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March 2009

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Broadcast News Limited

Editorial Deadline:

Five weeks before publication date.

Broadcaster, a division of BIG Magazines LP,
is published 8 times yearly.

Head office:
12 Concorde Place, Suite 800,
Toronto, ON M3C 4J2
Fax: (416) 510-5134

Indexed in Canada Business Index



Audit Bureau of Circulations

Canada

ISSN 0008-3038

Circulation audited by Audit Bureau of Circulations

Publications Mail Agreement 40069240. PAP Registration No. 11003. We acknowledge the financial support of the Government of Canada through the Publication Assistance Program towards our mailing costs. Return undeliverable Canadian addresses to Circulation Dept. Broadcaster, 800-12 Concorde Place, Toronto, ON M3C 4J2.

Subscriptions in Canada and U.S. \$45.95 for one year; foreign \$59.95 (U.S. and foreign in U.S. funds).

Single copy, \$5.00; Directory, \$46.95 each. Canadian subscribers must add GST and Provincial tax where necessary. gst registration #809751274RT0001.

For reprints call: 416-510-6871

USPS#016-247. US office of publication: 2424 Niagara Falls Blvd. Niagara Falls, N.Y. 14304-0357. Periodical Postage Paid at Niagara Falls, NY, USA. 14092. Postmaster send address correction to Broadcaster, P.O. Box 1118, Niagara Falls, N.Y. 14304.

From time to time we make our subscription list available to select companies and organizations whose product or service may interest you. If you do not wish your contact information to be made available, please contact us via one of the following methods: Phone: 1-800-668-2374; Fax: 416-442-2191; E-Mail: privacy.officer@businessinformationgroup.ca; Mail to: Privacy Officer-Business Information Group, Suite 800-12 Concorde Pl., Toronto, ON Canada M3C 4J2

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Darkness, Just Before Dawn

You've certainly heard the warnings - many of you have made them.

'Canadian television is in crisis' 'Our future is at stake' 'Better if we closed conventional TV operations'

Aggravated by changing viewing habits, changing advertising strategies and a global economic crisis, Canada's mainstream media industry says it needs help.

Solutions are being proposed, and regulator hearings will address the myriad of choices and decisions that must be made: Increased advertising airtime. Reduced commitment to local, regional or even Canadian content. Fee-for-carriage.

Not that long ago, however, the Canadian Radio-television and Telecommunications Commission, CRTC, said in a ruling that there were sufficient revenues available to over-the-air stations. It did, however, permit those stations to increase their hourly advertising minutes from 12 to 14.

Not surprisingly, people working in the domestic TV industry object to any suggestion that Canadian programming should be reduced as a way of saving money.

They say Canadian networks' spend on U.S. programming hit record levels last year — \$775 million, one of the few numbers that has actually gone up (7.4 per cent) from the previous year.

The CRTC says it will consider imposing a "1:1 ratio" rule between Canadian and foreign programming expenditures during domestic license hearings scheduled to begin April 27.

The CRTC has already turned down the conventional broadcasters' request to charge cable and satellite distributors for carrying their channels. At the time, the CRTC felt the networks failed to prove their need for the higher revenues.

That position may change.

Fee-for-carriage, if implemented, it could add something like \$10 to a subscriber's monthly bill. It could bring as much as \$300 million in revenues to the broadcasters, but would it cause a consumer backlash?

Consumers show no lack of interest in consuming content, of course, just a concern over how they pay for it, and how much. That they want media is clear. They want it in other ways, at other times, on other screens. Mobile media, Internet streaming sites, IPTV services — all are gaining some traction in the wounded marketplace.

So, while it is true that advertising dollars and viewers are drifting away from conventional television, the beneficiaries have been cable channels, specialty services, Internet properties and mobile platforms. The kind owned and operated by many conventional broadcasters. The kind enjoying the attention of a whole new generation of media consumers.

If the model of conventional TV is broken, the question 'who broke it?' has some extra relevance. It's not the fault of the broadcasters - not all by themselves. It's not the fault of the carriers — not all alone. It's not the fault of the advertisers — not entirely. It's not the fault of new technology, not if taken in isolation.

So, solutions cannot be taken in isolation, either. Remedies must be broad, fair and effective so as to keep the Canadian broadcast industry creative, healthy and dynamic.

It's not by coincidence, then, that this issue has stories in which our creativity, health and dynamism is apparent: In iconic sports broadcasting content. In experienced people, working with advanced new production gear. In a whole new generation of broadcasters, eager to get to work.

That, as they say, is not a warning — it's a promise!

B

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Cultural Preservation Depends On Digital Audio and Post Production Techniques and Technologies

State of the Art Treatment for New Version of 'Second National Anthem'

By Lee Rickwood

In what is seen — and heard — as the largest fully digital sound recording session of its kind, Canada's second national anthem was lovingly recreated and recorded using state of the art digital microphones and surround sound equipment.

The new version of 'The Hockey Theme' surely echoes the original 1968 composition, maintaining the familiar core melody and rhythmic structure. At the same time, the tune has been digitally updated, refreshed and reversioned, so that a number of new arrangements and optional treatments are now available.

CTV Inc. created the new recordings of 'The Hockey Theme' following its June 2008 acquisition of all rights to the composition in perpetuity. As a result of the digital recording sessions, CTV is preserving the song's legacy and is ensuring it will be heard on national television for years to come, and not just on TSN, RDS or CTV hockey telecasts. The theme will have a significant role in the broadcast coverage of the 2012 Olympics, as well, CTV says.

The importance of the new version, in both musical performance and technical production terms, had to be top notch.

So, 52 musicians from the Toronto Symphony

Orchestra, under the baton of renowned conductor Darren Fung, were engaged to perform.

As well, throughout the process CTV consulted closely with Vancouver's Dolores Claman, the song's original writer. What's more, Peter Houston, the engineer on the original recording (and a long-time collaborator of Claman's) along with John Ciccone, music consultant and former rights administrator of 'The Hockey Theme', worked on the musical performance aspects of the project.

On the technical side, the job of chief engineer on the recording fell to Michael Nunan, CTV Television's Post Audio Supervisor, along with his team of operators and engineers, and what would turn out to be an unprecedented collection of digital microphones and related technology.

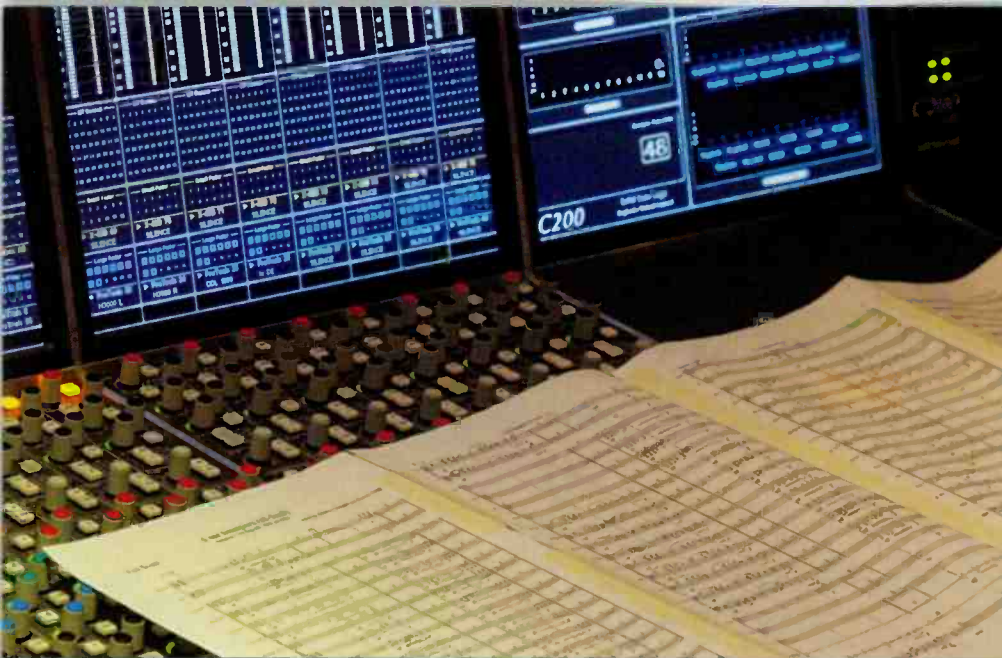
The mic kit was actually bigger than he could pull together with existing resources; it was supplemented when German microphone manufacturer Neumann, the company president and the Canadian distributor all came together to provide additional gear - in total, more than 30 digital mics were used in direct or array set-ups.

In some ways, the assignment would be a "proof of concept" for all-digital field / location recording. But, as Nunan noted, "Failure was not an option. We had to exercise great care in making what was more than a first class restoration, it was a new digital recording that would live on in the hearts and minds of hockey fans across the country."

Under the baton of conductor Darren Fung (left), musicians from the Toronto Symphony Orchestra brought new life to an old favourite. Supervising the digital recording of The Hockey Theme was CTV's Michael Nunan, Post Audio Supervisor, shown at the control console (right). A key participant was Wolfgang Fraissinet, President of Marketing/Sales at Neumann, supplier of much of the technology used.



PHOTOS BY DAVID MIDDLEY



It's an iconic anthem, but reading the old score and recording the new version had its challenges. People and technology combined to meet that task - for example, a chain of MacBooks was implemented to provide control interfaces between advanced digital microphone systems and a master control unit in the remote truck.

day, to give more control over that particular sound, Nunan described.

He had a remote recording control room brought in, courtesy of Doug McClement and LiveWire Remote Recorders. "We have a long and productive relationship with Doug," says Nunan. "But in a way, it's been under-utilized. Despite not being a "live" production, for which Doug is rightfully well known - this job pushed the technical and creative envelope in a few directions, and Doug was a fantastic asset."

The LiveWire mobile is a 32' long air-ride trailer, with a tape room, control room, and maintenance room in its expanding chassis. The truck is equipped for full 5.1 surround sound monitoring, and has a 96 input SSL C200 board along with 96 channels of ProTools HD record capability.

The mic kit Nunan utilized on the session reads like a tech spec sheet for AES-42, the Audio Engineering Society's specification for the digital audio transmission and remote control standards. Most were Neumann's, which makes perfect sense, as the company was very involved in the drafting and establishment of the standard.

Nunan had eight D-01s, seven KM 183D omni seven 185D hyper cardioid, and ten KM 184 D cardioid mics, all from Neumann. The digital

Despite the importance of the project, some will still wonder if a state-of-the-art, fully digital surround sound recording isn't a bit of techno-overkill. First off, there is no little expense involved in a digital remote recording session. Secondly, a lot of TV viewers still aren't watching HD, or if they are, a lot aren't listening to full 5.1 surround sound. (For that matter, not all broadcasters actually deliver a true 5.1 surround sound with their HD signal - but CTV does.)

So, was the hockey session overkill?

"Negative!" comes Nunan's succinct reply. He can and will speak knowingly and passionately about the quality of digital sound today, and the immersive, emotional impact that surround sound can create for the TV audience. He knows that those who master the new technology will have new ways of telling stories, more effective and more engaging ways, but he also knows that may not win in the final argument.

"Knowing the creative advantages, knowing that they can be spectacular wouldn't get us there, I had to have other reasons beyond quality," Nunan explains. "I needed an ROI argument."

