video product line including:

* The new PQA500 Picture Quality Analyser for Standard Definition and High Definition application
* Cerify content verification system for automated testing of file-based media
* The WFM and WVR series of waveform monitors and rasterisers with support for 3GBit/sec single link SDI Video and enhanced support for teletext and OP47 Closed Captioning
* New portable and compact WFM5000 and WVR5000 waveform monitors and rasterisers
* MPEG test solutions for real-time monitoring, deferred-time monitoring, and H.264 Analysis
* New MTM400A MPEG and RF real-time monitor for monitoring of both RF transmission parameters and MPEG transport stream analysis
* New DPO3000 series Digital Phosphor Oscilloscopes ideal for video applications
* RSA3000B series Real-Time Spectrum Analyzer with DVB-T analysis software

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Used by media leaders and video professionals worldwide, Thomson Grass Valley products deliver digital affordability through technology innovation. Whether you watch television or go to the movies, Grass Valley brand products are at work. We're the world's video and film experts—especially as broadcast, television, and film production go digital. From capturing images to transmitting them as well as all the steps in between, we offer a full range of HD and multi-format products for live and studio production. And we've got the Emmy® award-winning technologies and the top-flight customers to prove it. Learn more… go to www.thomsongrassvalley.com

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We specialise in the design and delivery of turnkey systems and have developed unrivalled technical expertise in fibre optics, microwave links, wireless networks, satellite earth stations and television and radio broadcast systems. We work with our customers to ensure we deliver systems that incorporate the best technology available, where our product range complements rather than drives the solution for our customers.

We have built our reputation on providing quality communication solutions and systems. Our team is highly trained with wide ranging skill sets which enable us to provide all aspects of a turnkey project.

We couple this with our ISO 9001:2000 quality assurance and OHS & E accreditation.

We have developed mature partnerships with major suppliers of software and hardware components, including representation of leading equipment manufacturers from around the globe which include;

Broadcast Electronics, Ceragon, Elber, International Datacast Corporation, Link Research, Mayah, Mier, MNI, Newtec, Quickset, Rad, Radioscape, Sagem Scopus, Xicom, Willburt.

Support for our partner's products is also provided locally via our in house Service & Repair Centre.

The View from SMPTE

Look to Learn from Your PDA

By John Maizels, Regional Governor, SMPTE

LEARN IMPORTANT STUFF: Here's a question: when was the last time you went to school to learn something new and important and targeted about media technology? Chances are the first thought through your mind was a very blunt: "like, where, even if I want to"? Or if there was a course scheduled, then you were in Perth the same week that the event was in Melbourne. Or…. there's nothing scheduled until the next SMPTE Conference, and that's only every two years. I agree; getting access to training, any training, is a major challenge for media technologists.

The good news is that we have a delivery mechanism which works well enough: it's called "the web", and SMPTE has been investing. Over the last year, the SMPTE Professional Development Academy – the PDA – has been picking up a serious head of steam.

At the SMPTE PDA you can attend a session live via PDA Now. Or through PDA Anywhere, you can watch a PDA session in replay, pick up the text and charts, review material from past SMPTE conferences, and generally participate at a time and place that suits you. You can even download the sessions and take SMPTE PDA on the road (or in the plane, or to the café….). Many of these sessions have been delivered by world experts, with a live Q&A after the formal presentation, and those interactions have been recorded along with the session.

If you were tuned in to SMPTE PDA in the past, you might have learned about IPTV, Active Format Descriptors, Stereoscopic 3D production for the home, Digital Cinema, HD Image Acquisition, and Transition to Tapeless Digital Media. Many of the topics assume no prior knowledge, just interest on your part.

Coming up is a seriously interesting session which asks "How do new display technologies compare to the CRT" (argument, anyone?), and the coming schedule includes topics like digital intermediates, file-based technology for HDTV, and content management.

Best of all, SMPTE PDA is no-charge to SMPTE members. If you're not a member, consider: it costs less to join SMPTE than to attend three PDA events.

Have a look and tell me what you think. If there's enough interest, I'm told that we can get sessions run live in our timezone, giving you the opportunity to interact with the presenter. The SMPTE PDA is one of the most powerful educational tools you could have, and it still fits in your pocket.

> "What's really significant and different about MITC is that the industry wants to measure that you have just enough knowledge to be comfortably useful in the job and based on skills that are useful today."

Go to http://www.smpte.org/education/education_pdaanywhere/ for a sampler, even if you're not a SMPTE member. Members: just log on and get the whole experience right now.

MITC Media Industry Technologist Certification is off and running, and you should visit the shiny new website: www.mitc.tv to get a feel for the sample questions, obtain more detail on the process, or download the signup pack. By the time you read this, the first round of MITC assessments will have happened, and we will be on the way to conferring our foundation certifications.

Special offer!! For the first few assessment runs, we're trying something special as an introductory offer: do the assessment at no charge, and pay only when you pass. How good is that?

There has been quite a debate about what's important for a media technologist to know these days, and what does an employer expect? As targeted education comes back online, what do we need the schools to teach? Digital video? Composite video? Lead-acid batteries? Valves?? If someone says "router", do you think "crosspoint" or "packet"?

What's really significant and different about MITC is that the industry wants to measure that you have just enough knowledge to be comfortably useful in the job and based on skills that are useful today. No more, no less. All the research shows that baseline knowledge and, most importantly, your ability to understand a little about the speciality of the next person, is what employers really value.

So when we say "Show What You Know", we mean just that. If you've been working in a general engineering, technician or operations role in TV for a few years or more, you should be at about the right place. If you trust yourself to be in a control room, or an OB Truck, or a studio and you could describe what's going on with most of the technology, then you should be able to breeze through MITC Video Associate level without further study.

Finally, the Extra Special Offer: if you previously obtained a TOCP, and you can show that you did the Commonwealth/Department exam to get it, then you may already qualify as a MITC Video Practitioner and we can waive the assessment. See www.mitc.tv/gf for details.

SMPTE Australia Section Board welcomes new blood. The election results are out, and we are pleased to welcome to the Board two new managers: Peter Stavrianos from SBS, and John Nachef from Cisco, along with Mark Woodley (ABC) who was re-elected. Leading the Section will be Michael Day (Network Ten) as Secretary Treasurer, and Ward Hansford (Tandberg) as Section Chair. John Walsh, Marc van Agten and Sean Glasson are all half way through their current term, and remain on the Board.

As we welcome the newbies, don't forget that we've only been as successful as the contribution from those who retire from the Board this cycle. Our thanks go to John Beckhaus and Peter Collis, who have contributed to the Section over a long period and often way beyond any reasonable call. Like all SMPTE Sections, we are as good as our volunteer support, and as good as the creativity shown by your Section officers. When next you see John and Peter, tell them that you noticed – they'll appreciate it.

New Member Services Manager at HQ: A little while ago Jennifer Andrle became Manager, Member Services, taking over the role from Charlie Barone who has left the Society for other pastures. If you're having any problem with getting your membership to happen, or if your membership has lapsed and you need help to get things back on the rails, Jennifer is the person who can and will help.

The easiest way to contact Jennifer is via the www.smpte.org website. If you have any problems getting through to HQ, drop us a line here via info@smpte.org.au and we'll do whatever we can to help.

Fade to black, roll the credits.

John
info@smpte.org.au

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ACQUISITION

Mondo Turns RED for Australis TVC

>> Scene from the Australis TVC shot with RED One.

Mondo Film, the TVC production arm of Mondo Digital, recently finished shooting two new TVCs for Australis, using the Red One Camera.

On air in May and September 2008, the Australis TVCs were directed by Grant Matthews, working in conjunction with Working Girls Agency, and featuring girls from different nationalities giving a new twist to the words "You Beauty".

The Red One Camera had only been available in Australia since February this year, and one month later, Matthews shot the two TVCs.

"Shooting with the Red One Camera was everything I had imagined. It is the first real easy to use film comparable camera to be released in digital format. The end product was more than I expected, achieving the same results as if I was shooting with film," said Matthews.

Matthews says he immediately recognised the drastic reduction to the standard time frame that adopting this technology would produce. The Red One Camera shoots directly to hard disk based digital storage. Shooting at Mondo Studio in Sydney, at the end of Day 1, all the footage was immediately uploaded to the Melbourne based post-production facility Complete Post via FTP. Grading could begin as the shoot continued, with each day's footage delivered immediately in the same way.

According to Matthews, the decision to use the Red One Camera also shaved off thousands from the production budget for the entire campaign (spread over two TVCs). Effectively eradicating costs for film stock, expensive and laborious developing and telecine transfer processes, as well as cutting out all courier costs usually associated with post-production.

However, for Matthews the real highlight of the camera was the depth of information it records as it is fitted with a 35mm imaging chip, and uses film standard lenses.

According to Matthews, it allows for incredible capabilities in terms of controlling depth of field and exposure and that the latitude of information it records in the shadows and the highlights is equally strong, so that during the grading process the image can be manipulated with extreme ease, creating beautiful film-like results. *Visit www.mondodigital.com.au*

Rory Peck Awards Open

Sponsored by Sony UK Ltd, the Rory Peck Awards is an international competition which recognises the work of freelance cameramen and camerawomen in TV newsgathering and current affairs worldwide.

The Rory Peck Awards benefit from a joint effort by the international newsgathering industry and are produced with support from Aljazeera English, AP Television News, BBC News, Autoscript Ltd, BSkyB, CBC, CNN, Channel 4 TV, Film &TV Services, GlobeCast, ITN, ITV News, NBC News, Neon Broadcast Services, Reuters TV and SKY News.

There are three Awards:

* The Rory Peck Award for News. This award honours freelance coverage of on-the-day news, where the focus is on the immediacy of the story;
* The Rory Peck Award for Features. This Award honours freelance news features: in-depth pieces which look beyond the immediacy of a news story;
* The Impact Award, sponsored by Sony UK Ltd. This award honours freelance news footage which raises humanitarian issues and has had an impact internationally or contributed to a change in perception or policy

The Rory Peck Awards is the main fund-raiser for The Rory Peck Trust, the charity which exists to support freelance newsgatherers and their families worldwide in times of need and to promote their welfare and safety. The closing date for entries is Tuesday 2 September, 2008. *Visit www.rorypecktrust.org*

High Def on Any Budget

Adventist Media Network (AMN) is a production house in Sydney's North Shore that has proved that quality High Definition weekly programs can be achieved on a small budget.

AMN was one of the first production houses in Australia to purchase a suite of five Sony PMW-EX1 cameras and has launched three new shows, including a weekly half hour news and current affairs program, all with a permanent staff of only three. The programs have all been produced using Sony, Apple and Datavideo equipment.

"Producing such time critical content would simply be impossible without readily available freelance producers with High Definition camera gear," says Andrew Johnson, production manager of AMN.

The vast majority of the content used in the news and current affairs program is acquired on Sony Z1P and A1 cameras. The studio footage is acquired with the new EX1 cameras.

AMN also produced a TVC that was broadcast nationwide in March 2008.

According to Andrew Johnson, "The cameras performed brilliantly for this application and exceeded both ours and the clients' expectation for such a small production budget."

The tapeless technology of the EX1 has meant a massive productivity boost, but requires very strict back-up and data protection policies. Although the EX1 has proven to be ideal in a studio or well-lit environment, it appears to struggle in low light scenarios.

"Unlike previous models I've used, video gain boost produces unacceptable noise levels. Unfortunately, gain is simply not an option with this camera," says Johnson.

Mr Johnson believes, however, that High Definition production is now well within the reach of small to medium production houses.

"Even multi-camera OB projects are achievable with minimal outlay. Contrary to this being a bad thing, I think it is fantastic that so many more people can get their creative concepts onto High Definition screens without the network level budgets previously required."

Cannibals Shot in Tassie!

- Videocraft Supplies 1080/60p HDCAMSR

Broadcast equipment sales and rental company Videocraft provided a 4:4:4 1080, 60P HDCAM SR production system to shoot the recent Australian feature film Dying Breed. Produced by Ambience Entertainment and directed by Jody Dwyer, Dying Breed is an action thriller about four people who set out to prove the Tasmanian Tiger still lives in the forests of Tasmania, only to become prey when they stumble on descendants of a cannibal tribe.

Rod Morris, who was writer and Producer on Dying Breed, approached Videocraft with an equipment wish list for the film. His main requirement was to be able to shoot 1080 60p making the HDC1500 HD camera and SRW1 HDCAM SR portable recorder system perfect for the job.

"I decided that for Dying Breed we were going for a digital shoot rather than a film shoot. Speaking with Andy [Liell] and the Videocraft team about the HDCAMSR 1080 60P system it became clear that this was the only way to go," said Morris.

The portable acquisition system supplied to Morris and his crew by Videocraft comprised Sony's HDC1500 HD camera and SRW1 HDCAM SR portable recorder, offering up to 1080 60P 4:4:4 RGB recording in a compact portable package. Significantly it was the first system to offer 1080 60p and the only one available in Australia through Videocraft.

>> Dying Breed DOP Geoffrey Hall atop the Filmair Giraffe Classsic Crane with the HDC-1500, and at ground level (L to R) First Camera Assistant Kevin Scott and actor Peter Docker as 'Alexander Pearce'.

>> The main Unit on location in Tasmania. [Foreground L-R] Director Jody Dwyer, DOP Geoffrey Hall and First Assistant 'A' Camera Kevin Scott. [Background L-R] 3rd Assistant Director Andy Wilson, Writer Producer Michael Boughen, Production Designer David McKay, Continuity/Script Supervisor Kira M Bohn and Standby Props Ben Walker.

>> The HDC-1500 camera set up in a custom-built rig in studio for one of the 100+ VFX shots in 'Dying Breed'.

Morris continued, "Videocraft also supplied us with the SONY HDWF900R HDCAM CineAlta camcorder kit for our on-speed cinematography which, as most people know, George Lucas used on Star Wars Episode Two. The combination of the HDWF900R and the HDC1500 produced truly outstanding results. The HDWF900R was flawless giving an amazing filmic look even in the most extreme conditions of a cold, wet Tasmanian winter. The HDC1500 was so incredibly sharp it left us wondering just how Sony had produced such a camera. We particularly wanted the HDCAMSR system so that we could make best use of being able to shoot 4:4:4 1080 60p for all of our 100+ VFX shots. Having looked around extensively at all other options, I can't honestly think of a better way we could have done this."

DOP on Dying Breed was Geoffrey Hall ACS, who added, "There were many opinions and options on how to shoot Dying Breed including the more traditional 35mm approach. Two things sealed the deal for us. Firstly it was just how good the HDCAMSR system is and secondly the significantly high level of expertise, service and support from Videocraft. They are an excellent partner to have on board. With a great understanding of what the equipment was to be used for, nothing was ever too much trouble and any issues were resolved within 24 hours. It was a magnificent service."

In addition to the HDCAMSR system and HDWF900R camera Videocraft also supplied a unique set of Fujinon E-Series Prime lenses, owned by HD specialists C4Camera in Auckland, NZ. One of only two sets in the world, the cine style lenses were developed specifically for Star Wars Episode III and according to Hall gave very impressive results.

He commented, "The E-series lenses are spectacular glass. I can't stress enough what a coup it was getting these lenses. Videocraft and C4Camera really went out of their way and we are truly grateful. The end results are truly stunning images."

Videocraft's Andy Liell concluded, "We are delighted to have been able to help Rod, Geoffrey and the crew of Dying Breed every step of the way in their production. Supplying equipment for this kind of major feature is very much a part of our future direction at Videocraft."

Dying Breed had its premiere at this year's Tribeca Film Festival in New York and is released nationally in Australia on 14 August 2008.

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acquisition adventures
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Priceless Jules

>> On the set of "How to Change in 9 Weeks". [L-R] Clapper loader Sky Davies, Gaffer Peter Bushby, DP Jules O'Loughlin, Focus Puller Dan Maxwell.

Name: Jules O'Loughlin

Recent projects and work in progress:
Completed the feature film "How to Change in 9 Weeks" in late 2007. Presently attached to three features.

Relevant society memberships:
Australian Society of Cinematographers, AFI.

On being an ACS member: "I have found the ACS incredibly valuable in my career as a Cinematographer as the members have always been great sources of knowledge and inspiration. Members of the ACS are very generous with their time and knowledge and the culture of co-operation strengthens our industry generally and encourages the next generation to give of their time as well. The ACS also continues to promote excellence in the industry through its education sessions and its award programs."

Inspirations: "I continue to be inspired by the artistry and generosity of spirit of Australian cinematographers such as Andrew Lesnie, Peter James, Dion Beebe, Russell Boyd and John Seale ..... to name a few."

Advice for future cinematographers: "Listen to your heart, follow your gut and trust your eye."

Management: Stacey Testro International.
Tel: +61 3 9690 0099. Email: emma@sti.com.au

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Polecam Supports Mobile HD

The recent BroadcastAsia show saw Polecam display its latest advances in mobile HD production equipment. The company showed a complete HD capture system comprising a miniature HD zoom camera, a solid-state HD field recorder and Polecam's single-operator camera crane.

Designed for easy transport and fast set up, the Polecam camera rig is ideal for use with miniature HD camera heads. The rig itself weighs a maximum of 20 kg (35 kg in transit bags), and has a reach of up to 6 metres.

The company exhibited its rig along with the latest-generation HD MiniZoom camera from Camera Corps – a miniature 1/3-inch CMOS-based HD camera with a remote control zoom lens. Weighing just 285g, the HD MiniZoom is encased in a weather-proofed aluminium housing to protect against heavy rain and dust.

Toshiba's IK-HD1E three-CCD camera was also on display. The new Toshiba camera captures 1080i 50/60Hz and accepts standard C-mount lenses.

Polecam demonstrated the new Flash XDR HD Xstream solid-state data recorder – a lightweight solid-state recorder that can be mounted at the rear of a Polecam rig. Flash XDR is a digital recorder that captures high-definition video straight to CompactFlash solid-state memory cards. It can capture up to 164 minutes of 50 Mbps MPEG 4:2:2 1920 x 1080 HD video, along with embedded or external audio plus timecode, on four hot-swappable 16 GB memory cards. The recorder also supports MPEG2 4:2:2 at 100 and 160 Mbps as well as HDV over IEEE 1394.

In addition, Polecam unveiled its Fishface submersible pan and tilt camera housing. The new underwater housing can be used to a depth of 4 metres on the Polecam rig, or independently down to 10 metres. The carbon fibre support arm incorporates drainage holes which allow the boom to flood and clear quickly. It can pan a full 360 degrees and offers the same unrestricted movement as a standard Polecam dry head. Pan and tilt are controlled via a fully sealed one-piece gearbox.

Visit www.polecam.com

One-Frame Delay for Wireless Cameras

RF Central's new RFX-CMT-II camera-mounted transmitters are now available with one-frame delay option. This makes the wireless transmitters, (available in both 2 GHz and 5.8 GHz), ideal for live sports and entertainment coverage, giving users the ability to intermix wired cameras with an RF wireless camera for a seamless live broadcast.

The Carlisle, PA-based company, part of the Vitec Group, first debuted the 2 GHz and 5.8 GHz units at NAB in April.

They are available in standard definition and are software upgradeable to high definition. The low latency, one-frame delay feature is available as an additional option as part of a complete system that includes an RF Central low-latency HD/SD decoder.

Visit www.rfcentral.com

Switcher and Multi-Camera Control

Vaddio has introduced the newest addition to the ProductionVIEW line of camera control systems – the ProductionVIEW HD.

ProductionVIEW HD integrates PTZ camera control and multi-format HD/SD live switching with real-time graphics and effects into one easy-to-use control console.

The completely redesigned control surface gives system users real-time knobs and switches to control functions, as opposed to a programming menu. Because ProductionVIEW HD is a live broadcast production console, not a computer, the entire system produces only one frame of delay.

The system's multi-format 6 x 2 switcher accepts any combination of input signals from HD component video, RGBHV and SD video. All inputs feature both upconversion and downconversion capabilities.

A wide variety of transitions, including cuts, dissolves and wipes, can be achieved through user-selectable buttons built into the control surface.

A new Lower Screen Graphic (LSG) function allows users to add lower-third graphics to their presentations.