And by using digital equipment throughout the recording process, he got that, too. Something as simple as the sound check can help save money, if you do it well enough and fast enough. With 50-plus musicians on hire, and a concert hall large enough to hold them all being rented, every minute was an expensive one.

Nunan notes that he was able to complete the sound check, with 52 performers and 32 microphones, in about six minutes! More to the point, from just a two-day recording session, he was able to record, master and deliver the main opening theme within thirty hours of the session!

What's more, a total of 39 cues were recorded and delivered in both 5.1 and Lo/Ro (left only, right only) stereo mixes, and some custom mixes for cell phone ring tones and even beer cases (a marketing and promotional campaign gave away some thousands of small sound devices that played back a Hockey Theme mix).


The two-day recording session was booked at the Living Arts Centre in Mississauga, ON.

Its Hammerson Hall concert facility is one of the few around that could not only accommodate the large performing orchestra and technical crew, but that also had the acoustic characteristics and aural ambience required.

One day of set-up was followed by actual recording sessions, with a 21 piece brass band kicking things off. Day Two would see the full 52 member orchestra perform. A smaller rhythm section - electric bass and drum kit - were recorded as overdubs in the afternoon of each



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Fifty two orchestra musicians, a brass ensemble and a small rock combo all contributed to the new recording, done in a remarkably short time. A large number of ambient and direct mic'ing techniques were used, and the session marked one of the largest deployments of the Neumann digital Solution D mics (below), each connected via 'DMI beach' (at right, below) to console and recorders.



mic collection was augmented by 'conventional' microphones to specifically address the Surround nature of the recording: a Soundfield ST350 ambisonic microphone, a Holophone H2-Pro surround microphone, and a prototype microphone array from Neural Audio were also used.

Neumann Germany provided as many as 17 additional microphones especially for the hockey sessions to augment CTV's own Neumann digital microphone complement, "making this the largest single deployment of this technology in North America to date", according to Wolfgang Fraissinet, President of Marketing/Sales at Neumann.

Although the D-01 microphone looks similar

to an analog mic, it is unique in its configuration with an A/D converter 'built in', receiving the output signal directly from the capsule and converting immediately into a 28-bit signal with a dynamic range of more than 130 dB.

"Solution D" as Neumann calls it therefore does not rely on intermediate analog stages and is not limited to present-day PCM standards. It also eliminates sonic colorations of a mic pre-amp and removing the possibility of noise pickup in the signal path.

Other mic functions, like gain, low cut and pattern selection, can be remotely controlled, using an AES 42 interface (the DMI-2) and remote-control software to address each compatible microphone used in a record session.

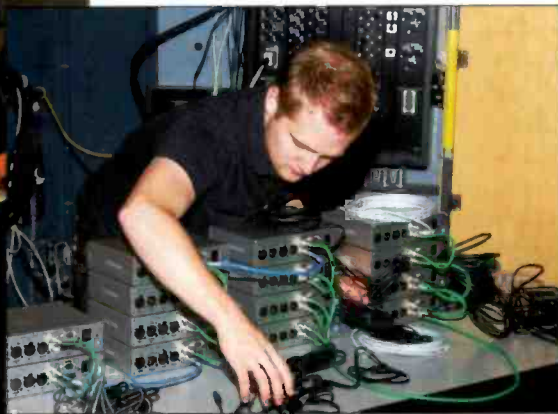
Using on-screen controls, mic settings can be set, adjusted and changed as needed, so very fast tests and checks can be done. The operating status and parameters of all connected microphones can be monitored during production, and the settings can be quickly and easily changed if necessary. It is also possible to monitor signal levels on the screen.

For the hockey sessions, that meant creating a "DMI beach", as Nunan calls it, using a chain of Apple MacBooks to interface between the mic controls and a master control unit in the truck. The AES3 outputs of the DMI-2 interfaces were carried back to the truck on an Optocore fibre network. In addition to transporting 16 stereo AES signals to the SSI console, the Optocore system also provided a mechanism for delivering Clock signals to all of the microphones, as well as allowing for the Ethernet traffic required to remotely control the MacBook computers from inside the truck.

Nunan's goal in actual mic-ing and placement was to capture a dynamic and spatial feel, one that accurately reproduced the voice of the instruments, and put them into a large space that could audibly recreate an arena feel. Strategic mic placement meant the instruments, ambient and hall sounds all had to be captured accurately.



"We captured the event from every conceivable sonic angle. We knew that we'd never be able to do this again, and we also knew that we needed to cover all our bases in terms of what could be asked for during the mix. Given all the tracks at our disposal, we could virtually move through the space," he says, switching between individual recordings of the discretely placed microphones, but teasing to the sophisticated



home theatre environment. Nunan used specific spot mics through the musician's performing area, with secondary arrays placed at distance and the neural array and the Holophone placed high in the hall.

With so much technology being used, and with so much history at stake, the levels of trust and confidence among the musicians, technicians, producers and arrangers, had to be at their highest, especially during the two-day recording session.

As Nunan mentioned, within days, the new Hockey Theme was on air! Its debut (on RDS) was October 10th, and on TSN, October 14th. It will be played more than 115 times during the 08/09 broadcast season alone.

"We take great pride in blending the heritage of this song with the best digital technology available," Rick Brace, CTV President, Revenue and Sports, said of the new theme and the methods used to capture it. "I think we've created a stunning rendition that's sure to resonate with the fans." **B**

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Great Sports Programming a Real Achievement, But Two Hundred Grand Doesn't Hurt

by Dick Drew

Take it from me, Canadian produced syndicated radio programs are tough to keep on the air.

Over the years, I have produced and syndicated over 5000 episodes. Some in French, some in English. Some were barbers. About 3000 were "Canadian Achievers".

No matter, it's tough, and for the following reasons:

- After a while national sponsors want something new.
- After a while, station PD's want something new.

There are 50 other reasons, but you get the picture.

That's why I pay tribute (and hope you will join me in doing so) in this column to the 25th Anniversary of *Grapeline*, the daily syndicated radio sports program.

It's the co-creation of three of the best in the business, as it is hosted by Don Cherry and Brian Williams, and produced by Prior Smith.

Would you believe they launched the show on a handshake?! And now 25 years later, these three amigos still go to work on the basis of that handshake (and they still like one another)! Wow!

Of course, it helps if, in one of those shakin' hands, a cheque for \$200,000 is held!

That's just one of the stories in Don Cherry's new book *Hockey Stories & Stuff*. He tells many others. It's a hoot!

But recalls the wonderful story of how he first approached CFRB to host a sports show. Prior Smith, a producer at the station at the time, was charged with explaining to Don how, sorry, but there is already a long line of people wanting to do just that.

But Cherry handed Smith a cheque from Bridgestone Tire for \$200,000 to sponsor the show! That's 1984 dollars, by the way, probably worth like billions today!

That powerfully simple act of commerce

immediately convinced Prior Smith and CFRB that a show with Don Cherry was indeed a very good idea. Prior then convinced Brian Williams to co-host and the show was off and running.

Over the years, it moved to Telemedia for a while, but it now is produced at Rogers' The Fan 590 in Toronto, from where it is syndicated to about 100 radio stations across Canada and by Internet around the world.

Each of the amigos — Don Cherry, Brian Williams and Prior Smith — is a Canadian Achiever on their own merit.

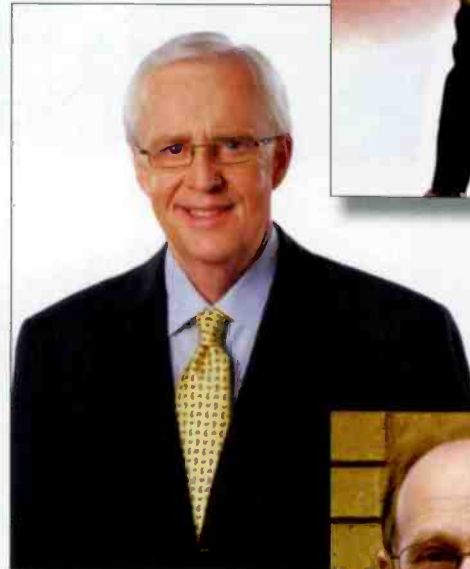
Don Cherry because he is Don Cherry, need I say more. Read his book, it's all delightfully there. He talks openly about his many ups and downs.

He's also a very interesting interview because he gives straight answers, such as when I asked him why did not ever give up:

"Dick, I would like to say it was my character and upbringing. It was hunger, when you have no education, no trade and you are down and out as the old saying goes, nobody knows you when you are down and out and nobody was going to take it from me when I made a come back because I've been there and it ain't nice."

I believe him when he says he has no idea of how much money he earns. I also believe him when he says, "Everyday I thank the lord that he was kind..."

"Never in my wildest dreams," he continued, "did I ever think that I would be in the position I am now. All I wanted was to have a job in construction! Broadcasting and media never entered my mind. I was told I would never last



Don Cherry, Brian Williams and Prior Smith (top to bottom) are the 'Three Amigos' responsible for some iconic Canadian programming, both for radio and TV.

a month on the air with my English..."

Don's delivery and his vocabulary are definitely part of the sizzle, and part of the reason he's been successful with TV with *Coaches' Corner* for 25 years (10 with co-host Dave Hodge, 15 with Don McLean) and on radio for

25 years with *Grapeline*.

Working the other side of the Grapeline microphone is Brian Williams.

To better understand where Williams gets his energy, drive, determination and integrity, you have to take a moment to read the story of his remarkable dad, Dr. Kenneth Williams

(At www.canadianachievers.com, you can find a free downloadable version of my book, *The Canadian Achievers*, with that remarkable story. Brian's dad, now 93, is still active, and he was in South America when I spoke with son Brian for this report. Dr. Williams is a remarkable person as is his son; achieving is in their genes.)

Brian was born in 1946 in Winnipeg but raised in Hamilton, where he developed a strong steel town determination common to people from Hamilton. It has helped make him one of North America's premier sportscasters, starting way back when with the Memorial Cup broadcast in the early 70s, from the old Montreal Forum.

Stints followed with CFRB and CHUM followed until 1974, when he began freelancing for the CBC. He continued as a freelance sportscaster for 32 years until June of 2006, when he shocked the sports world by announcing he was moving to rival CTV/TSN.

"I left the CBC for an opportunity of a lifetime," he explains. "That's to work a 3rd Olympics in my own country, the 2010 Winter Games Vancouver, and to be part of building an Olympics team at CTV."

He is already making plans for the 2012 Olympics in England, which will be his 14th Olympics! That's added to a long list of major sports he has also covered, including Blue Jays baseball, 25 Grey Cups, figure skating, hockey, the Brier. You name a sport, Brian has not only broadcast it, he will quote names and stats from it, up until the cows come home.

But I had to ask Brian the one question really on everyone's mind: "What's it like working with Don Cherry?"

"He is exactly as he looks and sounds on TV and radio," Williams begins. "People might not always agree with him, but they know he is straightforward and honest. And of course he is always entertaining. He's as fresh and vibrant at 75 as he was in his 40's. When we started back in September 1984, he wondered if he

had enough good stories to last until Christmas. Here we are decades later and he hasn't scratched the surface. Don is an unbelievable storyteller."