For camera control, the ProductionVIEW HD offers a broadcast-style Hall Effect Joystick with twist handle zoom control, as well as separate Pan, Tilt and Speed control knobs. There are six discrete auto-sensing RS-232 camera control ports and 12 camera pre-sets per camera for storing frequent shots.

Lens control features include a large production-style manual focus wheel, an iris control knob allowing for live manual adjustments, as well as push control buttons for auto iris and focus. Plus a zoom speed knob enables operators to control the speed of the electronic zoom lens.

ProductionVIEW HD is compatible with Vaddio, Sony, and Canon PTZ camera systems.

Visit http://www.vaddio.com

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CLASSIC CAMERAS

Mitchell BNC - Circa 1950

This BNC, Number 87, is quite possibly the oldest BNC still in original condition as most were modified over the years. This particular camera was manufactured in 1950 and first delivered to a production company in New York in 1951 where it remained until the company closed in the late 1960s.

BNC stood for Blimped Newsreel Camera and the Mitchell BNC became the camera of choice for major motion picture production from the Second World War until the late 60s.

A total of 364 of these cameras were built, but it is interesting to note there was no Number 13. This camera belongs to ACS member Viv Scanu.

Visit www.cinematographer.org.au

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Reaching for Dalsa

By Scott Lehane

U.S. theatre chain, Landmark Theatres recently hosted a 4K screening of LeVar Burton's new film Reach for Me at its flagship L.A. theatre, The Landmark. Since the theatre was outfitted with Sony's SXRD 4K Digital Cinema Projection Systems a little less than a year ago, it has served as a premiere theatre for a variety films re-mastered at 4K.

But the screening of Reach for Me marked an important "first" as Burton was the first director to shoot and produce a feature-length motion picture entirely in 4K using Dalsa's uncompressed 4K digital camera – the Origin.

Dalsa first introduced the Origin in 2003, (long before anyone had even heard of Red), and over the last few years, the camera has been used mainly as a visual effects camera for green-screen shots, including a sequence in the upcoming James Bond film Quantum of Solace, as well as the short educational film, Postcards from the Future, which was almost entirely green-screen, along with several commercials and other short projects. But Hollywood filmmakers tend to be "risk averse" when it comes to new technologies, and were reluctant to rely on the Origin as their main camera for a full-length feature.

In addition to directing, Burton also acts in the independent film, which was lensed by cinematographer Kris Krosskove. Charlene Blaine-Schulenburg, Susan R. Rodgers and Mark Wolfe produced the film through AMediaVision.

Burton explained that Dalsa and L.A.-based post house, Post Logic Studios "came to their rescue" in the preproduction planning phase. "We were having a difficult time. We had just come to the conclusion that it was going to be impossible for us to afford to shoot on film, and we knew that some sort digital media of recording was in our future. We could never have even dreamed of being able to afford 4K digital cinema technology."

But at the time, Dalsa Digital Cinema was looking to get a feature film under its belt, as a proof of concept and a real-world test. Hence, Dalsa gave the filmmakers a break on the rental price of the cameras and Codex recorders, and backed the project with tremendous on-set support.

Reach for Me was shot over the course of 18 days in late 2007 and finished earlier this year at Post Logic Studios.

"The story is a simple one. The lead character, Alvin, is a man in his 70s and he is dying. He's in hospice care, and he is not a very nice man. In fact, he's angry," explained Burton. "His roommate in the hospice – his only friend in the world – dies. He

>> >> **Reach for Me DOP Kris Krosskove.**

is given a new roommate, a young kid in his 20s named Kevin. The story is about Kevin teaching Alvin how to die with dignity, like a human being."

For cinematographer Kris Krosskove, "The 4K image is as close to shooting film as a DP will probably get, and so I was very excited and embraced it. I've done this for quite a while, and you look forward to some new challenges, otherwise you get stuck in the same old doldrums."

"It was a very ambitious schedule," said Krosskove. "We didn't have a whole lot of time. We were cramming a lot of page count into a 12-hour day and it was a matter of approaching this like film. So, I didn't really use the monitors as much as you would on an HD shoot, and exposed it as if I were shooting film, knowing that later you can deal with the colour correction aspect, just as you would in the film world."

Krosskove explained that given the weight of the Origin, steadicam was out of the question, and the film was shot entirely with the camera mounted on a dolly. But as so much of the film is set in one room, that didn't bother him.

According to Krosskove, "We all knew going in that this was a testing ground for both Dalsa and the industry to see how this thing performs. So, there are going to be little bugs here and there. But they've got the hard part done—they've got the image down pat. Now let's get the other little nuances to make it real production-friendly camera."

For Krosskove, the main issue was the weight and size of the camera and the fact that it's tethered to a recording device. "The down side for me is anytime you do something digitally, you're umbilically connected. Coming from film, I really like the independence of being able to throw a camera on your shoulder and get some shots."

Post Logic's Mitch Bogdanowicz, executive VP of imaging science and Denis LeConte, VP of software engineering were instrumental in developing the 4K workflow for the film.

Bogdanowicz explained that he had one key recommendation for the cinematographer, namely, "treat the digital data just like you would film stock. Think about the time that you have the camera running just like as if you had film stock running though the camera. If you have film, you'll start rolling just before the shot and then stop afterwards. But because it's digital, many people think 'hey, it's free' and let the camera roll. But then they are going to be charged for extra tapes and extra time for archiving the tapes."

Indeed, data piles up very quickly shooting at 4K. The filmmakers recorded up to two terabytes a day onto a Codex hard drive storage system.

Chan Mahon of LA-based TV Pro Gear helped develop an on-set offline workflow that enabled the filmmakers to get 2K ProRes QuickTime files for viewing dailies and for offline editing in Final Cut Pro.

"They needed a simple workflow to get high-resolution compressed video from the dpx files," explained Mahon. "We took an HD-SDI feed from the Codex and then in real time we could turn that into an Apple ProRes 4:2:2 file using an AJA Kona card."

The original files were then copied from the Codex recorder onto a Ciprico Media Vault and transported to Post Logic.

Upon arrival, the data was backed up onto 400GB LTO3 tapes, with all assets and metadata meticulously catalogued in a proprietary database. With the LTO3 tapes serving as the 4K image master files, Post Logic Studios matched up the time codes with the offline EDL to create the final 4K product.

They ended up with over 250 LTO tapes.

LeConte explained that the online conform was done in a Quantel iQ, while colour correction was done on a FilmLight Baselight 8.

"It's kind of akin to film scanning. You retrieve the data from tapes, but you don't process absolutely everything that was shot. You only retrieve what will end up in the final online, plus handles just to allow for some editorial changes," he said. "In the whole workflow right now, the bottleneck is more retrieving the data from tape, rather than processing it.

"It's similar to shooting film. It's probably a bit faster than a film-based workflow, but in terms of data volumes and quality, that's about where it is."

Visit www.dalsa.com/dc/index.asp

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Field Glasses and FujiFilm at ACS50

At this year's ACS50 conference and exhibition FUJIFILM promoted its Eterna 160 negative film by sending a personalised invitation to all DOPs and cinematographers attending the event with incentives to try the stock.

FUJIFILM General Manager Recording Media/ Motion Picture Film Marc Van Agten explained, "The invitation had three parts. The first allowed the visitor to pick up a free can of Eterna 160 from us. The second gave them a free test with a Panavision 35mm camera and finally Atlab would process the film and do a workprint or Telecine onto a video tape stock also for free. All in all, a great opportunity to try our latest and best film stock, and for their trouble, the attendees also received a free pair of Fujinon 7X50 MTR/7X50 WPC binoculars."

FUJIFILM's Eterna Vivid 160 presents a new palette for motion pictures or TV with intense colour, high contrast, exceptional sharpness and movie image quality in the studio or outdoor daylight. ETERNA Vivid 160 is suitable for studio work at E.I. 160 colour and for daylight location

>> >> **Dean Semler and FujiFilm's Marc Van Agten [right] with antique Mitchell STD-NC 35mm camera.**

use at E.I. 100. Its sharpness and image quality also make it a great choice for telecine transfer and sophisticated digital effects.

Marc Van Agten continued, "We had a real 'who's who' of top DOPs and cinematographers visit our stand, one of which was Dean Semler (Dances With Wolves, Bone Collector, Apocalypto). Dean, in addition to discussing ETERNA 160, was fascinated by the antique Mitchell STD-NC 35mm camera we were displaying as it was the first Fuji ever purchased and dated back to 1932."

The Mitchell camera also had pride of place on the Gala night red carpet where Dean and all other attendees had their picture taken with it.

At ACS50 FUJIFILM also displayed their new range of P2 cards. Van Agten added, "Sales of P2 cards have doubled every year since 2004 and with 840 networks currently using P2 and now all major camera manufacturers pushing solid state formats, we are expecting big things.

"FUJIFILM was very proud to be the Major Sponsor of such a prestigious event. The ACS is one of the oldest cinematographer societies in the world and its members represent the cream of Australian craftsmanship in their field. As a result of ACS members increasingly using our film stock we have had a very successful last 12 months and it's great to be able to give something back."

Visit www.fujifulm.com.au

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SPORTSCASTING

Beijing on the Starting Block

A LAST 'warm-up session', July will see final preparations put in place for the Beijing Olympics with the opening of the Athletes' Village and rehearsals for the Opening Ceremony.

The Beijing Olympic Media Center has already moved with accredited media services being offered from out of the Main Press Center (MPC) and non-accredited media being catered to from the Beijing International Media Center (BIMC) in Beijing's Gehua New Century Hotel.

Rights holders will also be nailing down final arrangements following last minute changes in Chinese Government procedures for visas and the importation of equipment, as well as new restrictions on filming in certain locations around Beijing.

Late May saw tense exchanges between broadcasters and Olympic organisers as a new stringent security regime threatened to place limits on live coverage in Tiananmen Square, in addition to allegations that freight shipments of TV broadcasting equipment were being held up in Chinese ports. The response from authorities? More paperwork, including the requirement for forms specifying where satellite trucks will be each day of the games.

Getting in ahead of this potential chaos has been Australia's Seven Network and its partners in 7 BMC (Beijing Media Centre) and its International Broadcast Base (IBB). This will be Seven's last Summer Olympics as rights holder (Nine and Foxtel take up the mantle for London 2012) and, along with satellite services provider GlobeCast, Canadian integrator Broadcast Systems Equipment and the Pangu Plaza hotel/office/residential development across from the Beijing Olympic Green and the Olympic Stadium (see cover pic), the network has made the canny move of establishing a world class broadcast centre which can cater for its own needs as well as that of third party broadcasters.

Broadcast Systems Equipment have designed, built and will maintain the 'Beijing Broadcast Base' in 5400 square meters of space in the Pangu Plaza. Facilities

>> >> The 'Bird's Nest' Olympic Stadium

>> >> Pangu Plaza, home of 7BMC's Broadcast Base.

will include a Master Control Room, various-sized Production Control Rooms, Edit Suites, etc.

International delivery of signals from 7BMC's Broadcast Base and live positions will be provided by GlobeCast. The company has 15 teleports and technical operations centres worldwide providing support.

Live Site Production Platforms with numerous studio and stand-up positions will be provided in two locations on the west side of the Olympic Green at the Pangu Plaza with views of the Stadium and Aquatics Centre. There will also be a Live Site Production Platform on the east side of the Olympic Green

7 BMC is headed by Gavin Romanis, Chief Operating Officer. Formerly of Gearhouse Broadcast/Seven Network, Romanis is backed by Project Directors Doug Fraser and Kennis Chu; Project Chief of Engineering Mick Tindill; Project Director of Marketing and Client Services Carlos Lam and a whole team of local and international specialists.

From across the Tasman, TVNZ will broadcast more than 800 hours of free-to-air Olympics action to New Zealanders this August, delivering LIVE coverage of the world's biggest television event on TV ONE, TVNZ Sport Extra (Freeview Channel 20) and two dedicated on-line 'channels'. TV ONE's coverage of the Games will be available in HD via the DTT Freeview platform.

With Beijing a viewer-friendly four hours behind New Zealand, TVNZ's coverage of the morning sessions will kick off at around 12.30pm and continue through the afternoon and evening.

TVNZ is the official rights holder and will have a full production team on the ground in Beijing, including a strong news and current affairs contingent, dedicated new media producers, and more than 20 expert commentators sourced from New Zealand, Australia, Africa, the USA, the UK, and Europe.

The Beijing Olympics will be broadcast via satellite to 18 stations in the Pacific region on the TVNZ Pacific Service, and TVNZ will also be producing Olympic coverage for delivery to South Africa, Asia, and North Africa, including the Arab States.

NBC PROMPTS WITH AUTOSCRIPT

Autoscript has been selected to provide teleprompting equipment to NBC during the network's coverage of the 2008 Beijing Olympics from Beijing, China August 8-24. The announcement was made by Craig Lau, Vice President, Information Technology, NBC Olympics and Brian Larter, Worldwide Managing Director, Autoscript.

The agreement to supply NBC with the latest Autoscript technology includes fifteen WinPlus News systems, the intuitive Windows-based teleprompting suite linked directly into an Avid i-News electronic newsroom system.

The contract further includes seventeen 17-inch TFT high brightness On Camera Units and six 15-inch TFT On Camera Units for use alongside WinPlus in NBC's studios on location in Beijing and from various venues, including swimming, gymnastics and boxing. An additional 8-inch TFT lightweight system will be deployed for roaming coverage.

Craig Lau, VP Information Technology, NBC Olympics said, "In a high-pressure situation like the Olympic Games, we have no margin for error - so we can't afford not to choose the absolute best of the best technology solutions that work flawlessly and effectively. That's why we continue to partner with Autoscript for our teleprompting needs."

Visit www.autoscript.tv

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Mediagroup Brings Winning Sound to Olympics

"I DECLARE OPEN the Beijing Games celebrating the 29th Olympiad of the modern era." More than 90,000 visitors to the Beijing Grand National Stadium will hear these words on the 8th August 2008. They will be mixed on two Salzbrenner Stagetec Mediagroup AURUS desks installed in the stadium central control room and will be fed via a NEXUS audio network to the sound-reinforcement system comprising 220 line arrays. The audio will be forwarded from the AURUS control room via MADI lines to the IBC (International Broadcast Centre) and some 60 OB trucks, many of which are equipped with audio technology from Salzbrenner Stagetec Mediagroup, one of the major audio-system suppliers for the Olympics 2008.

When searching for a high-end system suitable for the National Stadium, Chinese system integrator Guangzhou Ruifeng Jianscheng Ltd. opted for two AURUS systems by Stagetec. The tasks of the AURUS/NEXUS system implemented in March 2008 include sound reinforcement of the vast sporting venue and providing the international audio feed to the IBC. The master console is an AURUS featuring 40 faders with a processing capacity of 96 audio channels. The smaller AURUS slave console offers eight faders and accesses the same DSP resources as the large system. The slave console addresses the requirements of specific zones inside the stadium that are fed with signals different to those going to the main spectators' area.

Both consoles are connected to a NEXUS audio network comprised of eight Base Devices plus a NEXUS STAR. In addition to the variety of formats this configuration supports, a key benefit of this integrated solution, typical of STAGETEC systems, is that the NEXUS internal audio-processing features can be used. For instance, all delay lines are set using the NEXUS DSP. This provides for latency-free audio while preventing inadvertent changes to other settings, for example, the console set-up.

According to Stagetec, the Bird's Nest planners were so convinced by AURUS and NEXUS that the overall system was permanently installed. This means that, in contrast with many international sports events, no hired equipment will be used in the National Stadium sound control room.

The OB fleet that will supply the world with audio and video from Beijing includes broadcasters from Asia, America, and Europe are sending their flagship vehicles to the Games. HDTV and 5.1 are the standard formats that will be used at the Olympics.

One of the most impressive units is a new HDTV truck belonging to CCTV, China's state broadcaster. The vehicle accommodates more than 25 cameras and includes a generously equipped control room

<< << Equipped with a Stagetec AURUS/NEXUS audio system and built by Sony UK, CCTV's new HDTV OB truck.

that makes perfect use of the available space with a dedicated extension. The AURUS/NEXUS system implemented here is more than appropriate for the surround-sound specifications: The console has 48 faders and 96 audio channels and accesses five NEXUS Base Devices, two of which are available as mobile stage boxes outside the vehicle. The total number of I/Os is 300×300, offering excess capacity even for HDTV surround sound. A small TRIAGON console by Mediagroup integrates perfectly with the system architecture. The TRIAGON uses a digital signal processor independent of the NEXUS STAR and can be inserted into the audio network as required using MADI lines.

This HDTV truck, made by Sony China as general contractor and built by Sony U.K., will make its debut at the Summer Games. The audio systems were shipped to UK immediately after the tender had been won at the end of 2007.

At about the same time, Hunan Economic TV, a Chinese regional station, received its HDTV OB truck packed with Salzbrenner Stagetec Mediagroup technology. This fast vehicle houses eight cameras and also includes an AURUS in the control room. With its 40 faders and 96 channels, it is hardly less powerful than the prominent CCTV acquisition. The two stationary NEXUS Base Devices are supplemented by a mobile ultra-compact 1-U NEXUS Base Device that was specifically designed for sport broadcasting use. In total around 250 × 250 I/Os are available on the truck. Hunan ECTV is a partly commercial station and broadcasts a 24/7 programme for the people living alongside the Yangtze River–more than 64 million people.

tpc tv productioncenter is also sending an OB vehicle with Stagetec systems aboard to the Games. The Zurich-based TV production company's HD-1 truck is a 36-ton vehicle which houses an AURUS with 128 audio channels plus a NEXUS matrix offering 700 × 600 I/Os.

tpc tv productioncenter will also equip their central apparatus room at the IBC with STAGETEC systems for the Games. A total of five NEXUS Base Devices rented from STAGETEC offer an overall capacity of around 1000 × 1000 I/Os. One of the main reasons why such a high-performance NEXUS set-up is required is that each video signal will be accompanied by audio commentary in German, French, Rhaeto-Romanic, and Italian - the four official languages of Switzerland. Producing surround sound in such an environment results in a hugely increased demand for audio channels and routing capacity, a requirement that was met by tpc by using NEXUS. Most of the NEXUS systems in the control room are equipped with the HDTV-enabled XHDI SDI-embedder/de-embedder board and XER and XET AES I/O boards.

CCTV's new and prestigious broadcasting centre, the China Central Television Headquarters in Beijing, will already be in use during the Olympics. In this giant building the E14, E15, and E17 control rooms will be equipped with AURATUS XL consoles and an appropriate NEXUS network. Each of the three consoles offers 84 audio channels - two of

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Mediagroup Sound

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them with 24 fader control surfaces, the third with 32 faders.

A custom configuration was required in order to achieve highly flexible utilisation of the studios. To be able to configure the NEXUS network quickly and conveniently from the control room, the control computer, which is normally an external device, was integrated into the AURATUS desks. The operators access the NEXUS configuration software using a special panel equipped with a trackball and keyboard terminal. All settings are displayed on the central TFT, which has been equipped with a switchover function for the purpose. This arrangement enables highly flexible use of the NEXUS network with its approximately 200 digital inputs and 80 broadcast outputs. In addition, since the extensive AURATUS logic functions are also configured using the NEXUS software, an extensive influence on controlling broadcast-specific GPI/O and other events is also possible.

Visit www.stagetec.com

Responses to London Spectrum Planning

UK regulator Ofcom has published a summary of responses to its discussion document on spectrum planning for the London 2012 Olympic Games and Paralympics Games.

On 30 November 2007, Ofcom published a discussion document on spectrum planning for 2012. This addressed issues needing consideration in planning spectrum use for the London Games. It asked stakeholders to assess the regulators assumptions and the approach it was proposing.

Ofcom received 15 responses and will address them when it consults on a draft spectrum plan for the London Games sometime after the Beijing 2008 Olympic Games and Paralympic Games.