The glue that holds *Grapeline* together and helps keep the stories on track is veteran broadcast and show producer & co-creator, Prior Smith (and their brilliant broadcast editor Stan Matacki at Rogers). It was Prior who looked at the \$200,000 cheque Cherry was holding and said "Let's do it!"

They have been doing it ever since.

Prior's voice is well known throughout the southern United States where for 31 years, he's been the voice (and the owner) of the daily radio series *Canada Calling*, now in its 50th year. The program is produced and syndicated out of his own home studio. It airs during the winter, keeping Canadian snowbirds up to date with Canadian news, weather, stock market information, and

— of course - hockey scores.

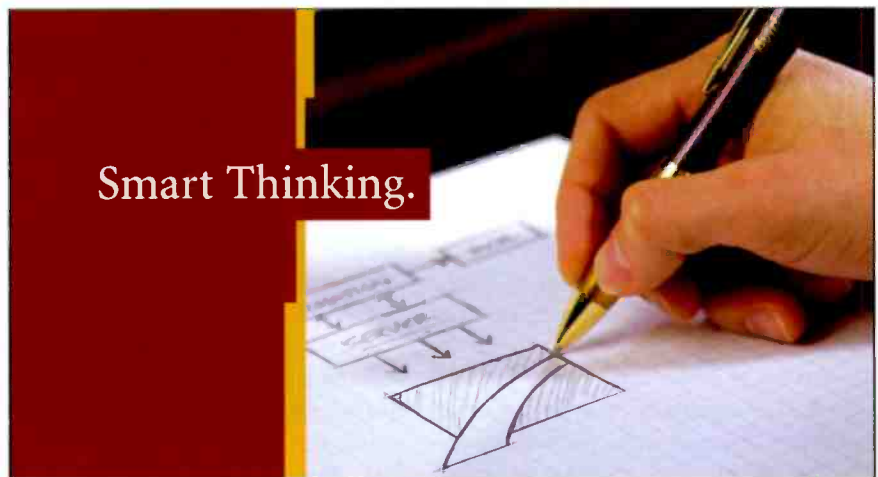
Between producing episodes of *Canada Calling* and episodes of *Grapeline* from November to April, Prior seldom has time to wipe his nose, but he still seems to have all the help he needs

"The people who work on *Grapeline* bring unique talents to the studio each week," Smith explains. "The show is all about story telling. In that regard Don is in a class by himself. Brian is the ultimate radio pro. The two clicked from day one. As a producer, I learned a long time ago the best thing I can do aside from steering the ship is to get out of the way. When you are working with talent like this, the secret to success is the fact that just about everything is unscripted and first take. The show is seasonal so every six months, we have a chance to be fresh."

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Media Support for Media Fund

The Government of Canada announced major changes to what was formerly the Canadian Television Fund (CTF), and unveiled the new Canadian Media Fund as a replacement.

The CMF will be created as the Canadian Television Fund and the Canada New Media Fund are combined, reformed and rebranded through a renewed partnership with the industry. Its mandate will be to ensure the production of quality content and to make it available on multiple platforms.

The announcement was made on the set of *Flashpoint*, a television series that is broadcast on conventional television and is also available online.

Joining the Minister were Chris Frank of Bell Video Group, Phil Lind of Rogers Communications, Pierre Karl Peladeau of Quebecor/Video-tron, Ken Stein of Shaw Communications, Mark Bishop and Matt Hornburg of marbledmedia, and Tim Casgrain of CBC/Radio-Canada.

"The Canada Media Fund will help our producers and broadcasters to do what they do best: create, entertain, and connect with Canadians," said Minister Moore. "We are confident that the broadcasting and interactive digital media sectors will continue to contribute to Canada's economic well-being and will benefit Canadians from all regions of the country."

The reformed and integrated fund will be fully implemented and in place by April 1, 2010.

CBC/Radio-Canada says it applauds the Government's efforts to simplify the overall funding process and to improve governance and accountability of the Fund by ensuring that all directors will be independent.

"CBC/Radio-Canada is encouraged that the Government believes first-run, prime-time Canadian programming is as important as we think it is," said Hubert T. Lacroix, President and CEO of CBC/Radio-Canada. "The new Fund is designed to make sure that Canadians have access to more of the popular drama, comedy and children's programming that they want to watch, when, how and where they want to watch it. More of that can only benefit Canadians and the Canadian broadcasting system."

CBC/Radio-Canada says the changes should modernize the Fund and improve it through better governance, simplification of process and a focus on innovation.

"What is essential now is to make certain that the principles laid out today are respected as the broadcasting industry moves into imple-

mentation," added Lacroix. "The challenge is to ensure that the Fund focuses on new programs shown when most Canadians are watching. If it's done right, the model will be a success. If it isn't, CBC/Radio-Canada is concerned that the elimination of our 37 per cent envelope will lead to a reduction in viewing to Canadian programming in prime time."

The 37 per cent envelope formerly dedicated to CBC/Radio-Canada enabled the Corporation to address a critical shortage of first-run Canadian programming in prime time. It allowed the Corporation to commit over \$100 million annually to the production of original drama and comedy — which is approximately 50 percent more than the commitment of the entire private conventional broadcasting industry combined.

The \$134.7 million annual fund to stimulate domestic television production in Canada is receiving broad industry support.

In a written statement, the fund was called "good news for the industry" by Pierre Karl Peladeau, president of Quebecor and Sun Media. "A Canadian fund driven by performance and quality-related criteria is a positive development," Peladeau said.

CTV also welcomed the creation of the Canada Media Fund.

"In this ever-changing media landscape, we agree that all broadcasting regulations must be continually reviewed to ensure their ongoing relevance," said Ivan Fecan, President and Chief Executive Officer, CTVglobemedia and Chief Executive Officer, CTV Inc. "Congratulations to Minister Moore for recognizing the importance of audience success and for putting the audience first in the creation of this fund. All of us in media exist to serve the audience."

CTV also applauded the proposal striking down antiquated rules that prevented broadcaster investment in the creation of high-quality Canadian programs for both broadcast and digital platforms.

D-Box Shakes Up Theatrical Experience

A Montreal company is adding another dimension to movies — movement. It is using a new technology to synchronize on-screen movie action with the movie-goers' theatre chair.

Universal Pictures' action-thriller "Fast & Furious", released April 3, will be the first theatrical feature to use its D-Box Motion Code technology. Montreal's D-Box Technologies says it will have two theatres deployed with exclusive

viewing areas equipped with special D-Box-enhanced seating.

Using its patented technology, D-Box uses motion codes specifically programmed for each film, TV program or video game, which are sent to a motion generating system integrated within either a platform or a seat. The resulting motion is synchronized with all onscreen action, the company describes, creating an unmatched realistic, immersive experience. To date, D-Box Motion Code is available on more than 850 video titles, and embedded into Blu-ray format releases.

"We are very proud to showcase our immersive D-Box Motion Code technology with 'Fast & Furious' from Universal," stated Claude Mc Master, president and chief executive officer of D-Box Technologies. "This will be a first for moviegoers as they will be able to not only watch the movie, but also feel the action like never before in a commercial theatre environment."

A D-BOX demonstration kiosk will be installed in each theatre's lobby prior to the "Fast & Furious" release, giving patrons the opportunity to test drive D-Box's immersive movie experience.

End-to-End Network Video Solutions from Hai Vision

HaiVision Systems, the Montreal-based H.264 encoders and codec systems vendor, announced plans to merge with IP delivery company Video Furnace and become HaiVision Network Video. Combined, the companies will offer end-to-end high-definition (HD) H.264 IPTV platform for education, corporate, medical, and military video-over-IP distribution systems.

"The combination of HaiVision and Video Furnace technologies delivers the most advanced solution for H.264 IP video distribution," said Mirko Wicha, president and CEO of HaiVision Network Video. "Our integration partners and customers are very excited about having a single-vendor solution in this fragmented market space."

HaiVision develops the highest performance H.264 encoder hardware, which incorporates the company's MAKO-HD codec to deliver 1080p HD over IP networks with an imperceptible 70 milliseconds of end-to-end latency. Video Furnace develops IP video distribution systems with full recording and video on demand (VOD) functionality.

CTV Streams Online Content in HD

CTV started streaming HD content, offering select titles through its Internet video player in high-definition format in a test of Akamai Technolo-

gies' AdaptiveEdge Streaming service.

"In response to the ever-growing demand for engaging online content, we've made a strong commitment to delivering the highest quality video streaming experience for our consumers," said Stephan Argent, CTV's Vice-President, Digital Media. "Experimenting with Akamai AdaptiveEdge Streaming will be an excellent learning initiative for us and is a reflection of our ongoing efforts to evolve the user experience to a new level."

Akamai AdaptiveEdge Streaming for Microsoft Silverlight adapts stream quality based on a user's connection speed, and enables high bandwidth connections to receive true HD (720p+) quality streaming while consumers with lower connection speeds can receive the highest-quality video stream available for their levels of connectivity.

CTV has worked with Akamai for years to deliver high quality online video, and the broadcaster launched a pilot to showcase key titles available online in true HD, via Akamai AdaptiveEdge Streaming, in an effort to better understand audience reaction to higher-quality content. The CTV HD Beta Player will allow fans of some of CTV's top original shows to watch in clear, HD streaming video format while enabling the broadcaster to solicit feedback from users.

Specialty Data Systems Builds Sales Team

Specialty Data Systems of Toronto, a leading North American provider of broadcast management systems, appointed Shane Harris as Director of Sales.



Shane Harris

In his new role, Harris — based in Boise, Idaho — will be responsible for the account management of SDS' client base in the U.S., including radio, television, cable, interactive and sports networks. Well known for his work in broadcast traffic and sales operations management, Harris comes to SDS after more than 10 years with Hailey, Idaho-based Marketron Broadcast Solutions, where he was most recently National Sales Manager.

"Shane is well-respected in the industry for his ability to help broadcasters become more efficient," said Dave Cole, SDS President and CEO. "His experience, combined with SDS's 20 years of success in delivering innovative broadcast software systems, provide our U.S. clients with a unique and proven value proposition."

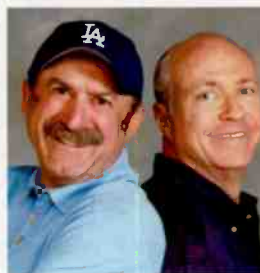
With an additional SDS office scheduled to open in the U.S. in 2010, Harris will lead the

company's U.S. expansion efforts to provide broadcasters with operational integration of all their departments into the SDS Symphony system, the company's flagship broadcast management software.

The Giant Gets Larger Than Life

105.3 The Giant in Thunder Bay will become the first Canadian home for "The Bob & Tom Show".

105.3 The Giant, a Newcap radio station, was the first in Canada to air "Nights with Alice Cooper" and the station says its breaking new ground again, letting what it calls "one of the biggest radio shows in the world" take over afternoons in Thunder Bay.



Bob & Tom

Bob & Tom are currently heard on over 100 radio stations every day across North America. Bob & Tom are five-time Marconi Award winners, the only show to win the award five times. They are also three-time radio and records classic rock personalities of the year and two time Billboard Magazine Radio Personalities of the Year Winners.

Sandra Dolynchuk, Program Director at 105.3 The Giant, reports they made their Cana-

dian radio debut on March 16th.

QuStream Appoints New VP and General Manager

QuStream Corporation, Toronto-based high-definition (HD) broadcast solutions provider, announced that Charles D. Tillet has been appointed as VP and General Manager of QuStream effective immediately.

Tillet has over 30 years' experience leading dynamic organizations in the electronic industry. He has held various senior positions, including most recently, President and COO of Innovative Technical Services.

"The company is pleased to have someone of Mr. Tillet's caliber and the entire team looks forward to working with him as we continue to strengthen the organization to support the continued growth of QuStream", said Howard Sutton, President and CEO of QuStream.

TV Series Uses Micro-site to Drive Characters, Plotline

A new Global TV series takes a step beyond television with multi-platform features that push the show's storyline and expand the viewer experience.

Harper's Island is an all-new modern-day 'whodunnit' that unfolds and concludes over the course of 13 chilling episodes, programmers describe. Each week, a victim falls prey to a mani-

continues on page 27

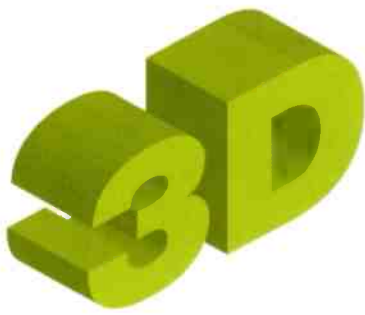
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DANCING ON THE

New Techniques and Technologies for Creating, Delivering and Displaying 3-D have Distinctly Canadian Flavour

By Lee Rickwood

It's a firehall, not a movie studio! And it's more than a stone-throw away from the city's so-called Film District, where huge sound stages reside.



Station 334 doubles as a 3-D commercial production set (note the studio lights through the glass garage door at right) as producer/director James Stewart, above left, reviews the 3-D camera set-up with crew members.



But, sitting alone on the water's edge, nestled in Toronto's central Harbourfront district, Fire and Marine Station 334 is this day home to a very special cinematographic production.

It's the site for one of the first 3-D commercial shoots ever staged (strictly speaking, it's a PSA), so it provided a rare glimpse inside the world of state-of-the-art digital media production, and look towards the future of TV, movies and mobile content.

Toronto-based Geneva Film Co. producer/director James Stewart was in charge of the production, in which a powerful public service announcement, on behalf of first responders like fire and emergency services, is being created.

The spot was commissioned by the Tema Center Memorial Trust — a national charity that helps emergency services personnel understand and cope with the effects of Acute and Post Traumatic Stress Disorder (PTSD).

To underscore the emotional message and the visceral connection with the audience, the spot was shot in 3-D, and will screen in 3-D equipped cinemas beginning in April. But it could also be watched on 3-D enabled mobile devices (which are now available) and on 3-D TVs (which will soon be).

Of course, the spot will be simultaneously

PHOTO CREDIT: CELVAN DESROULEAUX

PHOTO CREDIT: LEE RICKWOOD



COMPOSITE PHOTO ILLUSTRATION: BILL WHITE AND ERIC WHITE

No, you do not need glasses....

Advances in autostereoscopic displays and convergence camera rigs are making 3-D media production, such as this PSA shoot in Toronto, and 3-D content delivery a reality - and without the goofy glasses of yesteryear.

prepped for 2-D delivery, on conventional TV and the Web, Stewart explains.

But it's the 3-D aspect that has drawn us to this unusual location - along with a very unusual looking camera rig.

Stewart began working in 3-D back in 2005, and is one of a select group of film directors actively shooting commercials in Live-Action Digital 3-D. "We are working on the leading-edge of the 3-D phenomena — a medium which has the potential to transform not only the advertising world, but all media — gaming, hand-held devices, and cinema as we know it," says Stewart. "This project marks the world's first 3-D PSA - and capitalizes on a fantastic new medium for a good cause. Coming on the heels of the world's first 3-D television commercial for Pepsi during the Super Bowl, this 3-D PSA is a clear demonstration to advertisers and marketers of the

versatility and power of 3-D for communicating emotional, as well as entertaining content."

For this shoot, Stewart worked with gear from 3-DCC, the 3-D Camera Company, which was founded and is based in Toronto.

The 3-D Camera Company (3-DCC) is a partnership between William (Bill) White and William Reeve. The offices of 3-DCC are located in Toronto, Canada and Berlin, Germany.

3-DCC is a partnership between Bill White and William Reeve, well-known and established cinematographers, who entered into a cooperative venture to develop and rent specialized stereoscopic (3-D) image capture equipment for the motion picture entertainment industry.

A new protective case for the iPhone, developed in Canada, enables engaging 3-D content delivery on portable devices.

Broadcasters Delve Into 3-D Game Development

Broadcasters and specialty channels have built successful businesses by delivering flat, 2-D images to the home. Now, some of the more visionary companies are moving to the third dimension, and using mobile devices.

Astral Media already owns some 20 specialty channels, and it operates nearly 100 websites (in addition to being one of the country's largest radio broadcasters). Yet, it is now involved in a development project for 3-D gaming on popular portable digital devices like the Apple iPhone.

"We are excited to extend Family Channel's engagement with young Canadians to include the development of innovative gaming on this highly interactive platform," said Barbara Bailie, Director, Interactive, Astral Television Networks. "Gaming remains the most popular activity on our website, Family.ca, so we're keen to extend our reach into gaming by having our Ontario-based Interactive team work closely with cutting-edge developers to

deliver Family's experience to kids on the move."

With seed money from the Ontario government, and help from developers at Spatial View and the Sheridan College Visualization Design Institute, a new glasses-free 3-D mini-game is in development for Family.ca, to be called *Carnival Craze*.

Family provided sponsorship, creative and brand direction based on their familiarity with online game-play content for audiences aged eight to 14.

The game is played and viewed in natural 3-D using a 3-DeeShell from Canadian manufacturer Spatial View. The shell includes a stereoscopic overlay (a '3-Dflector', or 'parallax barrier') that enables 3-D display on a flat PC or TV screen.

For mobile media users, the 3-DeeShell has a similar polarized 3-D viewing overlay fitted into a protective case, letting users see specially-encoded media with an

The company developed a stereoscopic rig system, on which two ARRI 235 35mm MOS cameras are mounted.

The fully synchronized cameras are specifically modified and mounted on a convergence system to control stereoscopic depth. All the 3-D parameters can be adjusted 'on the fly'.

Stewart (who has worked with many other 3-D systems and many other cameras attached to them) says that variable interocular conver-



apparent third visual dimension.

Spatial View is also making 3-D content creation tools and plug-ins available, connecting to popular digital media platforms like Flash.

Spatial View is also working with high-tech manufacturer Texas Instruments on its 3-D mobile solutions. Spatial View 3-D prototype will enable TI's OMAP development platform to playback and vivid glasses-free 3-D images and videos. The high-performance, low-power consumption OMAP processors are said to permit manufacturers like SpatialView and others to bring to market new, multimedia-rich handheld devices.

Spatial View also provided advisory and collaborative support to the project. The Sheridan Institute helped design the game, working with Spatial View's development team.

gence rigs, in which camera motion and distance between them can be remote controlled, are crucial for doing dramatic sequences, or shooting in enclosed areas.

"Convergence means you can vary the distance between the cameras, bringing it down to about an inch or so. You can't really do that with cameras mounted side-by-side on a support platform, you really need a convergence rig. It's very versatile, and yes, very expensive, but it's the way to go," he says.

Being able to vary that distance, to 'tow the cameras in' can be equated to converging or

focusing our own eyes. If you were to focus on something very close to your nose, your eyes converge, and you go a little cross-eyed. We don't usually focus back and forth, between things six inches and 20 feet away, but that is what can happen in a 3-D production.

Cinematographers, camera operators and now stereographers on a production set have to be wary of creating a muscular strain, a visual strain, in the audience who watches 3-D content.

The stereographer, usually a knowledgeable cinematographer with added 3-D experience,

is the newest member of the production crew, Stewart explains, noting that directing, staging, blocking, traditional notions of camera composition and movement all have to be re-thought while working in three dimensions.

"We have to realize we now have control over people's eyeballs," he says. "Much in the way we massage their ears with the soundtrack, we can now massage their eyes. So we need to storyboard a film or commercial carefully in 3-D."

Part of that need is viewer safety!

Stewart points out that 3-D filmmakers and cinematographers must be aware of how they

Digital Cinemas Serve Up 3-D Sports and Live Event Broadcasts

The first live 3-D event broadcast to Canadian cinemas was a big success, and it will lead to further such broadcasts, and wider adoption of 3-D technology overall.

"The event was loved by fans and was very well attended by industry insiders and content providers looking to preview this new cutting edge technology," reported Dean Leland, Vice President — Studio & Media Relations for Empire Theatres. "We were the exclusive (and first Canadian) cinema partner for this event so it was an exciting one for all of us."

Empire Theatres, the National Basketball Association (NBA) and the Cinedigm Digital Cinema Corporation broadcast 3-D coverage of the NBA's All-Star Night to the Empress Walk theatre in North York, ON.

The fully marketed deal also brought the 3-D broadcast to more than 80 theatres across the United States.

The technology used was developed in Canada — by Cinedigm in conjunction with International Datacasting Corporation, based in Ottawa and Sensio, based in Montreal, Leland described.

Sensio CineLive enables either 2-D or 3-D content, such as sporting events and concerts, to be broadcast live in digital movie theaters. It uses the Sensio 3-D movie decoding technology and the IDC SuperFlex DVB-S2 broadband transmission technology. It is designed to work with Cinedigm's satellite network and digital movie systems fitted with 3-D technology.

"Although several 3-D broadcast tests have been performed over the past two years, this is the first commercially viable event of its kind and we are extremely proud to be a part of it. We have been able to stay one step ahead of the industry and, now that the interest in Live 3-D is becoming more real, our technology is not only ready, but it also is the only one to be integrated in a theater network," said Sensio President and CEO, Nicholas Routhier.

"Empire Theatres and Cinedigm are the ideal partners to work with in delivering the next evolution of 3-D HD to our fans in Canada," said Dan MacKenzie, General Manager, NBA Canada, Inc. "We have embraced 3-D HD as a new and innovative way to experience the excitement of our game. We look forward to basketball fans at Empire Theatres Empress Walk having a courtside seat for All-Star Saturday Night."

For the special broadcast, Empress had a new satellite dish

installed, as well as new decoders to enable presentation. A capable digital projector was already in place.

"Fans they said enjoyed the game from the comfort of high back seats, and that the exceptional sound and 3-D visual technology was a thrill to experience," Leland added. "There are 240 seats in the auditorium at Empire Theatres Empress Walk where we held the event, and by show time, there were only a handful of seats left. For all intents and purposes, a sell out! During the event, we held trivia contests with the audience to award autographed NBA merchandise."

"Cinedigm is the only company that can deliver Live 3-D broadcast on this scale to cinemas and we are thrilled to be working with the NBA and Empire Theatres on this event," said Bud Mayo, Chairman and CEO of Cinedigm. "Whether it's bringing live 3-D events or 3-D movies to theatres or allowing theatres to custom-tailor the content they deliver to moviegoers, we are bringing new cinema-based entertainment options to consumers and new revenue streams to theatres," he added.

Cinedigm's digital cinema platform and satellite delivery operations support more than 3,700 theatre screens across the United States with over nine million digital showings of Hollywood features to date.