Ofcom says it has identified the use of higher-frequency spectrum that is less scarce as a possibility for 2012. In January 2008, the regulator published a report by consultants Sagentia, addressing the feasibility of using SHF (3-30 GHz) and EHF (30-300 GHz) spectrum to provide wireless camera connectivity for the London Games and for programme-making and special events (PMSE) generally over a longer timescale. Sagentia found that there is scope in principle to migrate a proportion of existing usage at 2.3 GHz to higher frequencies, with the greatest opportunity at 7.5 GHz for in-stadium outside broadcasting applications. While activity at 60 GHz will start to open up the use of even higher frequencies, existing applications are not sufficiently close to those of wireless cameras to make the technologies relevant in time for the Games. *Visit www.ofcom.org.uk/consult/condocs/spectrum2012/statement/*

24/7 HD Coverage for Kiwis

From the 8th of August, New Zealand's free-to-air digital television and radio platform Freeview will enable its viewers to experience the Olympics exclusively in high definition on TVNZ's TV One plus 24/7 coverage on Freeview channel 20 – TVNZ Sport Extra. The FreeviewIHD service is currently available to around 75 per cent of New Zealand homes via UHF transmission. Homes outside these areas can still enjoy coverage with the additional purchase of a Freeview satellite receiver, and satellite dish if required. Supporting the coverage, Freeview has announced the launch of a suite of integrated digital TV's, in conjunction with Sony. Sony BRAVIA V and W series sets will enter the NZ market between now and Christmas 2008 with FreeviewIHD built-in. Along with integrated digital TV's (iDTV's), a number of new (stand-alone) digital receivers, including those with recording capability, are set to arrive in 2008.

Intelsat to Transmit HD Olympics for EBU

Intelsat, Ltd., has announced that the European Broadcasting Union (EBU) has signed a multi-transponder deal for the video carriage of the 2008 Summer Games to Europe. The EBU will use C-/Ku-band cross-strap capacity on the Intelsat 706 satellite, located at 50.2 degrees East, to distribute the all high-definition event to its members. The EBU, of which a large proportion of the major European broadcasters are members, provides a full range of network services, including but not limited to HD transmissions to broadband video carriage. Intelsat will be on site in Beijing providing managed services to both the rights holding and non-rights holding broadcasters. Services will include:

- Managed platforms for encoding and multiplexing,
- Transmission services via the Intelsat global network to virtually any destination in the world,
- Managed fiber services,
- Turn-around services on the Intelsat network to include standards conversion, re-mux and data/IP,
- Live shot position, with backdrop of the Olympic Stadium and Olympic Green,
- Multi-format tape play-out services, and
- Feed point connected to a fixed uplink in Beijing.

Visit www.intelsat.com

Miller Supports Beijing Coverage

Since early this year, camera support manufacturer Miller has delivered a large quantity of Arrow40 camera support systems to China Central Television (CCTV) for ENG news coverage during the Olympic Games. All the systems are paired with the latest HD cameras from Sony, Panasonic and Thomson.

Miller has also supplied Arrow40 systems to Tianjin TV to broadcast the Soccer games which will be held in Tianjin Olympic Centre Stadium. Beijing TV has also equipped their 7 new HD studios with Arrow systems; and Miller's Chinese distributor Guan Hua has prepared plenty of Arrow55 systems as their loaner stock to fully support the coverage of the Olympic Games. The new Arrow range is precisely manufactured and assembled. Combined with more than 50 years history, they are built exactly to support an ultra stable platform with smooth pan and tilt movement for highly demanding HD cameras.

For more information about Miller Arrow fluid head, visit the Miller website www.millertripods.com.

For camera support system rental during the Olympics, contact Miller's authorised dealer Guan Hua in Beijing.

Tel: +86 10 5900 3437. Email: miller@ghg-av.com.

Australia's ABC Unveils Paralympic Plans

Comedian and TV presenter Adam Hills, Paralympic Gold Medallist Louise Sauvage, and ABC Sport presenters Karen Tighe and Steve Robilliard will make up the team to present ABC TV's exclusive coverage of the Paralympic Games Beijing 2008.

The team will be in position to bring viewers all the excitement of the Games when they start on Saturday September 6, with the spectacular Opening Ceremony broadcast live from the National Stadium in Beijing.

"We are delighted to have such a stellar team of presenters to bring ABC TV's viewers coverage of every memorable moment experienced by Australia's elite Paralympic athletes," say Kim Dalton, ABC Director of Television.

The ABC will broadcast more than 100 hours on ABC1 and ABC2 - the biggest coverage of a Paralympic Games ever.

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Visit www.beijingbroadcast.com

Blue Order Provides DAM for NBC

Blue Order Solutions AG has been selected to provide Digital Asset Management to NBC during the network's coverage of the 2008 Beijing Olympic Games. The announcement was made by David Mazza, Senior Vice President, Engineering, NBC Olympics and Dr. Frank Rauch, Chairman, Blue Order Solutions.

Augmenting the services provided to NBC for the Games in Salt Lake City, Athens and Torino, NBC had challenged Blue Order to enhance their enterprise Media Asset Management platform Media Archive in order to provide NBC with a "Highlights Factory", enabling NBC's coverage of the Beijing Olympics via Online, On-Demand and Mobile services. Distributed and replicated over two locations – China and the USA – Media Archive will import content ingested via Omneon Media Deck, logs created in NBC's OPIS logging system, and statistics data received from IDS. US based editors will select recorded events and will top and tail those for re-runs or subclip them to create highlights packages. The defined packages are then forwarded to distribution, including both the transcoded media and the timeline related metadata.

Mazza said: "Olympic fans will have access to approximately 2,200 total hours of live streaming video coverage on NBCOlympics.com. In addition, NBCOlympics.com will also feature approximately 300-400 hours of clip based Olympic Highlights, Rewinds and Encores. Blue Order's Media Archive will be instrumental in rapidly selecting, editing, and preparing packages for distribution to our new media outlets."

In China, the Highlights Factory will record up to 40 streams in SD and 1 stream in HD. In the USA, additional 2 SD and 5 HD channels are available for ingest. Proxies, keyframes and metadata will be fully replicated between both sites. China high res material selected for re-use in New Media is transcoded to long GOP MPEG and subsequently transferred to the USA for packaging to the various distribution channels. To enrich the online experience, Media Archive also includes relevant pieces of selected metadata timelines (manually created logs and IDS sports statistics) into the delivery package submitted to downstream processing.

Visit www.blue-order.com.

Linear Acoustic Gives NBC Sound an 'Upmix'

Linear Acoustic has been selected to provide its UPMAX:neo 'upmixers' featuring DTS technology to NBC during the network's coverage of the 2008 Beijing Olympics, Aug. 8-24. The announcement was made by Bob Dixon, director of sound design, NBC Olympics, and Tim Carroll, president, Linear Acoustic.

NBC Olympics is offering all of its Beijing Olympic Games programming in HD with 5.1 sound. When content can't be broadcast live and is recorded or edited through a system without enough channels for 5.1 sound, the UPMAX:neo will provide the upmixing capability critical to maintaining the 5.1 sound field.

According to Bob Dixon, "The quality of 5.1 sound brings television viewing to a whole new level of enjoyment, adding another dimension that engages viewers in programming. If we were to shift between 5.1 and stereo audio during our broadcasts, our digital viewers would experience quite a shock as sound collapsed to the front wall. By providing very good 5.1 sound quality, the Linear Acoustic UPMAX:neo upmixer will allow us to incorporate prerecorded or edited stereo content into our broadcasts without interrupting the continuity of the viewing experience. For those listening in stereo, the UPMAX:neo ensures that downmixed audio also sounds its best."

The UPMAX:neo provides the Linear Acoustic UPMAX algorithm along with a special broadcast version of the DTS Neo:6 algorithm. DTS Neo:6 expands the palate of upmixing choices and allows the creation of a natural surround sound field with precise localisation of sound elements.

The Linear Acoustic UPMAX:neo system will be in use at virtually every Olympics' venue involved in live broadcasting and at the NBC Olympics broadcast center in audio control rooms, edit rooms, and in the quality control area as a monitoring and troubleshooting tool. More than 30 units will be installed for the network's coverage of the 2008 Olympic Games. The UPMAX:neo will allow audio engineers to analyze the quality of incoming stereo feeds, whether for stereo broadcasts or for upmixing to 5.1 audio. The systems will also down-mix audio, yielding stereo sound comparable to the stereo audio originally fed into the system.

Visit www.linearacoustic.com.

Media Students Train on Thomson for Beijing

As it has for every Olympics since 1984, Asbury College, in Wilmore, Kentucky, will send a professionally trained contingent of students to Beijing, China to help international broadcasters televise the 2008 Games. The school will send 56 students enrolled in its Media Communications department to China, who have been training on professional broadcast equipment from Thomson and other vendors since 2005.

Asbury's technology savvy Media Communications department, which produces a variety of sports and entertainment telecasts on and around the surrounding region, is now building a new 40-foot HD-capable truck; complete with a new Thomson Grass Valley Kayak HD 250 switcher.

The new truck, which will hit the road in August and begin producing a variety of local events that will air on the local cable TV system, will be used to train students for the 2010 Winter Olympic Games

in Vancouver, BC, Canada.

"This year's students will begin leaving for Beijing on July 15 while others will be ready for the start of the games on August 1," said Jim Owens, Chairman of the Asbury College Media Communications department.

Asbury College is the only school in the U.S. in which its junior and senior level students work in actual paid entry level professional broadcast positions for various broadcasters at the Olympics. They have done so for nine Olympic Games.

In support of commercial broadcasters, Asbury College students perform a number of tasks, from footage to video and audio editing to operating cameras. Unlike other college volunteers, the Asbury students — who are trained by Asbury College faculty who have worked numerous Olympics games between them — are paid for their work with the European Broadcast Union, Canadian Broadcast Corp., the host broadcaster, and others. The Asbury College Media Communications department currently operates two Thomson Grass Valley Model 200 switchers, one in a production control room attached to its on-campus television studios and another on board a 24-foot mobile production truck.

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NBC Audio Takes DiGiCo for Smaller Venues

DiGiCo UK has been selected to provide several DS-00 digital consoles to NBC during the network's coverage of the 2008 Beijing Olympics from Beijing, China, beginning August 8, 2008. The announcement was made by Dave Mazza, Senior Vice President Engineering, NBC Olympics and James Gordon, DiGiCo Managing Director. The DiGiCo consoles will support NBC's coverage of basketball, boxing and indoor volleyball.

Bob Dixon, Director, Sound Design & Communications, NBC Olympics, chose the DiGiCo consoles for their small footprint, expandability, sonic quality, and cost. According to Dixon, the three DS-00 consoles will each be outfitted with expanders to handle a total of 40 mic/line inputs, 32 analogue line outputs and 64 AES inputs and 64 AES outputs.

"We've had to change quite a bit this year technically," explains Dixon. "In previous years, NBC was using a hybrid of both SD and HD, often with stereo or up-mixed audio. But, with the 2008 Games, it's the first time we're - broadcasting all Network shows - in high-definition with six discreet channels of audio. We're covering about seven venues on our own, taking some of the feeds from the host broadcaster, but then adding our own cameras and mics to give it our own perspective.

"In previous years, NBC Sports used consoles that were 11 mono inputs, 3 stereo inputs and 8 output busses. Starting in Athens in 2004 and continuing in 2006, NBC went to using two of the consoles grouped together. With DiGiCo, NBC is adding more tape machines, more cameras and the 5.1 audio which creates big change in demand."

Visit www.digico.org

Olympic Village Exclusive for Eurosport

Eurosport Asia has received approval for Eurosportnews, its 24-hour sports news channel, to be the only international sports channel available at the Beijing Olympic Village. The village will be home to more than 16,800 athletes, coaches and sports officials during the 2008 Beijing Olympics, as well as 7,000 journalists.

Scheduled to open on July 27, 2008, the athlete rooms are equipped with network and closed-circuit TV programs, including the international Eurosportnews channel.

Eurosportnews was first granted landing rights in China in 2002, and is also available on cable, digital, IP and satellite platforms in 15 countries in the Asia-Pacific region.

Eurosport also provides a local language sports news website in China at http://eurosport.sohu.com

NDT Links Wireless Cameras for Torch Relay

NDT has been providing Link wireless camera systems and 5w Repeater solutions to local TV stations in China so that they can transmit live coverage of the Beijing Olympic Torch Relays. The set ups vary and have included fixed, mobile, and airborne coverage.

NDT group is a distributor and system solution provider in the broadcast, telecommunication and other professional industries in China.

The Olympic flame was lit in Olympia on March 24, 2008. After the handover ceremony, the Olympic torch arrived in Beijing on March 31, 2008. It has relayed through chosen cities across five Continents, finally arriving in Hong Kong on April 30, 2008. The next stage of the relay commenced in Hong Kong on May 2, to pass through 115 cities on route to its final destination, Beijing on August 8. The torch relay will eventually be covered by 33 different TV stations all around China.

I-Movix Extreme Slo-Mo for Games

I-Movix has announced that SprintCam Live V2, its extreme live slow-motion solution, has been chosen for the Beijing Olympics. For a variety of events, SprintCam Live V2 will provide extreme slow-motion coverage in HD at up to 8000 frames per second with instant replay.

Launched in 2007, SprintCam Live delivers a combination of extremely high frame rates with the instant replay capability essential for live broadcasting, together with real-time image controls. Host broadcaster Beijing Olympic Broadcast (BOB) will deploy and operate SprintCam Live systems in mobile units located at the major Olympic venues. Using Photron cameras and Fujinon lenses, SprintCam Live provides high quality of imagery in both SD and HD (720p and 1080i). SprintCam Live's operator control panel (OCP) provides real-time control of image-quality settings including gamma, knee, white balance, and black balance.

SprintCam Live V2 is easily integrated into a mobile broadcast setup and can be used as a stand-alone solution. SprintCam Live V2 comprises a camera, a camera control unit (CCU), an OCP, and a slow-motion remote control. Installation and operation are quick and simple; directors, cameramen, and production team require virtually no training. *Visit www.i-movix.com*

Axon's Synapse Reaches New Heights

On May 8 2008 CCTV, China's biggest television station and this year's host broadcaster for the Olympics, broadcasted live HD the carrying of the Olympic torch to the top of Mount Everest (Qomolangma peak).

CCTV used its brand new HD fly case produce system for this event comprising of AXON's modular infrastructure system Synapse. Amongst all other Synapse HD video and audio processing modular products, the modular multi-viewer (HQW200) was used for this unique broadcast. The multi-viewer is built by combining multiple HQW200, AXON's 4 channel 3Gb/s-capable multi-viewer (quad split). The modular nature of Synapse allows for building up to a 42 channel multi-viewer in the Synapse 4RU frame SFR18 (32 channels in the 2RU SFR08 and 16 in the 1RU SFR04). Because of Synapse's modular concept a multi-viewer can be combined in the same housing with other Synapse modules. One reason for CCTV's choice for AXON's Synapse is its space saving and flexibility (one platform for all signal processing).

Furthermore Synapse users can simple add a multi-viewer to their existing frames. Another feature of the Synapse multi-viewer is the low latency and the preset based position of all inputs via dedicated setup software Cortex.

Visit www.axon.tv

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post PRODUCTION

FSM Moves to Second BaseLight

FSM has combined its 4K NorthLight Film Scanner with a second BaseLight data grading system on site at their premises in Northbridge, Sydney.

While other systems use HD video tape from third party suppliers as a means to transfer ready for grading, effectively a Tape to Tape process, scanning at FSM takes the end product to a whole new level. No more HD compression or potential for clipped highlights and crushed blacks. Scan at 2K or 4K with true colour and image detail with no losses. Plus the power and flexibility of one of the most advanced non-linear data grading system. In two suites, so you can work in a Digital Cinema Theatre or TV Commercial Suite.

FSM offers up world-class colourists in Brian 'Crash' Carlucci, Billy Wychgel, Tristan la Fontaine and Heather Hay.

"FSM is applying the knowledge gained from the last two years doing scanning for feature films and moving

>> >> FSM colourists Brian 'Crash' Carlucci, Heather Hay and Billy Wychgel.

that workflow into commercials" says Managing Director Rick Schweikert. "Negative is scanned on site with no compression, data files conformed for grading or material can be loaded from RED camera or from HD camera tapes."

And no expensive HD SR stock. Data files are passed across the FSM high speed network without ever touching a tape machine, a true tapeless environment. And with two telecines available on site, early morning rushes are easily done so editors and their clients can always get a flying start to the day

"The FSM FilmLight process incorporating the NorthLight scanner, TrueLight calibration and BaseLight grading insures the organic look of the negative is preserved with no video artifacts. It is the purest system enabling greater control and consistency of the image," says Mark Wareham ACS, DOP Clubland.

"FSM has invested in the right equipment and the right personnel and have the creative talent to match. This mixture ensures the clients get what they want – without compromise. The pipeline between our two facilities is transparent," says Pete Williams, Head of Digital Imaging – Weta Digital.

Edius Brings Good Karma

A new video called "Earth Hour", designed to help the fight against global warming, has been recognised with a 2008 MTV Australia "Good Karma" Award. The video was produced for the New South Wales government and edited with the latest version of Grass Valley EDIUS editing software from Thomson on a PC workstation.

The 2008 MTV Australia awards were presented live on air on Saturday April 26, and streamed live online at http://www.mtv.com.au/. The 2.5-minute video was nominated for the Good Karma award from among four other entries and was chosen as the clear winner based on votes from the general public and MTV Australia viewers.

The "Earth Hour" video was shot and edited in standard definition by Anton Strauss, owner of Antons Video Productions, who has produced many videos for the New South Wales government on the EDIUS SP

>> >> Anton Strauss, owner of Antons Video Productions.

package. The video, which is now available online for viewing at www.nsw.gov.au/, has also appeared on the government's own digital television channel that airs in New South Wales on Digital Channel 45.

"Earth Hour" began as a Sydney initiative, but was observed by many Australian cities on 31 March 2007. The goal was to reduce electrical consumption and help the fight against global warming by requesting that businesses and individuals switch off their lights and other unnecessary electrical devices from 7.30pm to 8.30pm on that day.

To create the award-winning video, Strauss set up his camera for several hours throughout the day on March 31. At one point, he devised a time-lapse sequence and another scene as the sun set (manually adjusting the camera iris to adjust for the decreasing light) and the city of Sydney went dark. To create the time-lapse sequence in EDIUS - just before the lights of the city were turned off -Strauss took two hours of skyline footage and boats quickly travelling in the harbour and sped up the footage 2500 percent, or 25x real time, then went back to normal speed to show the dark city.

Stop Motion Pro Wins Innovation Award

Stop Motion Pro has won a national iAward for its Stop Motion Pro software for stop-style animation. The award will see Stop Motion Pro compete against innovators from the entire Asia-Pacific region in Indonesia later this year.

Stop Motion Pro swept all before it in the Media and Entertainment category of the national iAwards, which were created by the Australian Information Industry Association (AIIA) to recognise innovation in technology.

Stop Motion Pro has developed a software package which enables users to create stop motion style animation. The technology provides the capability to create a full stop motion animation clip for film or TV, allowing users to add audio and other features.

Stop Motion Pro will go on to represent Australia at the Asia Pacific ICT Awards (APICTAs) which will be held in Indonesia later this year, and will compete against the national winners from 16 other Asia Pacific economies including China, India and Korea.

Visit www.stopmotionpro.com

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Cutting Edge on a Roll with EditShare 'Cart'

When Baz Luhrmann recently needed to re-shoot some scenes for upcoming feature film "Australia" at Fox Studios in Sydney, he wanted a system of being able to instantly review newly shot material. He also wanted to use video from a viewfinder split to be edited into already finished scenes, the idea being to review how they would match, or allowing them to instantly alter the performance or shoot to make sure of a seamless insert.

The bigger problem was they needed to do this very quickly and didn't want to interrupt the actor's performances by constantly stopping to review, or by the noise created by carting what is normally a large editing suite and storage device to the set. Their post production equipment suppliers, Cutting Edge, were called in with a few days notice with the request.

>> >> Ian Richardson and Rob Puru, (Cutting Edge senior technicians and designers of the unusual cart) and Aaron Downing, Post Executive 20th Century Fox.

Cutting Edge had created a similar workflow for last year's AFL Grand Final broadcast, whereby they used an EditShare Field unit as the collaborative storage hub for two Avid edit suites. This allowed then to create high-quality content while capturing on the same device at a very low cost.

For "Australia" they supplied two Avid Media Composer systems connected to an EditShare Field portable collaborative storage device. It was rigged up in a very unusual mobile editing 'cart' that allowed capture, edit, and instant replay of scenes. It came complete with video ingest, 2.2TB of storage, and a professional monitor for review by the director. This allowed for critical assessment of the new scenes or actors performances right on the studio floor.

An almost silent setup that is mobile, the system can allow a number of Avid (or FCP) editors working at the same time to edit while capture, review, and all on one mobile platform capable of being wheeled from set to set!

The same Cutting Edge tech team is also responsible for the first ever implementation of EditShare storage with Grass Valley Bones Dailies systems at their Sydney and Brisbane post-production facilities.

Using an off-the-shelf 20TB SATA-based EditShare system with 10 Gigabit Ethernet connectivity, 2K DPX files are captured at up to 30fps, or uncompressed 4:4:4 RGB HD and other high definition requirements at frame rates that match the needs of the DI workflow.

Previously it was unheard of for a networked storage system designed around a NAS architecture to be able to come anywhere remotely approaching these bandwidths. Previously, only fibre channel-based SANs were used in DI workflow.

10-Gigabit Ethernet is non-proprietary technology and its advantages include: no software license fees for each connection; cost effective hardware, switching, and cabling; and 33-metre cable distances over CAT6 cables, or 100 metres over CAT7.

The storage systems have most recently been in daily use on "Wolverine" at the Entertainment Quarter Fox Studios Sydney, and with various projects in Cutting Edge's Brisbane office.

Thomson Gives Dailies a Cutting Edge on Wolverine

Leading Australian post house Cutting Edge has been delivering high quality dailies on the 20th Century Fox feature Wolverine to both sides of the Pacific, thanks to the Thomson Grass Valley Bones Dailies workflow tools. While the film has been shot in Australia studio executives in Los Angeles have been kept up to date via Bones Dailies software.

Designed for managing rushes on a movie project, Bones Dailies controls the Spirit DataCine for film scanning at up to 4k resolution. In HD or 2k the Spirit under Bones Dailies control can ingest material at up to 25 percent faster than real time. It synchronises the picture with sound and, in conjunction with other Bones components, allows a color correction pass with the metadata captured using the ASC color decision list (CDL) format to form the basis of the final grade later in the post cycle. Bones Dailies is able to output in standard definition or HD up to HDCAM SR 10 bit 4:4:4 quality.

In January 2008, Cutting Edge installed two Bones Dailies systems as part of a major upgrade of their post production facilities in Sydney and Brisbane. Only days after installation, Bones Dailies was put into action on the feature film Wolverine for 20th Century Fox.

According to John Lee, president and founder of Cutting Edge, "At the end of a session, fully logged and synchronised dailies are ready to be played out from Bones within 10 minutes of the final lab roll being captured, with Bones performing logging and sound syncing on one roll at the same time as the colorist is grading the next. This is a huge savings in time and effort on the part of the editorial team, who are given DNxHD media and full metadata immediately after our first Bones playout pass."

Bones Dailies divides the workflow of making dailies into five logical processes: audio ingest and logging, image ingest and logging, sound synchronization, color grading, and finally playout for multiple deliverables. On Wolverine Cutting Edge was asked to make two different versions of each day's dailies: a "print all" version for editorial and production, and a "circle takes only" version for the studio executives in LA. Without Bones Dailies, creating the second version would have meant loading the print all version into a non-linear editor, cutting the select takes and conforming the edit back out to tape.

"Thanks to Bones Dailies, Cutting Edge was able to create a first generation HDCAM SR circle takes only tape to send to the studio with synchronized audio, specific burn-ins, masking and watermarks," said Aaron Downing, Post Executive for Fox.

Bones Dailies can operate as a single seat system on locally attached storage or as a multiple seat system on a shared access SAN. It uses specific algorithms developed inside Thomson's Corporate Research Division for automatic detection processing of audio slate closures during ingest of each Lab Roll. Bones Dailies can also perform the colour correction. It uses non-destructive colour correction techniques - GPU powered - according to the ASC's CDL grading schema, or as an alternative way of working you can use an external colour correction device to 'bake in' a grade during image ingest.

Recent enhancements include scaling between 2k and 4k resolution files, and burn-in displays of timecode, keycode and other metadata. Thanks to a co-operative development between Thomson and Digital Rapids, Bones Dailies can now be used to deliver dailies at any resolution over IP circuits to anywhere in the world.

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Kicking Goals with Resolve

By Ben Eagleton, BEAN

HERE AT BEAN in Sydney, we work mostly on high end television commercial work. Two recent examples are the latest Carlton Draught Beer ad, which was directed by Paul Middleditch of Plaza Films, and another celebrating the 150th anniversary of the AFL, (Australian Football League), explaining how most of the things we value in society today, from TV to the light bulb, were invented specifically for Australian Football, (not well-known, but apparently true!).

In the Carlton ad, (which is making quite an impact – so to speak) a giant metal replica of a glass of beer falls out of a plane, throwing out skydivers who change into various formations and ending with houses and cars being destroyed by the glass of beer as it crashes to earth. It's all very tongue in cheek. Making the ad required the combination of a lot of elements: green screen, scale models, life-size part models, computer graphics, and background and foreground plates.

To kick off the project, we scanned all the rushes using a Spirit 4K Datacine and simultaneously produced an SD version on digital betacam for offline. After offline approval we ingested the selected data into a da Vinci Resolve for grading. The agency creative's at Clemenger BBDO flew up from Melbourne and we spent six or seven hours grading the first few layers, a kind of pre-visualisation grade to give everyone an idea of the look of the finished commercial. A standard definition version of these conformed layers was then recorded out to digital betacam as a guide for the agency and compositors. We stored these grades on the Resolve then sent a relatively flat, balanced grade in HD across town to Animal Logic, which specializes in effects and compositing. They are frequent collaborators with us since BEAN specialises purely colour grading. The balanced HD grade gave the compositors at Animal all the latitude they needed to complete their work. They worked on the project for about 10 weeks, which gives you some idea how big it was.

Once Animal Logic had finished their work, the ungraded commercial was sent back here for final grade, where we reaped the benefit of the hours initially spent setting the look. All I had to do was use the Resolve to quickly to re-apply the grades set weeks earlier, including any re-framing. The process and the results were seamless because we were working from data. The film had only ever been scanned once so naturally there had been no colour drift and no dirt or weave added, problems that would have been inevitable with the repeated film handling that accompanies telecine work. The job was a full HD finish and was recorded back to film for its cinema premier.

>> **Before the retro treatment.**

>> **Echoes of the 'past'.**

I appreciate a lot of things about working in a pure data environment, but the main one is that it eliminates the slightly painful inefficiencies of working live from a telecine, freeing us to focus on creativity. For one thing, the tool set we have is vastly superior and the work flow is so much more user and client friendly. Also, we've eliminated the guesswork that goes with working in a linear way, those unhappy

>> **Too much beer can affect your driving.**

surprises that come when you first see the commercial conformed. Because the Resolve system includes a huge toolset for the grading itself – unlimited windows and tracking, for example – we can refine, and refine and refine, consistently producing our best work. From one shot to the next, we are a lot tighter than we were working in a telecine environment when the only reference we had was a still frame.

While my partner Andrew and I have more than 35 years in the business between us, BEAN itself is only a year old. In making the transition to a purely data environment and to working in a nonlinear way, we estimated we could work 20 to 30 percent faster than we did before. In fact, this isn't how it's turned out. The truth is that we tend to either work 30 to 40 percent faster delivering the same level of work as before, or we spend the same amount of time and do a much better job. As you can imagine, this has made us very popular with our clients. They recognise that now they are paying us for time spent grading - what we do best - rather than time spent spooling film and changing rolls on a telecine.

With the AFL history retrospective commercial, we had to work with a variety of formats from various sources including 35mm and 16mm film, digital Betacam stock footage, QuickTime's and digital stills. Again, we scanned the material and then ingested data based on the EDL sent to us by the editor, [Peter Witmore from The Editors]. From this, we conformed the project on the Resolve and graded it on a single time line. Working closely with the D.O.P. [Steve Arnold] we created some very convincing, authentic, period looks. It's great that the clients can walk in to the Resolve suite and watch content shot in the 70s, 80s, 90s and today – all on the same timeline, and all formatted and outputted to their required format. This just isn't possible in a traditional suite.

It used to be that 50 percent of my job was the technical skill required to drive a telecine. Working with Resolve in a data environment, you still need to be technically on the ball, but now we can concentrate much more on the creativity. Not to put too fine a point on it, what we've been able to do using the da Vinci equipment is to change the industry over here. Now we've got new ideas in the pipeline about making our system even more flexible and creative. We will always be looking for new challenges, ways to do things better. Our clients love coming here because they know that we are all about the pictures, about fulfilling their vision.

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Rising Sun Hits 50

Rising Sun Pictures [RSP] has increased its filmography to 52 features, with the recent awarding of a number of film contracts. Since its launch in 1995, RSP has provided visual effects to feature film audiences through collaborations with studios in the US, the UK and Australia.

The new business contributing to this landmark figure include: The Chronicles of Narnia: Prince Caspian [Walt Disney Pictures/Walden Media]; X-Men Origins: Wolverine [Twentieth Century Fox]; Frank Miller's The Spirit; Independent Australian film Broken Hill; Bruce Beresford's Mao's Last Dancer; and Bollywood film Love Story 2050.

From last minute help to deliver a broad range of shots for Prince Caspian, to pre-visualisation, on set supervision and effects design for Wolverine, to a complete sequence design for the climactic chase through futuristic Mumbai in Love Story 2050, the work has provided artists with many technical and creative opportunities. Of note is RSP's ability to continue to draw footloose packages of work to Australia as seen with Speed Racer, The Spirit and Prince Caspian.

RSP's recent work has been seen on Australian screens with The Wachowski brothers' Speed Racer and Get Smart (Warner Bros) while August will see the release of Dreamworks' The Ruins. Additionally, RSP continues to work on Harry Potter and the Half-Blood Prince and Baz Luhrmann's Australia out of its Adelaide and Sydney studios.

RSP's work on The Ruins being selected for the SIGGRAPH 2008 conference in Los Angeles. CG Supervisor Carsten Kolve will present a paper on the creation and control of computer generated mass organic systems.

Also recently announced is the appointment of Rudi Holzapfel to the role of Chief Operating Officer. With 20 years experience in the UK, USA and Germany, his previous credits include Alexander, Troy, Batman Begins and Tomb Raider II. He also possesses a Masters of Management from London Business School. Rudi will be based in RSP's Sydney studio.

VIEW TO A KRILL

The recent OmegaGen TVC came about following conversations with Saatchi & Saatchi who outlined a 3D animation TVC they wanted for OmegaGen. The Lab had previously undertaken similar work creating the Arnott's Shapes and Samsung PAVV TVCs.

Daniel Bavell, the Commercial Studio character designer responsible for the creation of the sword swinging Antonio in the current Arnott's Shapes commercial, was tasked to design the 'Krill' and his friend, the 'big blue fish'.

From storyboards and characters the team moved on to blocking, positioning the characters in the scenes that Animation Director Murray Griffin

had laid out so the agency could agree to timings and animation. Commercial Studio Creative Director Garry Jacques then addressed the secondary design of the underwater background as this had to be ready ahead of the TVC due to print deadlines.

The TVC was composited in Inferno by Eric Schaechter, one of the Lab's recent star recruits from Germany. Schaechter worked very closely with Jacques to put all the elements in place including a motion distortion effect that came about when the main character moved. Schaechter also had to take into account elements such as ink 'splats' that were shot on Mini DV.

According to Jacques, "Eric and all the team involved in this project did an excellent job. It was really a mixed media TVC where we had low res images, high res ones, painted backgrounds and 3D animation although this was far from a traditional 3D animation job."

To view the OmegaGen TVC go to: http://www.thelabsydney.com.au/?pg=2304

DCI Mastering with Clipster at Park Road

Since early May, DVS's workstation Clipster has been added to the workflow at Park Road Post Production. The DVS system handles DCI mastering in real time and enables the generation of secure data packages. This allows Park Road to send sensitive film material securely and easily to its international customers.

Park Road is using the DVS workstation to generate encrypted DCI-specified DCPs (Digital Cinema Packages), as well as an extra KDM (Key Delivery Message) that allows the recipient to read the digital film data. The KDM can only be read by the certified recipient, to whom it grants access to the digital film created by Park Road.

Ian Bidgood, Technical Director at Park Road, said "With relation to DCI mastering, we were looking for a system that was capable of editing the timeline of the composition play-list with ease, we found that Clipster was able to perform this task along with more than was expected with regards to DCI mastering.

"After receiving Clipster our operators were performing their first job within 24 hours. We found that the GUI interface is very intuitive, and along with the operation of the system - made it all come together with ease. Its multiple types of video inputs and outputs, along with Spycer software for DPX files has helped to streamline our workflows within our DI department."

storage & ASSET MANAGEMENT

HBO Asia Manages with Pharos, Omneon

BroadcastAsia2008 - HBO Asia has selected Pharos and Omneon to provide an infrastructure upgrade that will enable a fully file-based workflow for its Singapore facility.

A combination of Omneon MediaGrid active storage and ProXchange transcoding with Pharos Mediator content management and Playtime automation will allow HBO Asia to achieve greater efficiency as it delivers programming to a base of 31 million subscribers across 22 countries in Asia.

"We have a good working relationship with Omneon and have confidence in the reliability of the company's Spectrum media server system," said Vincent Teo, Senior Vice President, Technology and Operations of HBO Asia. "By adding MediaGrid active storage and deploying advanced media management and automation from Pharos we have a solution that delivers an efficient workflow and meets our requirements for cost-effective easy expansion to support the growth of our Asian operations."

HBO Asia will incorporate a 60-TB MediaGrid active storage system from Omneon as a central storage platform along with new Playtime automation and Mediator content management systems from Pharos to deliver 12 SD channels to air. The Singapore-based media company will also use an Omneon ProXchange high-performance transcoding system to support its media repurposing operations. The system will be in operation in the last quarter of 2008.

>> **Pharos Mediator content management system.**

"HBO needed a more efficient workflow to ingest and manage content for their new sophisticated 3-D presentation style and an automation solution to better manage complex secondary events, subtitles, multiple languages, and local ad breaks," said Russell Grute, director of marketing at Pharos. "Mediator content management and Playtime automation in combination with Omneon storage provide a complete, tested package able to handle the demands of such a large-scale operation."

Pharos Mediator will streamline HBO's workflow and provide media logistics for traffic, library, and ingest operations. Mediator will manage all transfers between the Omneon storage subsystems and integrate the existing data tape library to provide end-to-end media lifecycle management. Mediator also supports future operations like screening, compliance editing, and approvals, and could manage future HD and VoD services.

In addition to its MediaGrid purchase, the Singapore-based media company has upgraded its existing Spectrum server with increased system bandwidth and six additional playback channels to be used as squeeze channels.

To support both HBO and its other customers in the region, Pharos is to establish a regional operation in Singapore. The new facility will initially be situated at the New Tech Park in Lorong Chuan and will be managed by Patrick Keys. Along with co-founders Roger Heath and Spencer Rodd, Patrick was one of the original members of the Pharos team. Patrick initially worked as part of the Pharos Playtime automation software development team and, is a veteran of many international Pharos projects including CNN Headline News in Atlanta, and Network 7 in Australia. He also established the international support operation at Pharos Reading UK headquarters and, has developed customer training programmes for Pharos installations including Technicolor, Viasat and Globecast. Patrick will be working to build a local Pharos sales, engineering and support team in Singapore.

Calls for MPEG DRM, eXtensible Middleware

At its recent 84th meeting, MPEG issued a Call for Proposals for MPEG eXtensible Middleware (MXM) to launch the standardization of new technologies for enabling the easy design and implementation of media-handling value chains. Specifically, the targeted value chains are those whose devices interoperate either because they are all based on the same set of technologies (especially MPEG technologies) or are accessible from the MXM middleware.

In its continuing effort to define and support digital rights management, MPEG also issued a Call for Proposals to standardise a Media Value Chain Ontology focusing on the aspects of the management of rights. An ontology can be regarded as a representation of the terms in a vocabulary and their corresponding relationships. Examples of applicable value chains are personal and commercial movies that include not only the movie itself but also related information like movie producer, movie owner, rights and limitations to modify the movie as well as personal notes available to a certain user group. An applicable example usage of a value chain ontology is the automatic checking of rights of a performer. The new ontology will initially focus on the areas of Intellectual Property, Authorization Models, User Role Description, Context Description, and Social Tagging.

At its 84th meeting, MPEG also completed the standardisation of the ISO/IEC 15938-12 "MPEG Query Format". Essentially, the MPEG Query Format (MPQF) defines an XML-based query language for the format of queries and replies exchanged between clients and repositories in a distributed multimedia search and retrieval environment. Extended functionalities for service discovery, selection and capability description are also key features of this standard.

Another feature is its ability to define multimedia queries through a combination of expressive information (e.g., query-by-example, query-by-feature-range, query-by-spatial-relationships, query-by-temporal-relationships, etc.) and XML data retrieval. This new query format is decoupled from other metadata standards and provides support for any XML based multimedia metadata description.

Visit www.chiariglione.org/mpeg/hot_news.htm

DRM FOR WINDOWS

Widevine Technologies, a provider of multi-platform DRM and digital copy-protection systems, has enhanced its Widevine Cypher system to protect content delivered to Microsoft Windows Media Player versions 9, 10, 11, and Silverlight versions 1 and 2. This gives users the ability to securely deliver content in Windows Media, Silverlight and Adobe Flash environments using a single content protection system.

Widevine's Cypher DRM client secures delivery and storage of content on Macs, PCs and Linux platforms and post-decryption where most piracy typically occurs. The client includes digital copy-protection technology, which further monitors, detects and responds to the hundreds of screen scraping and recording utilities available on the Internet. Many of these utilities can record content from a consumer device and store it as a downloadable file on the Internet.

Visit www.widevine.com

LSI CERTIFIES SNS

Studio Network Solutions (SNS), a premier provider of post-production SAN systems for the media and entertainment storage market, announced that its Ellipse Enterprise HBA has been certified for use with LSI storage systems and Mac OS X.

The Ellipse Enterprise fibre channel HBA (Host Bus Adapter) from SNS enables Macintosh servers and workstations to take full advantage of the fault tolerant, multi-pathing I/O and failover/failback features found in Redundant Disk Array Controller (RDAC)-enabled storage systems from LSI. The Ellipse Enterprise HBA is available in single-, dual-, and quad-port configurations of PCIe or PCI-X. *Visit www.studionetworksolutions.com*

LACIE BOOSTS BLU-RAY BURNING

LaCie has announced that is has doubled burn speeds for it d2 Blu-ray Drive (now up to 4x). The drive records, rewrites and reads 25GB or 50GB BD-R (recordable) and BD-RE (rewritable), as well as DVD±RW DL and CD±RW.

The LaCie d2 Blu-ray Drive comes equipped with dual FireWire 400 and USB 2.0 interfaces, and ships with Roxio burning software, either Easy Media Creator for Windows, or Toast Titanium for Mac. *Visit www.lacie.com*

ADIMEX OPTIMISES SANMAN

Adimex has announced it is now shipping SANman storage systems incorporating Infortrend's EonStor (ES) S16F 4G-FC-to-SAS RAID subsystems. These subsystems are specifically AV-optimised for video software, IO cards and SAN software and have recently been certified by Infortrend to work with Final Cut Pro video editing software, AJA and Black Magic I/O cards, and Tiger Technologies MetaSAN software.

The 16-bay Fibre-Channel SANman storage solutions are typically supplied with 6TB or 12TB of usable storage and can be configured to operate at RAID levels 0, 1(0+1), 3, 5, 6, 10, 30, 50, and 60. They are suitable for various applications including broadcast video, security and medical imagery. They are built and configured locally by Adimex.

Infortrend is a leading provider of RAID subsystems that support all storage interfaces including SCSI, iSCSI, Fibre Channel, SATA and SAS. Infortrend subsystems are designed for enterprise-level stability and performance and are ideal for high quality, high volume production environments.