The company has been granted its first main patent for its distribution and formatting technology of stereoscopic contents on different 2-D or 3-D screens, covering the method it has developed and marketed for the distribution of 3-D content over conventional 2-D distribution channels.

Several live 3-D sporting events have been broadcast to theatres - and paying audiences - across the United States and Canada. First, the FedEx BCS National Championship Game was broadcast to some 80 digital movie theatres in 35 states across a network belonging to Cinedigm Digital Cinema Corp. Then, the NBA All-Star game received the same high tech treatment.

Empire Theatres Limited with its corporate headquarters in Stellarton, NS and regional offices in Halifax, NS, Toronto, ON and Calgary, AB, is a 100% owned subsidiary of Empire Company Limited. Empire Theatres owns and operates 52 theatres, with 386 screens across Canada (including one IMAX Theatre in Halifax) from Newfoundland to British Columbia.



Two ARRI 35mm cameras and a mirrored reflective surface are mounted in this 3-D shooting rig.

The production crew includes: James Stewart Producer/Director; Paul Taylor Co- DP/Stereographer; Tim Bewczyk Co-DP; Marco Willis - Key grip; Michael Soos - Operator; Cylvan Desrouleaux 1st AC Convergence; Dave McCain AC; Danial Campbell PM/1st AD

3D camera by 3D Camera Company; Stock by Kodak; Transfer by Technicolor; Stereo Post work by Creative Post; 2D post work at Geneva Film Co

use or manipulate the point of convergence (foreground focal points) as well as divergence (like background point of reference).

"If you try something simple like focusing your eyes on your finger in front of your face, your eyes are converging on that spot, kind of like cross-eyed. And, in reality, the background is diverging. It's the opposite of cross-eyed! You can get to the point, the bad point, where the audience cannot focus on the background. Our eyes diverge only about one percent," he notes, using bugs and frogs to illustrate how some creature's eyes can diverge much more than that.

"We can create images that cause the eye to do more than that (one percent), so a convergence rig becomes very important to help control that. Pre-planning where the focus is in 3-D has to be perfect, or people's eyes are snapping back and forth!

That's where eye strain comes from."

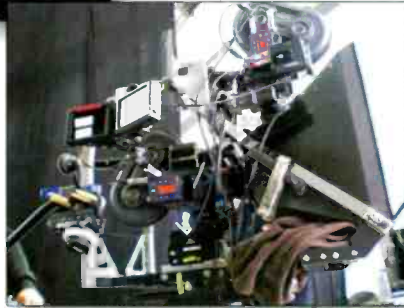
Camera ops and DoPs are thus quickly learning that there will be certain rules to follow when shooting 3-D movie pictures for large format cinema, as James Stewart, Bill White and a few others point out. Extremely wide vista will need extremely high resolution resolving power to convey details on screen. But shooting in close quarters and at close objects can make very exciting things happen.

As Stewart notes, film and electronic cinematographers have always played with the Z axis, and created the illusion of depth using the existing tools at hand - focus, lighting and set design, forced perspective. Now, there's actual depth to work with, and much more that can happen on the Z axis. "We can bring things way off the screen, and actually invade the viewers 'personal space' if we want to. We can reach out and touch the audience, and they can reach out and touch on-screen people or products.

"It's a magical time in digital media," he says as a result.

Magical, but also a little lonely.

There are just not that many people doing 3-D production at this early stage -"I know them



all" Stewart laughs half seriously. In Toronto, he has just one option for post work: Creative Post, with its Quantel Pablo 4K system, complete with 3-D whistles and bells.

The powerful system is used more often for colour correction, but Stewart says he was happy to find a local shop able to do 3-D conform work. "There's not much 3-D going on - there's just me with a real budget - so I know that it was a risk for Creative Post to invest, but they are future-proofed."

Mark Northeast, vice president of sales for Quantel Canada, creators of the Quantel Pablo 4K stereoscopic editing system, says, "It's a pleasure for Quantel to partner with inventive A-list directors like James Stewart. He has been at the leading edge of this new 3-D technology for years, and understands this new medium like very few directors in the world."

Other big film houses in Toronto, like Technicolour or Deluxe, say they are ready for 3-D, but that no such work is underway right now.

So what is the advantage for a paying client, commercial or otherwise, to get into 3-D if very few others are doing so?

"It's all about right now, and being first," Says Stewart simply. "My clients can do a 3-D commercial and they will be one of the first ever to do so! The catch is that it is the future!"

Tema Conter Memorial Trust founder and National Chair Vince Savoia agrees, saying, "When we approached Geneva about doing our next TV spot, we never dreamed that the project would take our message to this next dimension. James is a leader in the 3-D field, and we felt the immersive nature of this medium was a great fit

for both the PSA and the charity. We have always embraced new technology to raise awareness for our cause. This approach allows us to reach a far broader audience with our story, leveraging multiple platforms - web, television, mobile devices, and cinema simultaneously."

Stewart of course agrees: "I do not see any reason why computer screens, TV screens, mobile devices, cannot be 3-D," he asserts. "There is no reason. We will soon be demanding depth in digital media. Instead of holding up a flat, 2-D piece of paper, we will be immersed in 3-D depth, and it will be natural and easy on the eyes.

"Years from now, we will wonder why we ever did it any other way..."

B

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LED Lighting is Cool

Broadcasters, Lighting Manufacturers and Digital Cinematographers Get the 'Green Light' at Industry Workshops

By Lee Rickwood

When broadcaster producers or technical advisors say "Let's 'Think Green' on the next shoot", the financiers, accountants and budget managers generally hear "Blah, blah, blah blah blah, save money, blah blah."

In today's challenging economic times, money is often the kind of 'green' that gets the most attention.

But, in a series of workshops and technical presentations, attendees at various Green Screen events are learning that production costs can be saved even as production values are enhanced, using new and environmentally-conscious production equipment.

From low power lighting devices to solid-state recording gear to high-end digital image capture

to carbon-offset generator programs, studio and location crews alike have a number of ways to be both eco-efficient and super-productive.

The inaugural Green Screen Toronto workshop (held in conjunction with the Planet in Focus film festival) presented an overview such approaches last fall. Led by award-winning cinematographer and filmmaker Lance Carlson csc, *Shooting Green* focused on green options for individual camera people or small shooting crews. Equipment was demonstrated with the pros and cons of each examined closely. Discussion about cameras, batteries and record media, as well as breakthroughs in lighting and other developments in cinematography, obviously engaged the attendees.

Planet in Focus Artistic Director Candida Paltiel noted at the time, "Planet in Focus was the first film festival worldwide to put out a call

for carbon neutral films: works that were created with a minimal carbon footprint. We commend and celebrate the filmmakers in the vanguard of this movement."

The celebration continues, and the business of greening media production, and incorporating green best practices in film and video production from the production floor to the administrative offices, has been explored in subsequent industry events, including programs co-presented by Green Screen Toronto, the alliance of film industry organizations developing environmental standards and protocols for green production.

Most recently, the 'LED is Cool Lighting' workshop explored the latest tools, techniques and technologies for lighting film, TV and video productions.

Co-presented by RTA Ryerson University and a group of sponsors and supporters, including

Presenters at Green Screen events encourage film and videomakers to think about eco-friendly production techniques, like cool lights and solid state recording. Left, the CBC's Brad Dickson; below left, session convener Lance Carlson; below, hands-on in the studio.



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Lit with cool LED fixtures, with windows covered by virtual polarizing gels (see below), CBC's studio in Beijing provided a great vantage point.

Color Kinetics, DSC Charts, Kino Flo, PS – Production Services, Rosco, Panasonic, Sony/PCI, Source Shop/LitePanels, Sylvania Osram and more, the day long event helped explore the suitability and use of light emitting diode fixtures as stand-alone or integrated illumination sources.

Carlson again was the host for the event, and he introduced a number of key presenters, including Brad Dickson, Senior Lighting Director at CBC; Freider Hochheim, himself a Ryerson graduate, and the president and founder of Kino Flo, one of the first companies to deliver high output, cool operation, colour stable fluorescent lights for studio and location use.

Several noted DPs and cinematographers with experience in using LED fixtures also shared their perspectives during panel discussion and hands-on, in-studio sessions.

Dickson offered his insight and experience with LED lighting, including how he lit CBC Sports' studio at the Beijing 2008 Olympics solely with LED fixtures, as well as the set-up of and all LED newsroom for CBC French language studios in Toronto.

He joked right off the bat that what mattered to his bosses was that "It has saved us money — they don't care about lighting and LEDs! The payback can come in year one, taking into account lower power requirements, less HVAC operation, all that stuff, when using LEDs."

As CBC's Senior Lighting Director, Dickson has more than 30 years experience working on TV productions of all kinds, including previous Olympics, news and sports programming, as well as variety, comedy and more.

As LD, the green Dickson is most concerned

about is the colour that the lights put out. Lighting people care about what the camera sees, he said, and how the camera responds to RGB in the shot.

"The new LEDs do not have as much green in them, and you can achieve daylight or tungsten mixes now," he said, demonstrating the point with screen captures from vectorscope and SMPTE colour bar displays. He noted first where the 'spikes' line-up on the reference display, and then he showed where any spikes from a light source might sit.

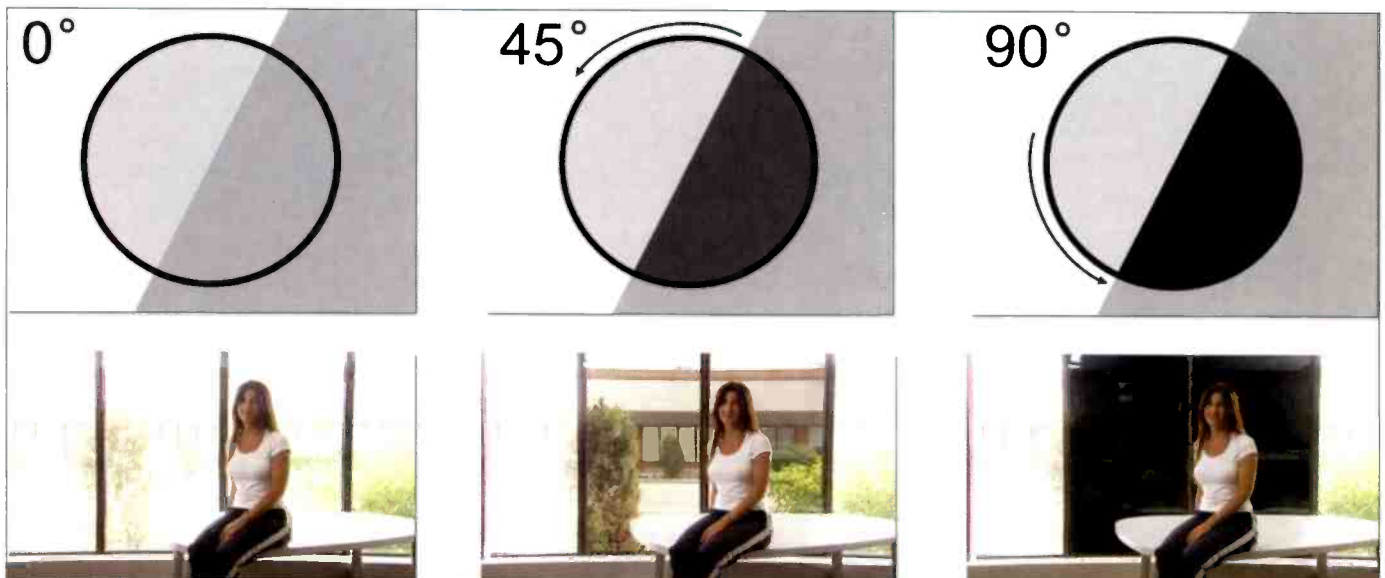
Using a DSC colour reference chart, he could see what the camera sees, and was ready for any necessary video manipulation. "Not all LEDs are viable for video," he said. But units with good consistency are available, such as those from Color Kinetics, one of a number of manufacturers that Dickson referenced and whose units he has tried.

Dickson emphasized that "TV white must be made from the available RGB for the camera, not the human eye. It looks different to the eye, so all I care about is how it looks to the camera."

And it looks just fine, as Dickson then showed using images and sequences from the Beijing Summer Olympics.

A confluence of factors almost dictated that LEDs be used in China — overall production budget and expenses was one such factor, but so too some physical characteristics of CBC's Beijing studio itself — in terms of size and location.

"Our entire Olympic studio was lit by LEDs



RoscoVIEW is a virtual polarizing filter system used to control and balance indoor and outside illumination, such as during CBC's Olympic coverage from Beijing (top of page).

— even the on-set Olympic rings were LED, Dickson said. “Yet, when the host Chinese asked us to fire up the entire studio to do a test in advance of the Opening Ceremonies, it barely registered. They said ‘Please put up your lights’ and we were going ‘They are up!’ The whole studio was fired by 35 amps, in three phases only, so it barely registered!”

Interestingly, Dickson noted some other obvious savings and benefits from LED lighting that the on-camera talent first noticed.

“We left the lights on all day and no one cared,” he said. “Make up was done once, and never really had to be done again. No perspiring, no touch-ups.”

The cool, soft lighting left host and anchor Ron McLean to wonder, ‘Is this it? Is this the lighting? It’s like a lounge in here!’ as Dickson related, adding, “There was a relaxed feel on- and off-air; you don’t get that with 12K HMIs!”

But, Dickson continued, using LED lighting was not the only reason the Beijing broadcast was like an “on-air science experiment”.

It marked one of his first uses of the virtual polarizing filter system called RoscoVIEW

It’s a two-part system, with a wide width polarizing filter in gel form for mounting on the windows, say, and a matching optical glass polarizing filter for mounting on a camera lens.

Together, the filters can be used to instantly control 100% of exterior brightness, as seen by the camera through the window. It does so without affecting the lighting and exposure within the studio or set.

And, by rotating the camera filter, users can change the degree of cross-polarization through the window where the gel filter is applied.

Dickson said he decided to use RoscoVIEW in Beijing about “two seconds after I saw it being demonstrated.

“We had a million dollar plus background — the famous Bird’s Nest stadium was directly behind our vantage point — which we fought to get. If the view did not come across, well, why were we there in the first place? We also knew we would be dealing with variable lighting conditions, as seen outside the windows that made up the studio background.”

Dickson had six cameras in studio shooting out that window, pedestal mounted and a jib arm. Each was equipped with a custom made plastic matte box to hold the RoscoVIEW camera filters, sized at 176 mm.

As they were developed in-house, Dickson was able to have small tabs added for rotation

of the filters — the lighting and climactic conditions changed regularly, even between segments, so Dickson’s camera crew could adapt quickly and easily while maintaining a nice consistent look.

He also showed that the polarized filter system, along with the overall lower lighting levels of the LED equipped studios, meant he could get shots he would not normally get — all with more detail than could normally be seen through the Beijing haze.

“I’ve got variable ND in the window,” he enthused at the time, but he’s honest in saying he was not 100 per cent thrilled about using the system. Mounting issues, for example, have to be addressed for different situations. Double sided tape can work in a one-off, Dickson said, but RoscoVIEW is a rather delicate material and it can tear sometimes.

In the small gap between the window and the affixed filter, heat can be trapped, and some buckling might be observed as a result, he noted. “We had a piece of gel 8 feet by 17 feet, so it covered a wide area of glass and was susceptible.”

However, being an early adopter means you can discover the plusses and minuses of any new technology, Dickson pointed out, adding that you can also discover “lots of new ideas, too!”

He’s looking to using the filter system inside on-set lamps, for example, dialing down their brightness while maintain overall cameras exposure.

Not having to constantly change out fixed ND filters, and not having to spend time with gels on stand by, means camera crews and lighting directors can spend more time on other more visible creative elements in front of and behind

Events Turn Spotlight on light emitting diodes (LED)

Lighting professionals and the public will have an opportunity to learn about LED (light-emitting diode) lighting during a two-day event in early April. It’s the second year in a row for greenTbiz and LEDiscovery, staged at Toronto’s Exhibition Place.

The LEDiscovery Display Forum features exhibits from over 20 local LED manufacturers and product representatives. Exhibitors get the chance to provide a snap shot of their organization and products during scheduled infomercial-style presentations.

New this year is Table Talk, a series of round table discussions about issues that affect the LED technology industry and the lighting community, including reduced electricity consumption, reduced maintenance costs and adjustable colour and intensity (dimming) settings to suit a wide range of industrial applications and operational requirements.

For more information, visit www.greenTbiz.org.

the camera.

It’s up to the bean counters to enjoy the savings realized through low power lighting and the new accessories being developed to take full advantage of not just green, but the entire spectrum. **B**



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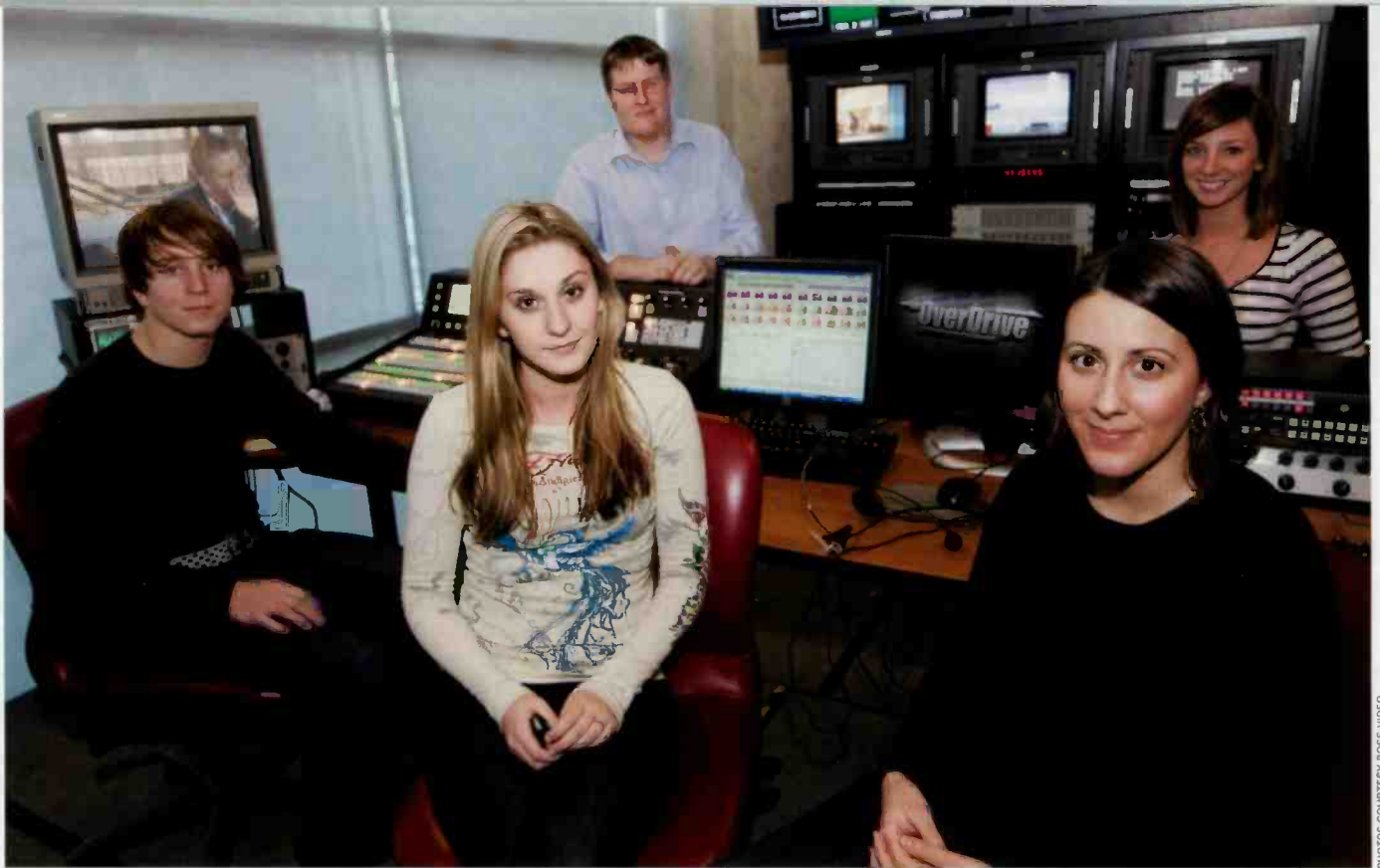
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PHOTOS COURTESY ROSS VIDEO.

NSCC students in the Radio and Television Arts program left-to-right, front row Everett Stone, Samantha Power and Shannon MacIntyre, back row, Bill Barnaby and Nikki Comeau.

Broadcast Training is Not Automatic

But Learning New Production Automation System Boosts Employment Prospects

By Lee Rickwood

Overlooking the harbour in Dartmouth, NS, a new state-of-the-art television production facility has recently been upgraded with the latest digital transmission and automated device control infrastructure.

Two TV studios and associated control rooms are now in operation, following the estimated \$1 million plus installation and upgrade project.

No, it's not a major new broadcast facility, nor is it one of the region's many independent media production houses. It's school — in particular, it is the Radio & Television Arts environment at the Nova Scotia Community College.

NSCC recently upgraded its broadcast production environment with Ross Video's OverDrive Automated Production Control System (APC), becoming the first and only educator in the country to teach students production automation using OverDrive APC technology in its main control room and studio facility.

"We recognize the industry is moving towards automated production control and we want our students to be able to learn using the latest technology so they have the necessary skills to work

in the industry," said Stephen Melanson, member of the Radio and Television Arts faculty and technical focal point for the College's significant broadcast infrastructure investment.

"Now, I come from the old world," Melanson laughs, noting he is a graduate of the broadcast program himself. "I tell my students 'I am analog!' But as the industry changes, we have to change, too. We are committed to using the most appropriate tools available to prepare our students for a successful career in this industry. There are places you will still encounter analog gear; there are still tape environments along with the digital and solid state.

Broadcast TV students at NSCC have access to as many as seven portable digital SD camcorders, some full size and a couple handycam-like configurations. One HDV camera and one record deck have recently been added, as well.

"While there is lots of analog gear in the second, smaller, studio that acts as a working newsroom, all that will go to digital in the next little while, as we upgrade ENG to go tapeless."