Visit www.adimex.com.au

NEXT-GEN RAID FROM AVID

Avid Technology has announced the next-generation of its high-performance storage disk arrays - Avid VideoRAID ST and Avid VideoRAID SR. Available in a 5-drive tower (ST) or a 16-drive rack mount (SR) configuration, Avid VideoRAID ST/SR disk arrays support a wide range of Avid editing systems, including the recently announced Media Composer, Symphony Nitris and NewsCutter family of products, as well as third-party applications, via an industry-standard SAS (Serial Attached SCSI) interconnect.

The products provide the protection of parity through the use of RAID, which can handle multiple streams of uncompressed SD and HD media with ease and offer a capacity ranging from 2.5TB to 16TB per editing system.

The systems combine real-time performance, cost-effective SATA (Serial Advanced Technology Attachment) drive technology, and the security of fail-safe data protection in the event of a disk drive failure.

Unlike other RAID systems that may be unusable during a drive rebuild, Avid VideoRAID systems help customers keep up with the fast pace of digital content creation by maintaining full performance and data protection, while rebuilding the drives in the background.

Customers will also be able to take advantage of real-time playback of up to two streams of uncompressed HD on as few as eight Avid VideoRAID drives.

Additionally, Avid is offering all new VideoRAID ST and SR customers a three-year warranty on drive mechanisms and enclosures, providing advanced exchange of replacements parts at no additional cost.

Visit www.avid-australia.com.au

Transcoding on a Grid Computing Framework
- Simplifying the Delivery of Multiple Media Formats

By Simon Eldridge, Product Manager, Omneon, Inc

WITH THE increased move towards file-based workflows, transcoding has become an integral part of broadcast operations in order to allow content interchange between systems from different vendors, re-formatting for different internal purposes and creation of new formats for distribution on new platforms.

Traditionally, transcoding was the converting of video or audio material from one format to another, but now the term encompasses numerous content re-formatting functionality from converting the video or audio format from one to another, changing wrapper types, bit-rates, resolutions, converting between SD and HD standards, altering aspect ratios or even standards conversion between NTSC and PAL.

With a plethora of formats, wrappers and third-party applications, transcoding is something that must happen in practically all broadcast operations, but should it be a function that requires interaction? Surely the interchange of content between systems should be based on configurable rules based on what formats the receiving device can handle and what the most efficient format for the chosen use is. One thing is certain: with the explosive growth of file-based workflows and new media formats, the need for transcoding and the high levels of processing power it requires is only going to get bigger and more intensive.

Today it is possible to transcode multiple content streams simultaneously at faster than real time from within a single transcode application – provided that the application is harnessing the power of a Grid Processing Framework (GPF), or Grid Computer.

The grid processing framework is a new concept that is a derivative of grid storage systems. In the grid storage system that is currently commercially available in the broadcast industry, the basic storage building block is a ContentServer, which houses and manages a number of disk drives. Any number of ContentServers, along with some additional processing components, together form the grid storage system. Currently these grid storage systems are being deployed as centralized shared storage for large media facilities. In addition to improving a facility's workflow by allowing shared access to all material in the facility, grid storage also offers the benefit of easy expansion of storage space and bandwidth (see figure 1).

Beyond the advantages of flexible central storage, the grid storage systems also offer spare processing power that can be harnessed for other applications. The ContentServers are X86-based servers that run standard Intel processors and have a specific amount of system memory. These resources are used to manage the disks and files slices in storage, but there is more power available than required for storage management.

Through a software Applications Programming Interface (API), applications can use the spare processing capacity of ContentServers.

This is suited to computationally-intensive content processing applications as the ability to distribute this processing across a large number of grid nodes increases performance of the application.

There are a number of components to the GPF, each designed to provide a specific function within the framework – these functions include allocating ContentServer nodes to applications when they are requested, allowing foreign applications and processes to be launched on the ContentServers, and a sub-grid pool of processors within a grid storage system to process the media.

Two components key to the GPF are supplied by the application provider – the application controller, which is the core application utilizing the GPF, and the application process that runs on the ContentServer.

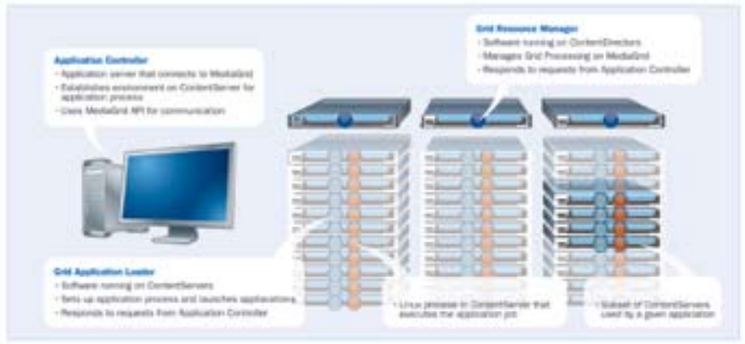
Content format conversion is traditionally a very computationally intensive task, and so the ability to spread it across multiple nodes in order to increase performance is a very attractive proposition. Simply put, transcoding was an obvious target application for use on the grid processing framework.

The transcode application described here is divided into two components – JobDirectors and JobScalers. Each of these is capable of initiating transcode jobs, and the JobDirector is also responsible for storing the job queue and managing the priorities of tasks. JobScalers are added to the system to increase processing capabilities for larger grid systems.

The JobDirector is the core component of the transcoding system. It is a server connected directly to the grid and runs the core transcoding software. Functionality includes the job management and prioritization application and the logic used to split, distribute, and join content throughout the grid. Content re-wrapping is also undertaken on the JobDirector. Each JobDirector is capable of addressing 12 grid nodes allowing a single transcode job to be spread across up to 12 individual processors.

When a task is received, the target file is unwrapped and split into smaller parts within the JobDirector based on GOP boundaries of the content. Each of these components represent jobs within the system master job queue. The JobDirector then distributes these jobs to each ContentServer available within the sub-grid assigned to the task. Each ContentServer converts the component it has been assigned to the destination format specified.

FIGURE 1
How grid processing works



>> >> Figure 1 - How grid processing works. Applications that utilize the GPF are able to spread content processing across all available ContentServers in systems thus enabling distributed parallel processing in order to achieve must faster results.

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The resulting file components are returned to the JobDirector, and the output file is constructed in the desired output format and wrapped in the wrapper format determined by the transcode rule. The JobDirector also checks the final output file and verifies the task is complete.

JobScalers, meanwhile, allow the system to scale up to support distributed processing of multiple files simultaneously, utilizing additional grid nodes that may be available. JobScalers process additional files in parallel to the JobDirector on a second set of up to 12 ContentServers.

Normally, JobScalers are assigned to use another set of 12 ContentServers so that they can process content with the same performance as the primary JobDirector, however, it is possible to add additional JobScalers to systems using just 12 (or less) ContentServers. In this scenario, the same pool of ContentServers are shared between the two transcode servers, thus enabling two simultaneous jobs to be processed, but reducing the overall performance of each individual job. In order to achieve the best balance as the system increases in size, it is best practice to allocate 12 ContentServers per transcode server, regardless of type.

This ensures that the overhead of job management does not impact on the overall performance of the transcoding tasks.

There is no limit to the number of additional JobScalers that can be added to a system, so very large grid systems may have many JobScalers, but only a single JobDirector is needed.

Besides the actually file processing, users need to be able to configure rules for how and when content should be processed.

Management software can be installed on any PC that has network connectivity to the system. With a simple to use interface operators can determine the exact specifications of the content to be produced with a transcode task.

Users can define transcode presets that can be used multiple times throughout the system. Each preset determines the parameters required to create the desired output format such as wrapper type, format, bit-rate, resolution and audio format. These presets can then be applied by dragging them to watch folders on the grid. When doing so, users select an output folder (also on the grid) where the transcoded content will be placed. Folder priorities

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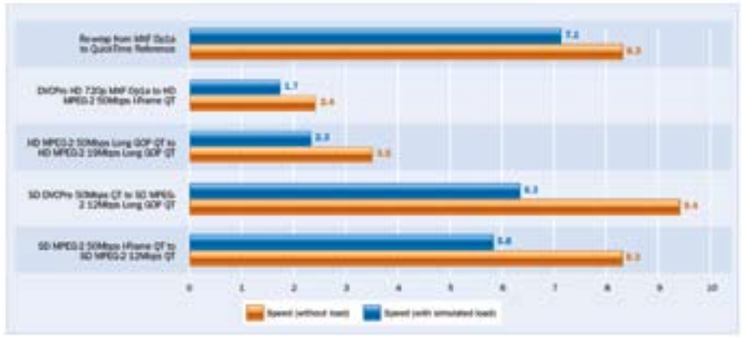
TABLE 1
Average format conversion speeds on a 12 ContentServer grid system using a single JobDirector

Input Format	Output Format	Average Performance (without load)	Average Performance (with simulated Load)
SD MPEG-2 50Mbps I-Frame QuickTime Reference	SD MPEG-2 12Mbps Long GOP QuickTime Reference	8.3x	5.8x
SD DVCPro 50Mbps QuickTime Reference	SD MPEG-2 12Mbps Long GOP QuickTime Reference	9.4x	6.3x
HD MPEG-2 50Mbps Long GOP QuickTime Reference	HD MPEG-2 19Mbps Long GOP QuickTime Reference	3.5x	2.3x
DVCProHD 720p QuickTime Self Contained	HD MPEG-2 19Mbps Long GOP QuickTime Reference	2.4x	1.7x
MPEG-2 50Mbps I-Frame MXF OP1a	MPEG-2 50Mbps I-Frame QuickTime Referenced	8.3x	7.1x

>> >> Table 1. Average format conversion speeds on a 12 ContentServer grid system using a single JobDirector. * Standard audio configuration is 2 x 2, which is 4 channels grouped as 2 stereo pairs. Simulated load is 10 Load Generators, each running one file read and one file write to MediaGrid from its RAM; aggregate file system I/O is~960 MB/sec.

FIGURE 2



>> >> Figure 2. Examples of the performance typically seen for some common transcode tasks. These examples are based on a standard 12 ContentServer system with a single JobDirector. Results are amount of time faster than real time (i.e., 8.3 is 8.3 times faster than real time).

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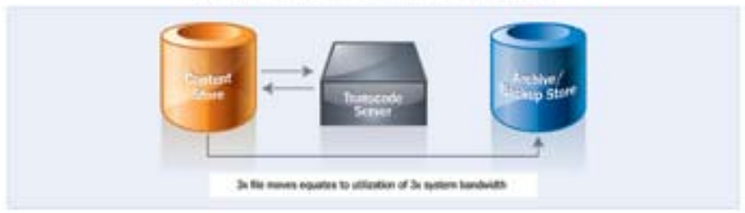
FIGURE 3
Traditional content transcode workflow and system bandwidth



>> >> Figure 3. Traditional content transcode workflow and system bandwidth utilization.

can also be set as normal or high. Multiple transcode presets can be applied to a single folder if incoming content needs to be transcoded to multiple formats.

Job status can be viewed through a web application. Users can navigate to the appropriate web address for the JobDirector or click through from the Manager application. The interface also provides information on the performance of each job with a simple value to represent how fast that job was processed in relation to the length of the input content. For example, if a 30 minute clip took 15 minutes to complete, the interface will report that the job was processed in 2x faster than real-time.

The integration of this transcode system with third-party applications is simplified through the use of standard file callback notifications. If configured to automatically transcode content when files are placed in specific directories, applications connected to the grid will automatically be notified of new content using the standard grid file notification API.

Transcoding functionality is often something that is controlled by a higher level application, such as media management or automation. For this purpose, an API is provided, allowing third-party applications to interact with all elements of the functionality previously described. This API is also presented via XML (eXtensible Markup Language) over HTTP (HyperText Transport Protocol) in order that integrated applications do not require any custom libraries or are limited to integration from a particular operating system or programming language.

Using the grid processing framework and the unique methodology of the approach described here, remarkable performance levels for transcoding are achieved – it is much faster than comparable systems that include third-party hardware.

But do the normal file access loads on the grid impact the transcode performance? In our tests, as would be expected, the answer was yes: under lab conditions with a simulated load, transcoding was impacted by up to 30%. Even under heavy loads the system was able to perform transcodes much faster than real time (See Table 1 and Figure 2).

The main advantage of building a transcoding application on a grid processing framework, as outlined above, is the ability to utilize multiple processors in parallel for much better performance than standalone solutions. Grid computing also makes the transcoding operation more resilient in that a lost computing node does not impact the ability to complete a transcode task as it would with traditional systems. While the loss of a node may impact the performance of the transcode if another node is not available to pick up the additional work, the job will still complete. With traditional transcode systems, if a processing server is lost, transcode jobs assigned to that server will not be processed.

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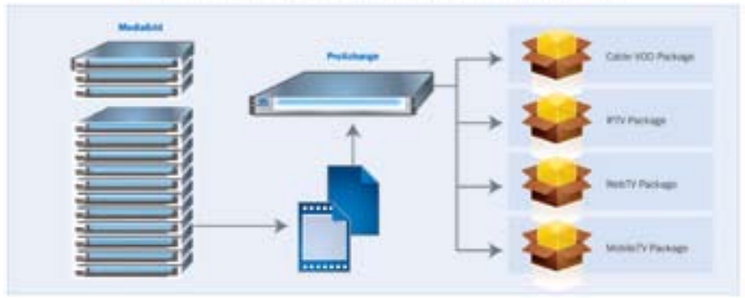
FIGURE 4
Content distribution workflow with transcode integrated to grid processing framework.



>> >> Figure 4. Content distribution workflow with transcode integrated to grid processing framework using ProXchange & MediaGrid.

The transcode servers connect directly to the grid network and access the content directly. Using the CPUs on the storage nodes directly for content processing means there is no need to move files to a dedicated content processing server. Other solutions require that the content be moved to the host server, transcoded and then moved back, creating large quantities of network traffic and increasing the overall time for processing. Many transcoding solutions are also fundamentally limited by the bandwidth they have available to and from the network storage system. In a broadcast workflow, very large file sizes are often involved and moving these between systems is expensive and slow. Many storage environments have a limited amount of network bandwidth available (as indeed do the transcode servers themselves) and the movement of these files uses this bandwidth and limits the throughput of the transcode process. The grid processing framework ensures that network bandwidth is never a limiting factor on transcode performance.

Complex media workflows can be dramatically simplified by establishing rules for how media should be automatically converted on the grid. Rather than having to move large media files between storage and processing environments, the application can be configured to process media stored within a particular folder on the grid and automatically create the desired format in another folder. This reduces network transfers between systems, and optimizes the time required to convert media.

The ability to process media on the storage environment also minimizes the physical footprint that the system requires. Whereas traditional transcode solutions require discreet systems for both storage and processing, within the grid processing framework storage and transcoding are combined to provide a solution that is less costly to implement.

Broadcasters and content owners are increasingly required to prepare and deliver content to a plethora of distribution platforms – on the web, via IPTV, on mobile phones, etc. – rather than just traditional linear transmission, and so transcoding has become very important in the workflow.

While the majority of broadcasters are focused on preparing their media for traditional broadcast, once that material is ready, many are now implementing parallel content preparation factories to ensure their media is available to distribute to alternative platforms.

It is not uncommon to take a piece of 'broadcast ready' content, record it to tape and re-ingest that content to as many different systems as platforms they are trying to support, e.g. one for Cable VOD, one for IPTV, one for WebTV, one for Mobile TV etc. While this does ensure they make their content available to these potentially lucrative audiences, it also means that for every additional platform they wish to support, they are adding another entire production and distribution workflow and all the cost involved. This is only sustainable while the throughput of content to these alternative platforms is limited – when broadcasters need to make a larger percentage of their content available on multiple platforms, a more efficient approach is required.

Each of these distribution workflows have their own peculiarities, but in essence, they are the same. So the ultimate solution for many broadcasters is to implement a single system capable of processing their content for any distribution channel they wish.

With a transcode application running on a grid processing framework, it is possible to define a system and a generic workflow that will deliver all the required formats in one step (see Figure 4). Folders can be used to store 'transmission ready' content and rules within the transcode engine can be used to define how that content should be treated and converted, based on the destination formats required. Multiple rules can be applied to that folder to ensure the content is made available in multiple formats for multiple devices. The input for each workflow becomes a single digital copy of the required content, and the output becomes multiple versions of the content is the formats required.

In summary, it is clear that transcoding adds a great deal of value to a rich media workflow, whether that be transmission, archive, production, or content distribution. Through the ability to automatically convert media to the format required for the destination device, broadcasters and media organizations can ensure that their content can be used to the fullest extent. The methodology employed by a grid processing framework adds to this value through the increased performance and scalability of the solution, and by combining the storage environment with content processing capability.

An electronic version of this whitepaper is available from www.broadcastpapers.com

AUDIO

Anniversaries Aplenty at AES

The recent 124th AES Convention in Amsterdam celebrated a number of significant milestones in the history of professional audio.
Important anniversaries included the recording of the Beatles Sgt. Pepper's Lonely Hearts Club Band album some 40 years ago, the 60th anniversary of Studer, the Association of Professional Recording Services (APRS), and the AES, which has grown from 150 people in 1948 to 14,000 members globally.

Roger Furness, the executive director of the AES, said, "Today, we are a truly worldwide professional society dedicated to audio."

Other anniversaries included 100 Years of the Triode, 25 Years of the CD, and the Rise and Fall of the Compact Cassette.

Looking to the present and the future, the technical

programme included many tutorials, workshops, master classes and strong paper sessions, and catered to audio scientists as well as other audio professionals. There was also a trend to cover more of the concerns of modern pop productions. A workshop about Recording Studio Design chaired by Fritz Fey was one example for this new tendency. Other workshops included Creating a Music Download Website (Vicki Melchior), Bringing Dynamics back into the Mix (Ronald Prent), and of course, as the outstanding highlight, the special event about the re-recording of the Beatle's Sgt. Pepper album, given by Beatles engineer Geoff Emerick.

The Exhibition was well visited with attendance almost the same as last year in Vienna at 6200.

The 126th AES Pro Audio Expo & Convention in 2009 runs from May 7 to 10 at the M,O,C, in Munich, Germany.

Visit www.aes.org

Røde Gives Voice to Pacific Communities

RØDE Microphones recently contributed to the 'Pacific Black Box' project, a two week training forum for the youth of Bougainville, Papua New Guinea and surrounding areas.

The Pacific Black Box project aims to provide skills and resources for young people to raise awareness of environmental and social issues through audio/visual digital communication mediums, helping them become community advocates on a local, national and global scale.

A collection of RØDE VideoMics were used as audio recording devices, attached to both digital camcorders and digital audio recorders. The RØDE VideoMic was selected for its high performance, ease of use, integrated shock mounting and robust ABS construction.

As many of the participants had never used a camera or touched a computer before, the forum commenced with training in the use of video cameras and digital audio recorders, as well as

>> >> Forum participants recording voice-overs with the RØDE VideoMic.

basic software, editing and storytelling principles.

Groups were then chosen to create a set of 'digi-stories' - short films using still camera shots and audio. Choosing subjects that emerged from discussions on climate change and sea level rise, the participants captured a range of images and sounds that helped tell their story.

The forum concluded with the participants constructing a documentary describing the situation of the Carteret Islanders, who have been identified as potentially becoming the fi rst international community to become entirely displaced. Experts predict that rising sea levels will engulf the entire island chain by 2015.

The documentary premiered at the recent UN Conference on Sustainability in Bonn, Germany, successfully raising crucial awareness amongst international delegates.

The forum has been seen as an overwhelming success in its aim to provide communication channels.

"I can do the documentation of my own island instead of letting outside countries do this," commented Nicholas Hakata, a youth from the Carteret Islands.