But there's also an automated newsroom in the TV facility across the harbour," he says, noting the CBC's presence in Halifax. "We have to be ready for what's coming, and we have to make sure our students are ready."

Those students, in the College's two-year RTA program, learn about all the functions in a radio or TV station. They are exposed to the theory behind how a station works, and the theory is reinforced with hands-on practical time, spent operating cameras, microphones, lighting, editing and other technical equipment. Editorial skills such as scripting on-air news, ad and promo copy; producing, researching and writing outlines for both media, and so on.

But in the second years, students focus on one of three specific areas:

- Television Production
- Radio Performance/Studio Production
- Broadcast Journalism

As Melanson notes, both the program's curriculum development and its technological infrastructure were developed in close consultation with industry partners, including regional broad-

casters and broadcast distributors, independent production or duplication facilities, equipment providers and suppliers, and more.

Co-op opportunities provide an opportunity for students to get paid employment between the first and second year of the program, while still completing the learning outcomes of the course. Employers thus have a role as co-educators, providing 'real-world' learning opportunities beyond the bounds of the classroom, and building a bridge to the labour market.

A market that faces challenges, for sure.

"There might not be much of an increase in jobs and employment opportunities in traditional broadcast; that's not where the growth is," Melanson acknowledges. "But there are new technologies opening up new opportunities for more efficient automated productions, for multi-screen distribution. As the industry changes, there are lots of opportunities for visual storytellers."

The opportunity for expansion and upgrade of the broadcast training facilities at NSCC itself came as a result of a major industry change: it was one of the beneficiaries from the Canwest/Alliance Atlantis specialty channel acquisition. As Melanson points out, in the fine print of that multi-billion dollar deal were significant investment commitments.

"We are named as beneficiaries, and that gave us the opportunity to upgrade our facilities," he itemizes. "We have taken the entire facility's signal path to digital SDI, even though we are acquiring analog. We have graphics and character generators, audio mixers, playback servers, and all can be controlled with the OverDrive."

Eastern Canada PCI Atlantic played a key role in the acquisition and installation of the Ross OverDrive system. Even as Melanson had to maintain his teaching schedules and classroom activities, PCI staff were charged with the installation and integration of the new system. "We had a teaching and production schedule we had to keep running," he recalls. "But they were more than able to work with that. They did a lot of the fine-tuning on the weekends, in fact, and that was more efficient all around PCI has been tremendous in supporting us."

"We're pleased that NSCC has implemented OverDrive Automated Production Control technology as part of the Television Production Specialist program," said Brad Rochon, Marketing

Product Manager, OverDrive. "It's important for students learning television production to have an understanding of this technology to better prepare them to enter the workforce."

Designed and developed in Canada by Ross, OverDrive clearly represents the broadcast world's adoption of IT techniques and technologies. Using the latest Java programming language in a classic client/server architecture, OverDrive communicates with video servers and switchers, audio mixers, robotic cameras, multiple graphic channels and more. Serial, IP and Ethernet device control is enabled over compatible devices,

and in newsroom applications, its unique LiveLink MOS (media object servers) connection to the newsroom control system (NRCS) enables direct control of production rundowns and MOS enabled devices.

In fact, the automation system integrates with over 100 broadcast products and production systems, as Rochon points out. "OverDrive completes the link between newsroom editorial systems and production device control, and can automate server clip playout, robotic cameras, CGs and more. But it also still allows manual intervention, so there's great flexibility. It can be



NSCC student Samantha Power left and Ross Demonstration Artist Julie Mulvihill right during an OverDrive Automated Production Control System training session.



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configured in many ways, and is scalable to all kinds of live production.”

Before that link was completed, Rochon describes, the production process was a manual, paper driven procedure, one that made keeping things in sync more difficult when unanticipated changes had to be made. Automation is the opposite, he says.

“Some people worry that automation ‘dumbs the show down’, but it actually increases

Flexibility and efficiency,” he maintains. “Productivity increases with the ability to do faster turn-arounds.”

Using a typical morning show configuration as an example, he explains how OverDrive can support automated and manual production. It’s pre-programmed to connect scripted content with appropriate camera shots and CG supers, but when a live hand segment comes on, an operator comes in and runs the audio board manually. Then, there’s one button access back to full automation at the conclusion of the unscripted segment.

NSCC Radio and Television arts students are already using the Ross OverDrive system to produce their own weekly television show. All students rotate through the various crew positions, and are responsible for content development at all levels. It’s a terrific real-world learning experience, and it connects the students at NSCC directly to their industry and their community.

Keeping its power and capability in mind, the



Julie Mulvihill, Ross Demonstration Artist on the right with NSCC students Samantha Power and Bill Barnaby during an OverDrive training session.

students are nevertheless learning that the automated production process is only as efficient as the preparation of the operators is good. That’s a great lesson to learn as technology continues to impact the broadcast industry overall, and it has given these students in particular a greater appreciation of the importance of the entire planning and production process.

“I’m excited to be a part of a growing industry in broadcast technology. I feel really lucky to attend the first school to use this automated system, and I know this will give me an edge and make me more employable when I graduate from the program,” said Shannon MacIntyre, Radio and Television Arts Student.

The irony of teaching automated production is not lost on Melanson, who says the program

initially struggled with the decision to move in that direction. “The downside of automation is that it reduces jobs, and that goes against our fundamental purpose here. But the trends of the industry must be responded to appropriately, and we see this as the best way to prepare our students for what they will eventually encounter out there.”

It seems to be working well: according to NSCC’s most recent survey of graduates (2007), 91 per cent of NSCC graduates are employed; 86 per cent in their field of study.

Melanson, as an NSCC grad himself, is proof-of-placement. He spent several years in local community cable TV, moved to news and regional TV services, before working with the provincial legislature’s TV service, and then eventually, the

Broadcast Educators Gather in Nova Scotia

As the techniques and technologies used in digital media production develop, educators must continually adapt their curriculum, their teaching style, their technical infrastructure.

Media educators and broadcast trainers across the country are facing issues similar to those encountered at NSCC, and learning how to best incorporate new technology with effective pedagogy.

‘Manage the Winds of Change’ is therefore a most appropriate catch phrase for this year’s Annual Broadcast Educators Association of Canada Conference, and it’s appropriate that NSCC is one of the regional hosts for the event (Steve Melanson is one of the Conference Co-Chairs).

BEAC is dedicated to the

professional development of faculty and administrators in Radio, Television, Broadcast Journalism and New Media programs in provincially accredited colleges and universities in Canada.

This year, the Conference will be held in Halifax/Dartmouth, Nova Scotia, from May 29-31, 2009.

Professional development sessions planned for the event will explore issues related to:

- diversity
- employment challenges and trends
- the shrinking news world
- shared best practices, and much more!

Also at this year’s Conference, the Association will honour the outstanding work produced by its students and recent graduates at the 8th Annual National

BEAC Student Awards

Student creativity and technical achievement in radio, television/video, and new media/animation programs taught in BEAC member institutions will be recognized with one of 12 video and six audio awards.

In addition, the best of the best is selected from both the audio and video categories and awarded the BEAC-CanPro Award for the best of the Video, or the BEAC-Media Intelligence Award for the best of the Audio.

The productions selected by the judging panels as reflecting the highest standards exemplified by BEAC will be recognized in an hour-long television special to be aired the following year.

For more information, visit <http://www.beac.ca/conference/conference.htm>

community college where he now works.

His was a precedent setting path. Local cable operator and TV provider EastLink is a great supported of the program, he says, and one of its major employers, providing job opportunities for students not just in the Halifax area, but also province-wide, through its smaller bureaus and facilities province-wide.

Melanson adds that job placement opportunities also arise due to the areas' numerous production houses, duplication facilities and independent production companies that create specialty channel content. The provincial government, the Legislature and several universities and colleges (through distance ed activities) also have production requirements - and employment opportunities.

Based on his own broadcast career, Melanson had a strong vision for where broadcast training program should go. His work experience helped him understand how new technology would continue to revolutionize TV production, and he wanted to make sure his students were equipped.

As Rochon sees it, the school has to operate as a business to survive, like any other, so it has to turn out students that can jump on any new technology, incorporate it and operate it as required. "By using the latest gear and receiving the best training, NSCC's students are employable right now, and up to speed on the latest technology that the industry is using."

So they are on a path to the new broadcast world, one in which the multi-screen opportunities for TV include mobile, online, IP and other ways to create, publish and re-purpose broadcast TV content.

Curriculum development at NSCC will incorporate the least new media developments, Melanson confirms, and some of the features being considered for future OverDrive development will help connect evolving content creation and playout platforms, Rochon says.

"You have to be creative with your production, and your prediction, in this business," Melanson says. "You have to understand where the industry is going, and be compatible with the emerging workflows and be able to interface with other technologies."

Good advice, for students and equipment manufactures alike.

continued from page 15

acal killer loose on the island. Thirteen weeks later, all questions will be answered, the killer will be revealed and only a few will survive.

"We are so excited for this show and know viewers will get hooked!" Barbara Williams, EVP, Content, Canwest Broadcasting, said in a release. "The premise behind the series is innovative and instantly engaging; add to that the outstanding creative online campaign, and it guarantees to take television viewing to a whole new level."

Multi-platform highlights include full episodes streamed online, interactive weekly victim polls and a list of character bios where users will be able to track who has been killed and who is still alive.

Moreover, the series also offers viewers a complementary online experience via HarpersGlobe.com, a custom created micro-site with series extending content that follows fictional journalist Robin Matthews, who is hired by the island's paper to start an online community. The first of the 17 exclusive digital episodes is now online.

The TV broadcast debuts April 9.

Ross Video Acquires Media Refinery

Ross Video is increasing its presence in Europe with the purchase of Media Refinery, developer of XPression, a 2D/3D high definition character generator and motion graphics system.

Media Refinery's employees are now employees of Ross Video Europe and will continue to be based in Hilversum's Media Park, The Netherlands.

"Live graphics will enhance Ross' portfolio of live production solutions," said David Ross, CEO of Ross Video. "The acquisition of a leading edge, live 2D/3D high definition character generation and motion graphics system adds to Ross' strength in providing customers with complete solutions. We will be increasing our presence in European markets as a result of this acquisition. Ross now has offices and development staff based in the Netherlands."

XPression offers real time layering and animation of 3D models, 2D and 3D text, rendered

animations, live video and web content. XPression is able to integrate real time data into 3D graphics and animations, and so is used in news and sports productions with live connections to spreadsheets, databases, RSS feeds, newsroom editorial systems and other live data sources.

CHUM FM Honoured at CMW, 98.1 CHFI Morning Host Erin Davis Feted

CHUM FM received top honours at this year's Canadian Music Industry Awards, when it was named Major Market Station of the Year. The awards were handed out at the Fairmont Royal York Toronto, as part of Canadian Music Week.

In addition, the CHUM FM morning show with Roger, Darren & Marilyn were recognized as Major Market On-Air Talent of the Year, and CHUM FM's Barry Stewart was honoured as Major Market Music Director of the Year.

"This is the very best team in the business," said David Corey, CHUM FM's Program Director. "The morning show is as strong as ever and everyone at CHUM FM deserves a piece of these awards."

CHUM FM draws a weekly audience of more than 1,000,000 listeners and is the most listen-to FM radio station in Canada.