Visit www.pacificblackbox.com.au and www.rodemic.com

Spatial Audio Object Coding

At the recent 84th MPEG meeting, ISO/IEC 23002-2 Spatial Audio Object Coding (SAOC) progressed to Committee Draft. This technology enables the highly efficient storage and transport of individual audio objects (e.g. voices, instruments, ambience, etc.) as a single mono or stereo audio signal with a minimal data rate of side information. This format permits the listener to adjust the audio mix based on his or her personal taste, for example, by changing the level or position of audio objects within the audio scene. This new standard is applicable to personalised music, including Karaoke, and to highly flexible and teleconferencing solutions. *Visit www.chiariglione.org/mpeg/mpeg-tech.htm*

FACILITY TOUR

Sound in the Sands

By Brett Smith

THOSE TRAVELERS who take the 'left' at Albuquerque would be surprised to find 50-plus electronics and aerospace companies orbiting Intel's 180-acre Rio Rancho headquarters, which lies 10 miles north of the rabbithole, just west of Route 66 and right next to the legendary Rio Grande and Sante Fe trail.

Despite recent cutbacks of around 20 percent, Intel employs more than 3500 personnel in Rio Rancho, and this mix of code-cutter, chip maker and factory worker mixes it in the high New Mexican desert with FPGA gurus from Xilinx, avionics engineers from Honeywell, and audio genii from film and TV audio manufacturer, Lectrosonics.

In terms of feature film production, count Wild Hogs, Transformers and No Country for Old Men among 5 major features shot in Albuquerque in 2007, and look out for Terminator Salvation: The Future Begins and The Spirit in 2009.

Like most initiatives I discovered in New Mexico, this doesn't happen by chance. The state offers attractive tax benefits to producers willing to bring their production and post (including animation) to high desert country.

Tony Hambling from Murray Tregonning and Associates (MTA) suggested I might be interested in visiting their principal Lectrosonics, to see first hand how impressive their setup is. Tony has spent time training with Lectrosonics over the years.

Occupying two large factories off Quantum Drive, Lectrosonics is renowned in broadcast, film and live event production for their consistently reliable portable camera and belt-pack wireless systems, and in the AV world for their automatic microphone mixing and intelligent audio level control systems.

"Our software based LecNet product graces auditoria and boardrooms around the world," explains Director of Business Development Karl Winkler. "We're currently running one of our popular 3-day training sessions on how LecNet controls our Venue Wireless receivers and DM series audio Matrix Mixers."

Indeed, I walked in on a full house of resellers and customers nutting out a few complex configs with VP of Sales Gordon Moore, and Control & Applications Engineer Frank Gonzales.

DIGITAL HYBRID

Lectrosonics' trademarked Digital Hybrid Wireless system, which imposes a DSP signal over an FM analogue carrier, thus eliminating compander 'pumping' and offering compatibility with analogue receivers, is one of a many trademarks and patents held by the 37-year old company.

Intellectual property is important to President Larry Fisher.

>> >> Lectrosonics' Director of Business Development, Karl Winkler.

"So is continuity and innovation – a lot of our key staff have been with us for many years, which has allowed us to continually develop new products based on our past experience," comments Fisher.

What shouldn't have surprised me, but did, is that Lectrosonics design, prototype, cut, fold, drill, machine, assemble, test and ship – all from their Rio Ranch head office.

SR CAMERA PACK

The SR Dual-channel Slot Mount ENG Receiver is the latest product to emerge from Lectrosonics' Rio Rancho plant, and once again, it incorporates Digital Hybrid Wireless technology. Designed to fit into the Sony, Panasonic, Ikegami or JVC camcorder slot, the SR's two separate audio channels can feed separate inputs or can be mixed internally into a single camera input.

The two Digital Hybrid Wireless receives inside the SR offer 256 frequencies, as well as Lectrosonics SmartDiversity which has the option of independently combining antenna phas for each receiver channel, or using the two channels together in "True Diversity" Ratio mode as a single receiver.

>> >> A testing environment - Mechanical Engineer Michael Sepich

INHOUSE DESIGN

"Mechanical engineer Brian Kurowski and Senior Design Engineer Michael Sepich share major responsibility for the electronic design and all-metal construction of the SR. working within metres of each other is clearly reflected in the amazingly compact and splash resistant metal shell, which houses electronics and batteries without a millimeter wasted.

Tony Hambling from MTA explains. "The SR will be extremely popular for news application, and is ideally suited to Sony's DigiBeta replacement the PDW-700."

Tony also mentioned that Lectrosonics DM series of Digital Matrix Automixers was a long-standing hit with Australian customers, particularly in applications like Courtroom, auditoria or boardrooms."

My last meeting capped off a great day, as I re-introduced myself to VP of Marketing Bruce Jones, who was with Lectrosonics when my former employer, Miller Camera Support, held the agency in the early '90's. It's good to know that, despite having a lot less vegetation on the top paddock, the sands of time haven't deserted either of us.

>> >> Gentleman with CAD. Senior Design Engineer Brian Kurowski

>> >> The Lectrosonics training room. VP of Sales Gordon Moore at right.

REMOTE-CONTROL MIC INPUTS

Aviom, developer of the A-Net high-speed digital audio transmission protocol, is now shipping its remote-controllable 6416m Mic Input Module and its companion products, the RCI Remote Control Interface and the MCS Mic Control Surface.

With the addition of the mic preamp, Aviom's Pro64 Series can take any combination of mic, line, or digital audio signals and move them seamlessly in real time. *Visit www.aviom.com*

WIRELESS COMMUNICATIONS SYSTEM

Clear-Com Communication Systems recently started shipping its newly enhanced FreeSpeak10 digital wireless system. The upgraded version of its wireless intercommunication system enables users to have beltpack-to-beltpack conversations or small group conferences, linking them via the base-station to party-line and digital matrix systems.

The new digital wireless intercom system offers license-free communication and is based upon a cellular architecture that allows up to 10 beltpacks to roam seamlessly between remote active antennas.

FreeSpeak10 adds new features like remote battery monitoring and remote microphone kill, and vibration alert, which allows the base-station to be notified when the headset has been removed from the ear.

Improved configuration software allows for individual labelling of the user's beltpacks and the creation of communication routes and conference groups.

At the heart of the FreeSpeak10 system is a programmable 1RU base-station from which an operator can control and oversee all communications for up to 10 durable, digital wireless beltpacks. The system can be controlled from both the front-panel fluorescent display on the base-station or remotely via an ethernet-connected PC running the configuration software.
Visit www.clearcom.com

WIRELESS HEADPHONES

Audio Telex has introduced the new Beyerdynamic RSX700 headphones to the Australian market. The RSX700 is a 2.4GHz wireless headphone system for both home and commercial applications.

The new digital wireless transmission technology allows for interference-free transmission up to 20 metres without sacrificing audio quality. Its small docking station easily connects to any hi-fi, TV or audio system, while the rechargeable batteries inside the headphone are charged via the transmitter, making operation and battery maintenance simple.

The headphone itself delivers powerful bass and transparent highs due to the large acoustic closed back chamber.
Visit www.audiotelex.com.au

AUTO NOISE REDUCTION

At the recent Audio Engineering Society (AES) convention in Amsterdam in late May, ATC Labs introduced a unique new automatic software-based noise removal and reduction system. The AutoAudioDenoizer provides broadcast engineers, sound field recording engineers, audio restoration professionals, and forensic audio engineers with an easy-to-use software product that can perform real-time, on-the-fly automatic noise reduction (ANR).

Based on a proprietary, patent-pending ATC Labs algorithm which employs signal processing and psychoacoustic modelling techniques to perceptually 'weigh' the audio and noise components, the AutoAudioDenoizer ensures that the main signal characteristics of audio are preserved, even while substantial noise removal is applied.

It has the look and feel of a traditional mixing console. For embedded applications, ANR API libraries are also available for Windows and DSP platforms. It can be used for noise reduction in mobile applications, live remote recordings, forensic applications and audio restoration.

Customers can set profiles for audio types and let the system run in a fire-and-forget mode, or they can perform dynamic, on-the-fly changes as appropriate for their particular applications.

In addition to removing noise from corrupted audio, there are additional built-in tools, such as Incoherent Component Suppression (ICS) and Dynamic Listener Fatigue Reduction (DLFR) modules that smooth and condition the audio for increased pleasantness and listen-ability.
Visit www.atc-labs.com

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8-TRACK DIGITAL RECORDER

Sound Devices recently unveiled the 788T - a new 8-track digital audio recorder designed for production sound.

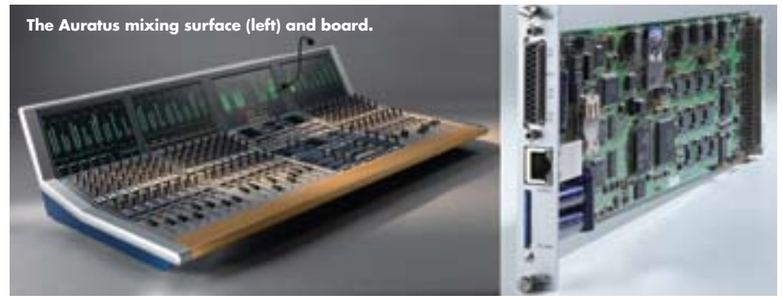
Its eight full-featured inputs accept either microphone or line-level signals, providing 48 V phantom power for condenser microphones, peak limiters for microphone inputs, and fully adjustable high-pass filters. Extensive routing flexibility allows each input to be routed to mixed tracks or to isolated tracks.

The 788T has three options for recording media, internal 160Gb SATA hard drive, CompactFlash media with UDMA support, or an external FireWire hard drive or DVD-RAM (with bus powering). Any of these can be used simultaneously.

Additionally, when connected to Mac OS, or Windows computers with high-speed USB or FireWire 400/800, the 788T functions as a high-speed mass storage device.

To simplify interconnection with mixers and cameras with AES3 connectivity, the 788T has eight channels of balanced AES3 digital input and six channels of balanced AES3 output. The 788T can be clocked from external word clock or from video sync and it features a high-accuracy time code reader/generator on board. It also includes auto-record features to chase external rec-run video sources.

To simplify metadata entry the 788T directly accepts USB keyboards. Keyboard shortcuts can be programmed to control menu items and machine transport.
Visit www.sounddevices.com


The Auratus mixing surface (left) and board.

MIXING CONSOLE ON A BOARD

At the recent AES convention in Amsterdam, Salzbrenner Stagetec Mediagroup unveiled Auratus, which the company is calling a mixing console on a board. Thanks to a new design, the company was able to achieve a high concentration of DSP power on a single board that slots into a standard NEXUS 3-U Base Device. Nexus is the company's audio processor, router and I/O matrix. Apart from NEXUS, the mixing-console system does not need a control computer. All generated data is stored onto ordinary SD memory cards.

Developed as a small production, broadcasting, and live console, the Auratus supports mixer configurations with up to 54 audio channels and 8 sums, 8 aux buses, 8 monitoring buses and 8 mix-minus sums.

To maximise utilisation of the available DSP resources, Auratus' bus layout is very similar to a hardwired console. The console does not require any user configuration and looks just like a fixed-architecture analogue desk.

It also offers many features designed specifically for broadcasters, including audio-follow-video functions, a remote-controlled fader (on/off) functionality, two logic keys per channel, extensive cue-light signaling, eight separately configurable N-1 buses, and two timers capable of counting down as well as up.

The standard version Auratus is designed for 5.1 and stereo formats, but a stereo-only version is available on request.

The company also introduced a new option for its large mixing system, Aurus - a new virtual control interface, which can either append eight additional fader control channels to the console, or run in parallel with the mixing console's faders. When networked with Aurus via WLAN, The Aurus Virtual Surface serves as a roving remote control.
Visit www.stagetec.com

PLUG INTO FEEDBACK

Softube is now shipping its Acoustic Feedback Deluxe plug-in, featuring harmonic and sub-harmonic selectors. The original Acoustic Feedback plug-in gives users a realistic simulation of guitar feedback. Softube has expanded on this concept in Acoustic Feedback Deluxe, which allows the user to choose which harmonics will dominate during feedback, providing greater control over the result. For even more sonic possibilities, an optional sub-harmonic function has been added, allowing the application to feedback at half the fundamental frequency, providing a deeper, smoother effect. The result is a plug-in that retains the authentic sound and simplicity of the original Acoustic Feedback application, but adds sub-harmonic growl and more detailed control of the timbre. Softube's core technology is the simulation of analog circuits through physical modeling, an area in which the company holds several patents. Acoustic Feedback Deluxe is available as a TDM plug-in and requires Digidesign Pro Tools HD or Venue hardware. *Visit www.softube.com*

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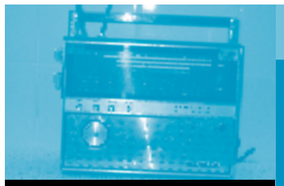

RADIO

ADVERTISING AGENCIES JOIN FORCES ON DIGITAL

Australia's leading advertising agencies and radio stations have joined forces to provide advice and guidance for the industry about the introduction and implementation of digital radio.

The Digital Radio Advertising Advisory Group includes senior representatives from Starcom, Mitchell's, Ikon Communications, Razor Media, Smart, Clemenger BBDO, OMD, Zenith Optimedia, Initiative, Carat, Maxus, Total Advertising and Communications, HMA Blaze, as well as representatives from key industry bodies such as the MFA and AANA along with senior executives of Australia's major radio networks.

Discussions at the inaugural meeting focused on a market update including the retailer strategy and a receiver manufacturers update, the brand and communication strategy for the digital radio launch; benefits for advertisers and feedback from the advertising agencies.

The Digital Radio Advertising Advisory Group will meet regularly. Specific responsibilities of the group will include providing advice from the advertising sector on the implementation of digital radio, and providing feedback and liaison about the use of digital radio in advertising.

According to Commercial Radio Australia CEO, Joan Warner, the Advertising Advisory Group meeting followed a successful briefing with manufacturers, some leading retailers and broadcasters about a holistic approach to ensuring the launch of digital radio next year is successful.

MEDIACORP DEPLOYS APT FOR STLS

BroadcastAsia2008 - Singapore's MediaCorp Pte Ltd has deployed several audio multiplexers from APT for studio to transmitter links over E1.

APT's WorldNet Oslo was selected as the platform of choice to replace outdated equipment located at MediaCorp's studio and transmitter sites. Operating over an E1 link, the units provide essential back-up for fourteen stereo programmes which are delivered to the Bukit Batok Transmission Centre 9km away.

The APT WorldNet Oslo units were supplied by APT's Singapore based distributor Mediacast.

The WorldNet Oslo is a modular, multi-channel audio multiplexer designed to transport high quality content over both E1 and IP networks. With a feature set incorporating Enhanced apt-X coding, the unit delivers real-time, near-lossless quality audio on up to 28 channels. Redundant power supplies and automatic back-up functionality ensure round the clock reliability for mission-critical applications such as studio to transmitter links and inter-studio networking.

DAB+ LAUNCH FOR SINGAPORE

BroadcastAsia2008 – Singaporean subscription radio provider Rediffusion has announced the launch of a terrestrial DAB AAC+ (Digital Audio Broadcast) commercial operation using the company's proprietary conditional access system. On its launch, Rediffusion will broadcast 22 audio channels including Bloomberg News, National Lampoon, RTHK from Hong Kong and KISS from Taiwan.

Rediffusion also boasts three local stations: GOLD - the only dialect radio station in Singapore; SILVER - an educational mandarin station for the young; and STAR - the only station in Singapore that plays local music 24/7. There will also be more than 12 non-stop commercial-free stations playing different music genres to suit different moods and occasions.

Rediffusion is a subscription radio service with a long history in Singapore. Operating since 1949 via cable, Rediffusion served the community, providing news, information and music to the public. In 2005 the Media Development Authority of Singapore (MDA) awarded Rediffusion a Digital Audio Broadcasting (DAB) licence, making it the only privately-owned operator to possess one.
Visit www.rediffusion.com

ABC LAUNCHES NEW COAST FM STUDIOS

Late May saw ABC Chairman Maurice Newman AC officially launch the new home of ABC Coast FM in Maroochydore, Queensland.

Mr Newman was joined by ABC Director Radio & Regional Content – Sue Howard, Federal Member for Fisher – The Hon. Peter Slipper, Member for Maroochydore – Fiona Simpson, Member for Nicklin – Peter Wellington, Member for Kawana – Steve Dickson, local dignitaries and ABC radio staff.

"ABC Coast FM is a dynamic and vital part of the Sunshine Coast delivering a high quality service to our ABC listening community," said Mr Newman. "Whether it's the provision of round-the-clock emergency service information, such as the 2007 floods, or supporting major cultural and sporting events, ABC Coast FM plays a pivotal role in this region.

ABC Coast FM was initiated into the ABC Local Radio network in 1992 to provide a radio service to the rapidly growing Sunshine Coast and hinterland region and over the past 16 years the resources required to continue the delivery of radio services has increased significantly.

The new facility has two state of the art broadcast studios, a purpose-built edit and production booth and digital work stations.

DAB/DMB SERVICE MONITORING RECEIVER

UK company SomerData used the recent BroadcastAsia show in Singapore to launch the DABSTOR Rx, a receiver that enables users to remotely access multiple DAB & DMB Audio, Video and Data services at the same time.

A first for SomerData, users are able to simultaneously view multiple Audio, Video and Data services from a single receiver. DABSTOR-Rx eliminates the need to use several receivers per DAB/DMB Ensemble, thereby freeing-up valuable space and resources. Combine this with the remote monitoring capabilities – enabling viewing stations at one or more locations across a multicast network – and it is easy to see why the SomerData DABSTOR-Rx is expected to be the latest must have professional service monitoring product for broadcasters and network service providers.

Supporting the main Audio, video and Data service types, including DAB+ and DMB with BIFS, the software used for the remote monitoring is also compatible with the SomerData DABSTOR ETI Monitor application. Further developments during 2008 will see the introduction of endless-loop Logger and service Monitor/Analyser options.

Also demonstrated was the new DABAIR-II USB receiver for DAB & DMB Audio, Video and Data services is designed to be used as a portable device and is ideal for field monitoring. It allows broadcasters and network service providers to verify RF coverage and service availability simply by plugging in to a laptop PC. The GPS logging is compatible with Google Earth, allowing for easy graphical indication of signal level by location. A service can also be viewed in real time via the optional DAB/DMB media player.
Visit www.somerdata.com

ANALOG DEVICES TAKES FACTUM MIDDLEWARE

Factum Electronics AB has announced an agreement with Analog Devices, Inc., which covers licensing of Factum's DAB/DMB middleware and co-operation on technology and marketing targeting handheld mobile devices. Factum offers a range of middleware modules for data services, including FIC, DLS, SLS, EPG, TPEG and BWS. These middleware modules are built on Factum's extensive experience as a head-end system manufacturer and serve as a bridge between the head-end system and the terminals. Factum's middleware offers customers cost savings and gains in time to market.

"We are pleased to benefit from Factum's experience and are confident that our Blackfin platforms will deliver high-performance multimedia solutions to our OEM and ODM customers and ultimately to the consumers," said Mike Haidar, Product Line Director, Digital Home, Analog Devices Inc. *Visit www.factum.se*

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On a Sound Path

Phil Sandberg Talks to Klotz Digital CEO Thomas Klotz and Patrick Salloch, GM – Klotz Digital Asia-Pacific.

>> >> [L-R] Thomas Klotz and Patrick Salloch.

Q: You've recently released a range of new products, can you give us an outline of what they are?

TK: "At NAB we released a new console which is aimed at the lower-cost television market. We call it the Xenium Surround Sound. It is priced around US$30,000-$50,000 and should help in television stations to produce or mix surround content. It will retrieve the audio from the video channel, mix it and re-embed in the video stream. It's something that you could put in a news editing suite or an OB van.

"The other product we released at NAB is our new Venice router which is a compact router able to route over 2600 channels per square and is expandable to over 10,000 channels. Not that we see that many customers who need that but we believe the compact central router will find a market.

"The innovation included in this router is that we offer output for the new IEEE Ethernet standard which should be released at the end of this year and should fix all the shortcomings of the current Ethernet standard with regard to media transportation and latency-free media transportation. The standard is supported by the big manufacturers of routers and switchers which is why we think that the customers can be sure that they will have full support over the next decade at least. What it means is that it will finally be possible to transport audio from the playout system seamlessly to the consumer.

"Ethernet today is not made for synchronous latency-free media transportation. Video is not such a problem because with video you normally only have one single channel that you have to transport, but in audio you have to deal with a number of channels. In radio stations and production facilities you can have dozens of channels and you can't afford to have any uncontrolled latency between these channels because they would result in audible failures.