CHFI morning show host Erin Davis has received The Rosalie Award at the Trailblazer's Breakfast this morning, held as part of Canadian Music Week.

The award is given out yearly to one of Canada's top women broadcasters.

"Erin is an exceptional talent and truly deserves this honour. All of us at CHFI are so proud of Erin and everything she has accomplished in her career" said Julie Adam, 98.1 CHFI PD/GM.

Originally from Edmonton, Alberta, Davis' career in broadcasting spans 25 years and includes distinctions such as co-host at CKLW Windsor where she was the first female co-host in the powerful Detroit market, her own TV show on Rogers Television, and of course her current tenure as morning show co-host on 98.1 CHFI with Mike Cooper.

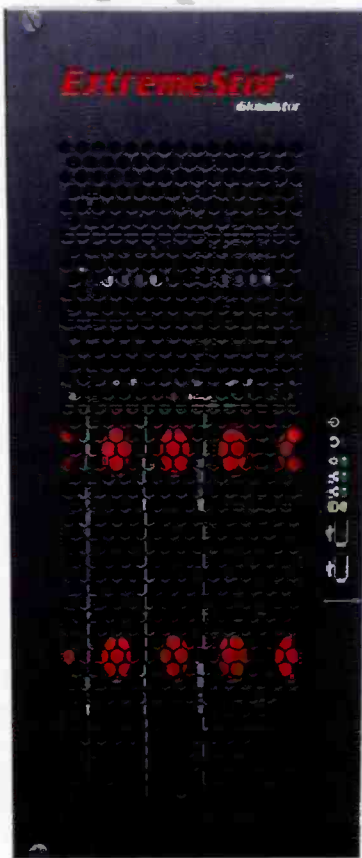
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ExtremeStor DI Red Workstation

Workstation Supports RED Digital Cinema-based CPU-intensive Content and Storage

Globalstor Data Corporation is shipping its ExtremeStor-DI REDe solution, calling it a next generation workstation based on Intel's Nehalem processing architecture.

Built around Intel's highly advanced Hi-k metal gate silicon technology, Nehalem dynamically manages cores, threads, cache, interfaces and power to deliver outstanding energy efficiency and performance on demand, the company describes, which is essential to an efficient, successful DI workflow.

The workstation has been engineered and certified to work with high-performance graphics, capture and playback cards, as well as the best open platform colour-grading technologies on the market. Scalable from 2.5 to 24TBs of internal storage, it integrates the Windows XP or Windows Server 2003 open platforms operating system in a tower package.

Panasonic Debuts 10-bit, 4:2:2 P2 HD Camcorder

Panasonic will deliver its new P2 HD camcorder in April.

The AG-HPX300 features: individual frame AVC-Intra recording and variable frame rates; 1/3" 2.2-megapixel 3-MOS imagers; standard interchangeable 17x HD Fujinon lens in a 3.6 kilograms (eight pounds) shoulder-mount design.

The AG-HPX300 imager captures full native resolution (1920 x 1080) HD images, while an on-board 20-bit digital signal processor (DSP) also image performance.

The AG-HPX300 records individual frame images in 100Mbps DVCPRO HD and in standard definition in DVCPRO50, DVCPRO and DV. The AVC-Intra 100 and 50 codecs can allow recording in a choice of HD video formats: 1080/59.94i; 1080/29.97P and 1080/23.98P (native 24p/30p); and 720P with variable frames in 23.98pN, 29.97pN and 59.94P.

The output of the camera can be set for down-conversion or cross-conversion with letterbox, 4:3 crop or squeeze.

The camera is equipped with numerous features including: Chromatic Aberration Compensation (CAC) to maximize lens performance; built-in scan reverse for use with a variety of film lenses; a Dynamic

Range Stretch (DRS) function to help compensate for wide variations in lighting; a waveform and vector scope display; and two focus assist functions.

Equipped with two P2 card slots and new 64GB P2 cards, the AG-HPX300 offers recording capacity can exceed tape-based camcorders. The camera also features an SD memory card slot for saving or loading scene files and user settings, or proxy data (optional AJ-YAX800G Proxy board required).

The AG-HPX300 is equipped with a widescreen 1.23 megapixel LCOS colour viewfinder and a widescreen 921k 3.2-inch LCD colour monitor. It features a low-power consumption of 18 watts.



Panasonic's New 10-bit, 4:2:2 P2 HD Camcorder

Wireless Video Sender for TV and Film Gets Approval

Toronto-based RF-LINKS reports its new GX-68 UHF Professional Video Sender is the first device of its kind to be industry approved in Canada.

The GX-68 Video Sender has a wireless range of up to 600 feet (line-of-sight) that can be extended to over one kilometre with the use of a M-806 tuner and high-gain antennas.



Wireless Video Transmission from RF Unit

Transmitted video can be received by UHF air TV band channels 14 through 69 (a significant advantage over older models that could transmit only to channels 65 through 69), making it perfect for directors to monitor what is being shot by all roving Steadicams on set.

The device features dip switches in the back panel (versus the turn screw of previous models) for easy channel changing and a built-in video filter and amplifier to guarantee excellent colour quality.

The 3.2" x 2" x 0.9" solid metal enclosure features a professional Hirose connector.

The video sender is available in NTSC and PAL format and can be powered by either a 12 V battery pack or Anton-Bauer 14.6 V to 32 V battery.

Canon Captures Super Bowl Action

34 HD lenses provided by Canon were used by mobile production specialists, NEP Supershooters, to capture game related action at Super Bowl XLIII.

The longest reach at the game came via eight Canon DIGISUPER 100xs (XJ100x9.3B IE-D) long-zoom HD field lenses and 16 DIGISUPER 86xs (XJ86x9.3B IE-D) long-

zoom HD field lenses, with Canon's Optical Shift Image Stabilizer Technology for rock-solid imagery at telephoto distances. Hand-held cameras were outfitted with eight Canon HJ22ex7.6B IRSE long focal-length portable zoom lenses, and two HJ11ex4.7B IRSE wide-angle portable lenses.

The Canon HJ22ex7.6B IRSE zoom and Canon HJ11ex4.7B IRSE wide-angle both feature digitally pre-programmable iris, focus and zoom controls for repeatable precision.

Specially modified Canon lenses also played a part in the sometimes controversial "yellow line" that is used to show a first down to television viewers. SportsMEDIA

Technology software reads zoom and focus data from the lenses, which is fed to the telemetry systems that produce the graphic overlays.



Canon HD Lenses at the Super Bowl

EVS Toolbox for Tapeless Production

EVS Broadcast Equipment is introducing Insio, its latest software application for pre-recorded TV programs, to coincide with its release of the EVS Silverline, a new brand for near-live and pre-recorded studio productions.

Insio is a new software application for pre-recorded program production. Combined with any EVS production server, Insio is a toolbox for controlling each production phase of pre-recorded TV programs, including recording multiple feeds, instant review, clip management, metadata creation, clip

transfer and feed streaming to post-production.

The tapeless solution is designed to enhance and speed up studio production workflows, and can integrate with existing post-production infrastructures. Insio's touch-screen interface supports clip management with several options, including the addition of production notes.



Insio software from EVS Broadcast Equipment

New SSL C100 Broadcast System

Solid State Logic (SSL) is showing a new generation of its C100 Digital Broadcast Console.

The C100 HD-S combines benchmark audio processing and signal path performance, the company describes, while providing simple scalability and expandability with robust, proprietary, virus proof systems, SNMP remote diagnostics and unrivalled service and support.

The console will be showcased with the new Blackrock processor system, accompanied by the new B-RIO modular I/O rack, MORSE Stage Box and MORSE Router.

The Blackrock and B-RIO combination are scaled and configured to exactly meet customer requirements making dedicated DSP power for processing and system configuration available to the operator at all times. The space and cost efficient Processor and I/O options enable engineers to specify systems which exactly meet technical and budgetary requirements.

The MORSE Stagebox provides fiber connected modular remote I/O. The MORSE Stage Box can either directly address Blackrock in simple installations or be used in conjunction with a MORSE Router in multi room environments where resource sharing is required.

The MORSE Router provides a Modular Resource Sharing Engine for all SSLC-Series Consoles.



SSL C-100 Broadcast Console

clairification

Due to a mistake in last month's *Broadcaster Magazine*, incorrect information was included in the New Products section, in regards to a new product release from TOA Canada.

TOA's SX-2000 is not available in Canada or the U.S.; it is only available in Japan.

Broadcaster regrets any inconvenience this may have caused.

For information about TOA Canada, visit

www.toacanada.com.

OptiPin from Digital Film Technology

Digital Film Technology (DFT) launched its OptiPin, a new film guidance and image stabilization option for the Spirit 4K/2K/HD



Film guidance and image stabilization for 4k

family of telecines and scanners.

OptiPin addresses imperfections in the film such as bad splices, flawed edges and positional inconsistencies, without affecting scanning speed. After installation, this solution requires no user interaction, and is ideal for a multitude of applications including new OCN, archival, and restoration.

The OptiPin system scans the perforations and uses a special film guidance to make it less sensitive to film edge imperfections. From the perforation images motion vectors are generated to electronically stabilize the image. For this purpose the motion vectors are passed through the Spirit's spatial image processor, which performs vertical and horizontal image positioning at an accuracy of 1/64 of an image pixel. The resulting image stability is comparable to that of pin-registered transports with the benefits of real-time capstan driven transports.

Sony Adds to HD Disc Systems

Sony's new high-definition field recorder, the PDW-HR1, is designed as an ENG/EFP complement for Sony's newest XDCAM HD422 optical camcorder, while also supporting legacy formats including MPEG IMX, DVCAM and 4:2:0 HD 24P content.

The recorder features a built-in up/down converter, and provides multi-format (1080i/720P) recording flexibility, as well as HD/SD conversion and cross-conversion during playback between 1080i and 720P. It has 24P (23.98) record/playback capability for 4:2:2 HD content as a standard feature, making it suitable not only for ENG/EFP, but also for use in an HDCAM SR production workflow, recording content acquired by

Sony CineAlta cameras.

A range of video and audio interfaces allows for easy interoperability with other devices and editing systems, with connectivity via HD-SDI in/out, HDMI out, SD-SDI in/out, composite in/out Gigabit Ethernet, RS-422A control and optional i.LINK TS in/out and DVB-ASI out.

Users can record HD content to the dual-layer 50GB version of Sony's optical Professional Disc media, model PFD50DLA - approximately 95 minutes at 50 Mbps, 150 minutes at 35Mbps, and 200 minutes at 25Mbps HD. It can also handle content on PFD-23A single layer discs.



Anton Bauer's Dionic HD battery

Dionic Batteries Power Latest Cameras

Anton/Bauer is introducing its Dionic HC high current camera battery, in support of digital cameras and other portable gear with increased power requirements.

The Dionic HC is capable of up to 10 amps, the manufacturer reports. With 85 watt-hr capacity, it offers up to nine hours of run time. A built-in LCD real-time fuel gauge tracks usage, and its seven segment numerical icon display indicates hours while the circular arcs illustrate 15-minute time intervals.

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 Dual hot-swappable SDHC memory cards Stores up to 6 hours of HD recordings



Native file recording World's first native Final Cut Pro QuickTime file recording camcorder

1080p, 720p, 1080i Image capture Newly developed digital signal processor

ProHD

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