"Some manufacturers have tried to overcome these shortcomings by adapting the Ethernet protocol slightly but it ends up that you cannot use standard routers and switchers. It turns out to be a risk for the user because they can't be sure if the switchers they are using are available in the future during the amortisation period.

"We have been waiting until a standard is set which we can used and guarantee our customers the support for the period they want to use it."

Q: Will there be applications there for both radio and TV broadcasters?

TK: "We think so. Radio producers have tried to use new channels for quite a while without knowing how to make money from it and that's a free of cost channel that they can use. Also, more and more radio stations and television stations try to use the content for both media. We have clients, for example, who transmit their radio shows over the television during the daytime.

"This is where we have also decided to look closer at what happens in television by supporting our OEM customer Thomson. It gives us a good view of what is happening in television as well."

Q: You've recently restructured in the Asia-Pacific. Can you outline what's happened?

PS: "We have a very strong commitment to the Asian region, as we do in Australia. We have a local office in Kuala Lumpur. We have a local office in Sydney. China is a very large market for us and in Malaysia itself we have clients like RTM, we have engineering there and we have just employed a new marketing and sales manager for the region Rodney Houston. He is originally from Amber Technology in New Zealand. As Amber sold a number of our consoles there into RadioWorks, Rodney was playing a big part in that deal and he has done Klotz training, he's done Vadis courses, he understands the system. From the sales effort he's shown outside of Klotz, we were quite impressed and we think that Rodney will be a great addition to our team in Asia."

Q: What recent regional projects can you talk about?

PS: "We're just finished the commissioning for a Varizone system that we've put into Central Railway Station in Sydney. We've delivered a large amount of hardware for the Austereo rebuild in Melbourne. We're awaiting the final hardware delivery for ABC Radio in Melbourne.

"The changes in cross-media ownership have started have an impact with Prime Television purchasing a large amount of consoles for their radio stations."

TK: "In Asia the market is turning away from huge projects and more toward lower cost consoles. We've sold 60 consoles – Xenons and Aeons into China into for more low cost projects."

PS: "We delivered a Decennium and Xenons to the new AFTRS installation. They already had a DC2 in the old facility and they've chosen us again as an industry standard. They're very serious about training their students on equipment that they will encounter in real-life broadcast facilities."

Q: Finally, is the imminent DAB+ roll-out beginning to impact on Klotz?

PS: "Yes, we have broadcasters who are planning to purchase additional routers for that purpose – sort of simulcasting if you like – and we have new facilities that are being built, additional studios for this. It's not a massive impact at this stage but it will grow as the months go by."

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transmission

SIGNAL DISTRIBUTION, TEST & MEASUREMENT

Mediacorp Moves with Magna, Miranda

Magna Systems and Engineering has announced that Singapore's MediaCorp has chosen a full Miranda Master Control and monitoring solution for their Digital Media Centre in Singapore.

MediaCorp is Singapore's leading media company with a range of platforms, spanning television, radio, newspapers, magazines, movies and digital media. As one of the region's most established broadcasters, MediaCorp plays a key role in developing Singapore as a broadcasting and media production hub in Asia. Today, MediaCorp has over 55 products in four languages - English, Mandarin, Malay and Tamil.

According to MediaCorp VP of Engineering, Kelvin Ma, their requirements were quite precise.

He said, "We recently reviewed our master control and decided that in order to be more future proofed and efficient, we required the latest in multi-viewer displays and automated monitoring. This decision then

triggered a full tender."

As part of the tender process, Magna Systems and Engineering proposed a Miranda solution combining Miranda's iControl end-to-end facility monitoring and control system, Monitor Probe hardware and Kaleido-X MultiViewer multi-image display.

Ma continued, "We chose Magna Systems' Miranda solution as we found the Kaleido-X MultiViewer represented the latest showcase technology and was a very cost effective way to monitor our channels. In addition, their web based iControl software allows us to monitor all the elements involved in the production, processing and play-out of our television signals from a single, integrated GUI, which is a big advantage.

"We have had Miranda equipment for some time including their very successful Image Store. We are very confident in Miranda's efficiency and reliability combined with Magna's high level of service and support. I believe we now have the best monitoring and control solution in its class."

Installed by Magna Systems, the Miranda iControl, Monitor Prop and Kaleido-X MultiViewer monitoring and control solution will go live in July 2008.

Phoenix TV Chooses Pebble Beach

Phoenix TV of Hong Kong has purchased a Pebble Beach Neptune automation system for installation in its new broadcast play-out centre.

Neptune is a full-scale transmission automation product designed to automate the acquisition and play-out of programmes, commercials and trailers in a TV station. Neptune has a client-server architecture. The controller controls the broadcast devices via serial or network interfaces and communicates to the clients via Pebble Beach's TCP/IP protocol. There are clients for ingest, transmission and media browsing. A separate housekeeper is responsible for managing the system database and for generating logs.

The deal was facilitated by Pebble Beach's Asia Pac partner, Magna Systems and represents the first of its kind in Hong Kong.

According to Phoenix TV Engineering Manager Wicky Law, "At Phoenix TV we have a very specific workflow in that all of our content has to undergo a strict QC before it goes to air. We approached several automation vendors and invited them to Hong Kong to give us demonstrations of how their systems could manage our workflow. When we considered all options, Magna Systems and the Pebble Beach Neptune solution was the best. We were also very impressed with Magna Systems' and Pebble Beach's support and response times."

The Pebble Beach Neptune Automation system is part of a 5-channel play-out solution which will be housed alongside new studios and newsrooms in Phoenix TV's purpose-built broadcast centre in Taipo. Of those five channels, three are broadcast to China, one to America and one to Europe. Under Neptune automation will be Miranda Master Control, Omneon servers and Thomson routers.

The 5-channel Pebble Beach Neptune automation system is expected to be commissioned in August 2008.

Movie Network Outsources to Omnilab

Omnilab Media has secured a long-term outsourcing deal with Movie Network Channels for the play-out, facilities and post production services of its channels.

Movie Network Channels (owned by Village Roadshow, Warner Bros., MGM and DisneyABC) is one of Australia's premium subscription television organisations broadcasting its current channels Movie One, Movie Two, Movie Extra and Movie Greats on the Foxtel, Austar, Optus, SelecTV and Transact platforms.

Omnilab Media managing director Christopher Mapp said, "I am delighted to announce that Omnilab Media will continue to be Movie Network Channels' long-term outsourcing partner. This partnership not only demonstrates our ongoing commitment to the Australian media market but also sets a new benchmark for outsourcing in our region."

As part of the deal Omnilab is building a new facility at Movie Network Channels' offices in St. Leonards which includes the installation of a 23-seat Final Cut Pro solution and providing a dedicated onsite team responsible for audio, graphics, editing and technical support.

In addition Omnilab is also extending the broadcast facilities they have at their Yurong Street offices, building a multi-channel HD operations centre which will incorporate Omnilab's continued development of broadcast and delivery within new media platforms such as mobile TV, internet TV and IPTV.

The new Movie Network Channels facility is scheduled for completion in August 2008 and Omnilab's Yurong Street multi-channel HD broadcast operations centre in the last quarter of the year.

New Switchers from Echolab

Echolab introduced its new Overture1 (1 ME) and Overture2 (2 ME) switchers at Broadcast Asia 2008. Available in standard definition (SD) and multi-definition (MD) models, they combine internal conversion and synchronisation with key layering and special effects. In addition to four ME keys and two downstream keyers, which enable title keying for graphics, logos and bugs, the Overture family features the company's Stinger and SuperSource keys.

The Stinger transition is a "take block" keyer with combined mix/wipe and graphic control that reduces complex animated transitions to a single button press. The company's new SuperSource key

>> >> Echolab's Overture1 switcher.

allows the operator to build a custom layout using DVEs and graphics, and then assigns the composition to a cross-point button. A DVE key in each "take block" enables instant transition effects, and the mulit-definition Overture systems offer as many as four channels of DVE with warp and lighting effects. DVE capabilities are complemented by as many as 34 internal graphics/still stores.

Overture switchers accept up to 32 multi-format analogue and digital signals and provide as many as 16 multi-format outputs. Internal frame synchronization helps to ensure the quality of effects, and integrated cross-conversion within MD models streamlines switching of video in multiple formats. Both systems are available with either the company's Opera (SD) or OvationMD (MD) video production switchers.

Visit www.echolab.com

Middleware for ITV

Strategy & Technology (S&T) introduced three new middleware technologies for interactive television at Broadcast Asia.

The show marked the regional debut of the new version of S&T's MHEG-5 middleware for receiver manufacturers – RedKey 2. RedKey 2 offers improved graphics capabilities, HD support and the proposed IP-based Interaction Channel. The system can be licensed on a module-by-module basis and the company reports that Humax and Panasonic have already selected the system for use with Freesat in the UK.

S&T also announced a new engine for the proposed CI+ Browser (Common Interface Plus). This will be available as a standalone product or integrated with S&T's RedKey MHEG engine.

For application developers and operators, the company has a new authoring tool for its MHEG Presenter publishing framework, a new launch manager – MHEG Controller – for the broadcast of multiple MHEG applications and a new version of its MHEG Player – a PC desktop version of the RedKey engine.

Visit www.s-and-t.com

The Buzz from Ruzz

By Phil Sandberg

ONE OF THE GREAT innovation stories of Australian broadcasting, and technology development generally, Ruzz TV was founded by Robert Rutherford in 1999 and has grown from back room beginnings to develop a roster of Australian and international clients seeking the company's expertise. Ruzz TV could be described as a company founded on the 'New Glue', but whereas broadcasters have traditionally viewed glue as the routing components designed to get a signal from A to B, Ruzz TV has a macro view of software and systems enabling disparate elements of the broadcast plant to communicate and work together.

Early milestones for the company included deployment of its StreamWeaver product at Granada TV, Leeds, in 1999; provision of a Basketball graphics and scoring solution for the host broadcaster SOBO at the Sydney Olympics (2000); implementation of its Rowan and Mackswell systems into the Seven Network playout centre in Melbourne (2003); and deployment of its Amy Content Management solution into the Foxtel facility at North Ryde (2005).

Now in expanded premises in the Sydney suburb of Gladesville, the company's brains trust has expanded to include Joseph Younane, Business Development Manager; David Ralphs, Principal Software Engineer; and Peter Rhys-Jones Sales & Marketing.

Using his experience as 'fire fighter' for Philips-Alamar, Robert Rutherford has forged a product roadmap for the company which provides a toolbox of adaptable building blocks designed to navigate the vagaries of the new IT-based broadcasting.

"We're a company that gets our business by providing solutions to specific customers' needs, so we're not a shrink wrap company," says Rutherford. "We're never going to sell stuff by having a shopping cart on our website - you want three of these delivered proceed to checkout - it's not going to work that way.

"We're a company where almost all our people have a TV background rather than an IT company that's trying to break into the TV market, we're TV people who are trying to apply IT technology.

"I hesitate to use the word customisation because it's not that every solution we provide is total custom work that's developed from scratch for a particular customer, but it is true that there's a degree of integration the customers need that has to happen for every project.

"The message anywhere is there's no value in the industry now in being a box supplier. Everybody is

>> >> Ruzz TV founder Robert Rutherford (left) and Sales & Marketing Manager Peter Rhys-Jones.

positioning themselves as a solutions supplier, from Harris to Thomson. Take Avid, their strategic moves recently have been away from just shipping editors into shipping solutions. Play-out servers have become a commodity item. More often than not you're buying them on price rather than features. The value that we can bring is in understanding what a customer's trying to do and making a solution for them rather than just saying well here's a box we can ship."

Ruzz TV's first product was called StreamWeaver and it provided a means of generating an accurate, synchronised program guide for a digital service. It tracked late changes caused by sport overruns or programs that started early or late and reflected it in the program guide and the IT department.

"Back then," Says Rutherford, "the existing automation systems out there like Alamar couldn't provide that functionality, so we provided a solution that gave that functionality without requiring people to replace the automation system.

"In that case, the value we added was 'buy this little piece here that lets you keep this big investment for another five years, rather than having to throw the baby out with the bathwater just because we couldn't build this one bit of functionality that's missing.

"So, initially a lot of what we did was value adding to existing equipment, so providing integrated workflow, plugging things together, making them talk at those different layers. Over that process we identified that there are some missing pieces in terms of the actual equipment as well as plugging it all together."

According to Rutherford, Ruzz TV tries to apply big company process and quality control to what it delivers. With an emphasis on project planning, documentation and specifications are all important.

"We have this document called the functional requirement specification which in some ways is the bane of our existence because it takes a long time to develop and it requires a lot of iteration with the customer to get it right. But, it's also our lifesaver because it means that there's none of the mismatch between what the customer is expecting and what they're getting, so that works for us and the customer, it works for us commercially because the customer understands if they want some additional functionality they can have it but it's going to have an impact on the cost and the timeline. We really insist on that kind of process with the customer. That ends up being the bible for the project, on a big project it could be 70, 80, 90 pages long.

"Another thing is what we call our Victor Abstraction Model and that's a way that we model for about 80% of our products. We build up this internal model of what's going on in a facility, so in that model we know what all devices there are that can store files, what formats are they in, where are they stored, what copies are they? We also store the schedule, the play out schedule, the record schedule, the ingest schedule, the transfer schedule, everything is built into this one model and then everything else is built around that.

"So we've got this kind of database model. Then you build your business rules on top of that. So if you've got a business rule that says I want to keep my play out servers at less than 80% capacity and I want to delete stuff off them that hasn't been played for three weeks, we develop the business rule up here and it's totally separate from all the interfaces and all that kind of stuff because we've got the model in between."

According to Rutherford, Ruzz TV's building blocks are the components that the company has built over time which complement the customised elements of a project.

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Modular Systems

Eyeheight introduced six new additions to its range of modular broadcast systems at Broadcast Asia.

* Eyeheight's new AR-2SD standard-definition and AR-2MD multi-definition aspect ratio converters enable 4:3 pictures to be switched between 16:9, 15:9 and 14:9 letterbox, 4:3 full frame and 2.35 or 1.85 anamorphic formats. A flexible zoom mode allows source video to be compressed and expanded horizontally and vertically for unusual applications.
* Meanwhile, the AS-2MD multi-definition audio shuffler simplifies the task of re-assigning embedded audio channels within an HD-SDI or SD-SDI feed. A second input allows embedded audio to be extracted from one feed and added to alternative video from another. It also enables audio breakaway of any source if installed on an HD-SDI router.
* Eyeheight's enigmaHDi allows RS-232 data to be transported via HD-SDI. Data is carried on user-selectable lines in the HD signal stream, securely protected against the extremely high compression ratios, which play havoc with traditionally embedded metadata. It is a versatile system with a wide range of applications including camera pan/tilt data forwarding to effects equipment, caption data and tape metadata delivery. Carrier lines can be blanked to conceal data from downstream devices or viewers.
* The LI-1DM is a compact multi-definition logo inserter with dual independent logo generators and dual independent keyers. The LI-1DM allows HD or SD logos to be uploaded to flash memory, monitored and controlled via Ethernet. Each channel can accommodate logos in any common format, including 1080i, 1080p25, 1080p30, 720p, 625 and 525 SDI.
* Eyeheight's SA-2U is a 4:4:4 dual-linkable graticule/safe-area and blanking generator. It is designed for SD, HD-SDI, multi-definition (single-link) and 2K (dual-link) post-production applications. The SA-2U generates safe action graticules, safe title and centre markers (short and full screen) for all common TV and film formats.
* Incorporating over 100 new features enhancements, netLogo provides an easy way to load, manage and control logo insertion systems for numerous channels from a single GUI. It can be tightly integrated with the new etherBox (FB-9E) chassis and Eyeheight's full range of logo inserter cards, including the latest dual-channel multi-definition LI-1DM.

Visit www.eyeheight.com

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"When we go to a customer, the solution we provide is on the one hand customised to their needs, on the other hand it's built from all the standard components that we've got on the shelf. Part of the challenge, the technical challenge for us is how we build all these components and make them modular enough so that we can pick and choose the ones we need for different customers.

"One of those components is what we call our deployment platform, a set of tools we've developed in how we actually ship something that gives us a platform to provide full tolerance and reliability and redundancy and just a way of configuring the system, a way of deploying the system - logging, remote diagnostics, S&NP, all that kind of stuff it's all built from a standard platform. So, every product that we ship has that same core deployment platform. So, whether somebody's using fault tolerance and clustering and all of that or not they get the platform that supports all of that for the future."

Among the Ruzz TV toolbox is the company's transfer engine which doesn't just moves files from place to place, it manages bandwidth allocation, prioritisation, port management, the number of transfers at any given time. It also reserves bandwidth for high priority transfers.

Another is Igor. Similar in function, it performs automated ingests, controls flexi carts and provides automatic retries of failed ingests as well as frame accurate ingest. Backing up Igor are Ruzz developed drivers for flexi carts, VTRs and the like.

"Another thing we've done is a lot of work on providing robust links between remote sites," says Rutherford. "That came up originally in a disaster recovery context, but it's also useful for a distributed content context. So, if you've got a regional customer who has 30 remote sites that they want to bring content in from it's designed to be ultra robust and reliable. It's based on checksums of files at the other end."

Ruzz goes to great pains to ensure device compatibility with any system it is working on.

"The biggest obstacle is generally actually getting your hands on the equipment in an environment where you can test it," says Rutherford. "For most devices it's one or two weeks of work to actually make it work once we've got it. We see that as being a key part of our offerings. We're not going to sit there like some automation vendors do and say well oh sorry we don't have an interface to A, but are you wanting to buy B, it just happens to be a product that our parent company sells."

Another recent product from the Ruzz stable is an ingest solution for Foxtel called Wanda. With modular user interfaces, the system can configure different devices such as VTRs or Air Speed servers for the ingest process. Wanda also displays metadata relating to the item being ingested and control in and out points.

"All of that is modular," says Robert Rutherford. "It doesn't require us to reinvent the wheel to provide what looks to the customer like a fully customised solution. We take a very traditional kind of Unix approach to deploying the solutions. In the Windows world Wanda would likely be just one massive application that was actually controlling the VTR's and all of it. In our case, the GUI is just a GUI. In that total deployment there's probably about 30 different processes that are all looking after different pieces of the puzzle, so when you actually say go and do an ingest there's a dedicated process that's managing that ingest and there's dedicated drivers for each device. It's a very decoupled modular approach to doing things.

"Another solution is Quentin, our QA solution which, at first glance, the user interface looks the same because it's got some of the same modules and same framework, but it generates QA reports that are integrated into an overall QA management system."

If that wasn't enough, Ruzz has also rolled out a content management system for Foxtel. Called Amy, it is a schedule-driven solution controlling ingest, movement of media from ingest to archive, and from archive to play-out servers. It also provides space management on the play out servers.

"In addition to those product building blocks we also offer professional services," says Rutherford. "The bulk of that is normally the adaptation and development, including install, configuration and training. Support and service is very big for us. A lot of our customers take what we call our enhanced support options where they get ongoing minor enhancements for those instances where they are bringing on a new channel or need some minor change to how things work. The customers have the option of wrapping a certain amount of regular changes into op-ex rather than cap-ex so they pay for it effectively on a monthly basis and accumulate so many days of development time that we then apply back to them to do those minor changes and a lot of the customers find that kind of thing very attractive that they can get these ongoing tweaks.

"Because we do our own stuff and we're not tied to any particular vendors' products, we've got a lot of very good relationship with a lot of the different vendors and integrators, so you know all the local players as far as the Sony, Thomson, Techtel, Magna, Quinto, all those guys where we've worked with them, we've bid projects with them and also got direct relationships with a lot of the vendors."

To fill those rare gaps in the company's repertoire, Ruzz TV has partnered with Europe-base companies Publitronic and Ceiton, the latter a specialist in workflow management while the former is a developer of play-out solutions.

"We formed partnerships with those guys not to just act as a box reseller but for situations where a customer comes to us and says we want a complete solution that includes this, we can offer them those products as part of the entire package."

While the crew at Ruzz still keeps it hand in at what they refer to as 'Real TV" such as providing election graphics systems for Seven and Sky News, the company is also looking hard at the potential opportunities in the television environment of the future.

"I think in very broad terms it's the efficiency of the whole play-out operation," says Rutherford. "If you look at the current operation, there's a scheduler deciding what programs are going to air, there's a salesperson that's selling spots in those programs, and then there's stuff coming out the transmitter at the other end. Right now the amount of people processes and systems that are between the input and output are just incredible. It's large and it's all legacy stuff.

"At some point in the future, you're going to be in the world where the scheduler or the sales guy sells a Coke spot into the system for 4:00pm this afternoon and without human intervention some system goes off to Adstream or Dubsat or whoever, finds that spot, it gets delivered automatically, it gets put into the system automatically and then without a human touching anything that spot plays out to air at the scheduled time, on a low cost play out system.

"It's probably quite a few years before a major free to air broadcaster is prepared to totally go kind of hands off on their main channel that's going to air. But we've got multi channelling coming up, we've got pay operators, we've got IPTV in all of that space.

"Adding a channel right now for a Foxtel or for a free to air is a one or two million dollar investment. Adding a channel should be a 100K investment, and that's where that's where I see this whole space going and that's where I think there is a big opportunity is to facilitate that.

"What I think is also part of this vision of the future is also a lot more localisation. Like the ability to do transmitter site based localisations. The technology has been there for a while but it hasn't been cost effective or the logistics of making it work haven't been there but getting local spots through your Gosford transmitter or even local programming, like having half an hour of Gosford local programming, is one of the kind of things that a free to air is going to have to look at to compete against the number of channels that are going to be on the cable offering."

Visit www.ruzz.tv

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mobile MEDIA

Broadcast Oz, PGK Media form Singapore Digital

BROADCAST TRANSMISSION service provider, Broadcast Australia, has inked a joint-venture agreement in Singapore, targeting the company's involvement in the city-state's emerging mobile TV sector. Struck between Broadcast Australia and Singaporean broadcast technology group, PGK Media, the joint-venture agreement has created Singapore Digital—a new entrant to Singapore's broadcast and digital media market.

Majority-owned by Broadcast Australia, Singapore Digital will focus on servicing Singapore's emerging digital television sector, with a particular focus on the development of a market position that will enable the cost effective delivery of mobile TV services and continue Singapore's leadership in digital broadcasting technologies. PGK Media Chairman, Giulio Dorrucci, will take on the role of CEO of Singapore Digital.

>> >> Broadcast Australia MD International Business Group, Chris Jaeger (left), with Singapore Digital CEO, Giulio Dorrucci.

The Singapore Digital joint-venture couples Broadcast Australia's proven digital broadcast infrastructure knowledge, network management experience and substantial financial strength, with PGK Media's innovation, entrepreneurial skills and local-market knowledge.

As part of the joint-venture, Singapore Digital will take over the operation and management of TV2GO, Singapore's nationwide mobile TV trial initiated by PGK Media in 2006. Following a six-month technical trial, the operational phase of the TV2GO trial was officially launched in June 2007. It is Singapore's first nationwide mobile TV trial, and delivers a mix of premium content to around 100 Singaporean trial participants.

Visit www.singaporedigital.sg

Live Ad insertion for Mobile TV

Melbourne-based Mobile TV company, MComms TV, has launched what it says is world first live Mobile TV Ad Insertion technology for the global Mobile TV market

The company used the recent CommunicAsia show in Singapore to launch MComms Ad Insert which allows advertisements to be incorporated into live Mobile TV streams and viewed on any handset. The software-based solution enables ads to be scheduled and inserted into live TV streams when and where required. MComms TV Founder and Managing Director, Grant Simonds, says "Content producers, mobile network operators and consumers are calling out for free MobileTV, but until now there hasn't been a universal solution for advertising in live Mobile TV. MComms Ad Insert changes all that by providing mobile network operators and content providers with a solution for scheduling, inserting and encoding advertising in live Mobile TV streams. Consumers will be able to watch free Mobile TV content on any handset without the need to download any special software."

The product was first previewed at the Mobile World Congress in Barcelona in February 2008.

"Interest in the product has been amazing. The soft launch in Barcelona provided us with internal enthusiasm to enhance the product and to make it available as soon as we could," Simonds said.

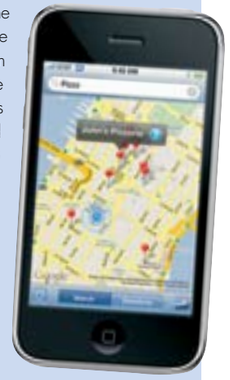
Ad Insertion into live mobile TV streams has been a missing ingredient in the technology offerings available to Operators. The launch of MComms Ad Insert is likely to generate significant new interest for the Australian owned and managed MComms TV.

MComms TV solutions also include:

- MComms Monitor which enables video streaming operators to monitor the availability of multiple video streams on-screen and using SNMP traps. It also provides a "Video Wall" for staff and customers to view available streaming content.
- MComms Transcode converts redundant live video streams from the internet, IPTV and analogue/digital feeds into compatible Mobile TV video streams. A stream can be output simultaneously in multiple formats such as H.263, H.264, MPEG and Windows Media.

For more information contact Grant Simonds, MComms TV on +61 417 120 628 or visit www.mcommstv.com

iPhone Cometh



July will no doubt see a frenzy of interest generated by the Australian release of the 3G version of Apple's iPhone. According to Apple, the iPhone 3G combines the features of iPhone with 3G networking that is twice as fast as the first generation iPhone, built-in GPS for expanded location based mobile services, and iPhone 2.0 software which includes support for Microsoft Exchange ActiveSync and runs the hundreds of third party applications already built with the recently released iPhone SDK. Optus will offer the handset as it completes expansion of its 3G network to cover 96 percent of the Australian population by December 2008 and 98 percent by December 2009. The telco currently has 7.14 million mobile customers in Australia and offers a suite of mobile content and services on Optus Zoo, including Google, MySpace Mobile, MTV Music Store, eBay and Mobile Instant Messenger, as well as sport, news, weather, shopping and lifestyle.

Meanwhile, Vodafone will offer iPhone 3G in Australia, Italy, New Zealand and Portugal from July, and in the Czech Republic, Egypt, Greece, India, South Africa and Turkey later this year. Supporting the numerous launches is a new "App Store" which will be available in 62 countries enabling developers to wirelessly deliver their applications directly to iPhone and iPod touch users around the world. Users can download applications wirelessly and start using them immediately. Apple says that downloads of its iPhone SDK (Software Development Kit) have topped more than 250,000 since its launch on 6 March. The iPhone SDK provides developers with the same rich set of Application Programming Interfaces (APIs) and tools that Apple uses to create its native applications for iPhone. Membership to the iPhone Developer Program is available worldwide. Developers set the price for their applications—including free—and retain 70 percent of all sales revenues. *Visit developer.apple.com/iphone/program.*

receiving end
SET-TOPS, TVs & DIGITAL CINEMA

D-Signage Network for Greater Union

Australia's Greater Union Organisation is leading the growth and development of the cinema industry by implementing innovative and interactive cinema experiences with the installation of digital signage and Plasma screens across its cinemas Australia wide.

As part of its strategy to lead the industry into the digital future, Greater Union is refreshing its 57 cinema complexes across the country. Around 500 Panasonic Plasma screens ranging from 42 inches to 103 inches are being installed with walls of up to 16 screens creating a high-impact display in the main foyer areas.

Leading the digital expansion is the newly refurbished Greater Union George Street in Sydney with the current installation of over 60 Panasonic Plasma screens throughout the complex including walls in the dining area, digital menu boards and a gigantic 103-inch Plasma screen - the largest available in Australia - upon entry into the foyer.

"George Street has been transformed to once again be Australia's flagship cinema entertainment destination," said Robert Flynn, Development Director for AHL Entertainment. "Greater Union/Birch Carroll and Coyle have begun producing and screening our own TV show, Cinebuzz, for our Plasma screens. The show mixes exclusive red carpet interviews, movie news, trailers and promotions and is hosted by MTV's Darren McMullen and former Channel 9 presenter Sami Lukis. It's another way we can enhance our patrons' overall experience at our cinemas.

"Retail studies show dynamic, animated communication tools are more effective than static ones. For example, instead of static light boxes advertising one movie, we can use our screens to promote a different movie at 30-second intervals; and candy bar offers can also be updated."

Mark Deere-Jones, Director, Panasonic Business Systems, said "Panasonic has worked with Greater Union and its systems integrator to deliver an innovative and ground-breaking end-to-end digital signage solution.

"The Full High Definition 103-inch Plasma captures the attention of arriving patrons, creating high-impact with amazing colour and detail. The 42 and 65-inch screens throughout the locations deliver high-quality viewing as well as a reliable, robust commercial design for optimal operation at all times."

Panasonic's digital signage solutions allow organisations to create high-impact communications that can be easily updated. For example, messages can be quickly changed over a network so they can be appropriate for different times of the day or different customer segments.

Mastering for D-Cinema

With more studios releasing digital content in the JPEG2000 format, there is need for post-production facility to be equipped with the proper mastering capabilities to create digital movie files for distribution to cinemas. GDC Technology's EN-2000 DSRTM Digital Film Agile Encoder is a product specifically designed to address this issue.

The EN-2000 DSRTM Digital Film Agile Encoder retains all the features of its predecessor, the EN-1000. In addition, the EN-2000 has the following new features:

- 2K DCI JPEG2000 compression – support for real-time or faster
- 4K DCI JPEG2000 compression
- Input sources expanded to include TIFF, DPX, and Targa files
- Image processing options such as cropping and scaling
- Color conversion using 3D lookup table
- Automatic color conversion to DCI X'Y'Z' color space
- Support for SMPTE-compliant DCI packages including the stereoscopic package

Visit www.gdc-tech.com

AccessIT to Bring Live 3D Events to 150 US Theatres

Access Integrated Technologies, Inc. ("AccessIT") has announced plans for the installation of 150 of its CineLive(SM) product in key markets throughout the United States. The technology, which enables the live broadcast to movie theatres of both 2-D and 3-D events such as sports and concerts, will be added to those theatres that are part of AccessIT's satellite network, all of which are part of the company's completed 3700 plus screen Phase 1 digital cinema deployment plan. Installations of CineLive will begin immediately in 50 sites and are anticipated to expand to at least 150 by the end of 2008. The CineLive product has been developed in conjunction with International Datacasting Corporation and Sensio Technologies Inc. and is designed to work with AccessIT's satellite network and digital cinema systems equipped with 3-D technology.

As content owners across the globe prepare for the capture and broadcast of live 3-D events, AccessIT intends to further expand its satellite and CineLive network to include its planned 10,000 screen Phase 2 digital cinema deployment plan expected to begin in mid-2008. The company's alternative content division, The Bigger Picture is expected to manage the distribution of many of the 2-D and 3-D live events enabled by this network.

Visit www.accessitx.com.

Cathay, Sony Complete Install 4K Cinemas

Cathay Cineplexes and Sony have jointly announced the complete installation of CineAlta 4K_ Digital Cinema Systems, bringing the latest 4K digital cinema technology to movie-goers in Singapore.

Cathay Cineplexes at The Cathay and Cathay Cineleisre Orchard are the first to install the Sony CineAlta 4K_ Digital SRX-R220 system in Asia.

The ultra-high-resolution SRX-R220 Digital Cinema Projectors combines Sony's LMT-100 Media

Block servers and LSM-100 Screen Management System and are specifically designed for digital cinema applications.

In addition to showcasing 4K digital film content, Cathay Cineplexes is also looking forward to showcasing alternative content through the CineAlta 4K_ Digital Cinema systems. Cathay Cineplexes has been showcasing alternative content and now intends to feature such screenings of 'live' sporting events, 'live' entertainment features such as the Oscars and concerts on the Sony CineAlta 4K_ SRXR220.

Sony's CineAlta 4K_ Digital Cinema System meets the Digital Cinema Initiative's 4K image format. Around 150 units of the system have been sold worldwide.

To demonstrate the versatility of content that can be featured on the ultra-high-resolution screens, Cathay Cineplexes partnered PlayStation for a real-time PS3 gaming jam on the big screen. Audience members were invited to pit their skills against a PlayStation guru - located at E2Max @ The Cathay – through the online PlayStation Network.

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AUSTRALIAN INTERNATIONAL MOVIE CONVENTION

2008 marks the 63rd Anniversary of the Annual Australian International Movie Convention (AIMC). Taking place at the Crowne Plaza Royal Pines Golf Resort & Spa and surrounding venues on Queensland's Gold Coast from September 1st-4th, 2008, this year's convention agenda includes:

- Keynote Speaker - Tim Warner, President and Chief Operating Officer of Cinemark USA, Inc. Headquartered in Plano, Texas, Cinemark is one of the leading exhibition companies in the world with operations in 48 States across the USA and 12 countries internationally. The company operates 408 theatres and 4665 screens.
- Vista Entertainment Charity Golf Tournament - a fundraising event for Variety - The Children's Charity and the Motion Picture Industry Benevolent Association.
- 3D & Digital Technology Session. Digital Cinema demands that many elements come together simultaneously and there is no one, single player that controls the direction of the market. This session will include a variety of presentations that help reveal exactly who has the technology and commitment to succeed within this paradigm shift in the exhibition business. Chair: Bob Mayson, General Manager and Vice President, Entertainment Imaging Worldwide Digital Cinema and Services, Eastman Kodak Company.
- Demystifying Digital - A Behind The Scenes Look At Movie-making In The Digital Age. This fast-paced introductory presentation, explains the various elements of the production process, including the when, where and how a production moves into the digital realm and is made-ready for digital exhibition.

AIMC 2008 will also include product presentation & film screenings from major studios/distributors.

Visit www.movieconvention.com.au

UPCOMING EVENTS >>

Advertising & Marketing Summit 08
Mon, 21 Jul 2008
Dockside, Sydney, Australia
www.acevents.com.au/ad2008

ABE 2008 - the Australian Broadcast Exhibition
Tue, 22 Jul 2008
Manly Pacific Hotel, Manly, Sydney, Australia
www.abeshow.tv

IBC 2008
Sep 11 - 16
RAI Exhibition Centre, Amsterdam
www.ibc.org

Asia-Pacific Satellite Communication, Broadcasting and Space Conference and Exhibition
Tue, 23 Sep 2008
Jeju Island, Korea
www.apscc.or.kr/event/apscc2008.asp

Communications Policy & Research Forum 2008
Mon, 29 Sep 2008
Guthrie Theatre and precinct, University of Technology, Sydney, Australia
www.networkinsight.org

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BABBLING BROOKS

– The Last Word from Gerry Brooks

The Way We Were – Part 2

LAST ISSUE, WE looked at the pioneering days of TV for England and Australia. Now let's do the same for Europe and USA.

Simultaneous with John Logie Baird's mechanical system and EMI's electronic system in the UK, hectic activity was underway across the Atlantic in the USA, as well as around the world.

In April of 1927, just a year after Logie Baird's first demos in London in 1926, Herbert Hoover gave a speech in Washington D.C. which was transmitted by television to New York city, using 50 lines, 18 frames per second and viewed on a display tube 2-inches x 3-inches. By 1931, there were about 17 TV Stations broadcasting in the US using mechanical scanning.

In those early days receivers were sold in two parts, the receiver for Radio and TV reception and the display device as a separate box – not unlike today's trend of a digital set-top-box for reception and a Plasma or LCD screen for display.

Charles Jenkins is probably the best-known name for mechanical television in the USA, while Philo T Farnsworth is the most famous American associated with electronic television. He was the first to develop an electronic pick-up tube for image capture, which he called an "image dissector". Unfortunately, this tube had no form of storage, the electron beam discharging the illuminated element as the light was falling on that element. As a result, the tube was hugely insensitive, requiring huge amounts of light– clumsy indeed.

In the 1920s Vladimir Zworykin was working in two directions for electronic tubes: Iconoscope for the camera and Kinescope for display, patented 1923 - and all modern TV display tubes are still based on this breakthrough.

The legendary David Sarnoff of RCA saw Zworykin's demonstration eventually employed him to develop TV systems for RCA. Then things got glitchy — one of Farnsworth's early patents referred to an "electronic image" being produced in the camera tube, while Zworykin's patent application didn't. Farnsworth challenged. After prolonged court battles, and despite its unworkability, RCA ended up having to pay licence fees to Farnsworth.

The legal distractions meant that by the mid-1930s, transmissions in the US still hadn't bettered 343 lines interlaced. In comparison, by November 1936 the BBC had long been transmitting in the 405-line interlaced system. Zworykin continued development though, and in 1937, RCA was able to transmit at 441 lines. Curiously, Germany discovered a similar system of 441 lines and adopted it just a month later.

Indeed, the rise and rise of German television seems to parallel that of the Nazi party. After also experimenting with 30-line Baird systems in the early 1930s, they developed their own 180-line system, which was all-electronic, utilising Farnsworth's and Zworykin's technology under licence. Few receivers were manufactured and none sold direct to the public. To view TV programmes, people went to "Television Parlours" (Fernsehstuben) with several TV sets set up in one room, for one Reichsmark.

German television had regular schedules as early as 1935, transmitted from a Berlin facility called the "Paul Nipkow" Studio. Transmissions continued through WWII until the transmitter itself was knocked out in a bombing raid in 1943. (Back in England, TV was shut down almost as soon as war had been declared,with existing TV sets re-distributed to radar installations.)

The Berlin Olympics in 1936 were the first Olympics to be covered by television, using the electronic 180-line system and RCA (Fernseh) and Farnsworth (Telefunken) cameras. But the Germans had also developed an intermediate film telecine system similar to Logie Baird's device and this was used for location coverage. Just imagine this set-up: built into a truck, passing roof-mounted film down to the processing baths inside the truck body. Again, as with Baird's unit, a TV camera was poised above the wash bath, to enable immediate transmission. Not exactly manoeuvrable.

Berlin was also the first Olympics to introduce the Olympic torch. (My theory is Nazi moviemaker Leni Riefenstahl started this as a promo for "Olympia", her documentary on the Berlin Games.) Another name to remember in this Olympic coverage was a young cameraman, one Walter Bruch, to become famous 30 years later with the invention of Bruch Blanking, allowing our PAL colour system to happen.

France, Italy, Russia, and Poland were all transmitting television prior to WWII, both mechanical and electronic. France started with a 30-line mechanical system in 1931, but by 1935 had switched to an electronic 180-line system, transmitting from the Eiffel Tower in Paris, increasing this to 455 lines in 1938. These transmissions stopped at the start of WWII, but the Germans re-started them in 1943, though altered to their 441-line system.

Immediately after the War in 1945/6, the Americans wanted to transmit American TV programmes to the occupation troops in Germany. To cope with domestic sets then operating in 525-lines 60Hz, they modified the broadcast equipment to run at 50Hz vertical frequency, with line frequency changed from 15,750 Hz to 15,625Hz. This meant that with a minor twiddle to adjust vertical "hold" the existing TV sets could receive 625-lines/50Hz interlaced. This became the German standard, and spread through Europe with the exception of France & Russia.

When French broadcasting re-launched in 1949 they opted for an 819-lines format developed by Rene Bartholemey whose real aim was to go over 1000-lines. He achieved 1042-lines in the lab i.e., closer to what we know as High Definition TV today. However, by the 1970's the PAL system had "the numbers" throughout Europe, so France reverted to 625 lines.

Something similar happened in Russia. Starting with a 30-line mechanical system in 1931, by 1937 Moscow was on-air with an RCA supplied electronic system. Across in Leningrad (now St Petersburg) they used a 240-line system, apparently locally developed. After WWII, Russia followed France, first with the 819-line system, using a variant of the SECAM colour system called NIT. And then, they also went PAL.

The main message from all this is how exciting this new world of TV must have seemed in the 1920s, how aware people were and how much experimentation was happening in all corners of the world – all without benefit of emails or WWW for info-sharing. Apart from Reports published in scientific journals, there was a very active amateur radio network, and much discussion in radio magazines – even giving details of how to build your own TV set to receive the experimental broadcasts. Who'd be game enough to suggest a 17yo grandson build his own iPod today!

For more visit www.earlytelevision.org

Gerry Brooks is an Independent Consultant.
You can email him via gerry.brooks@gmail.com

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