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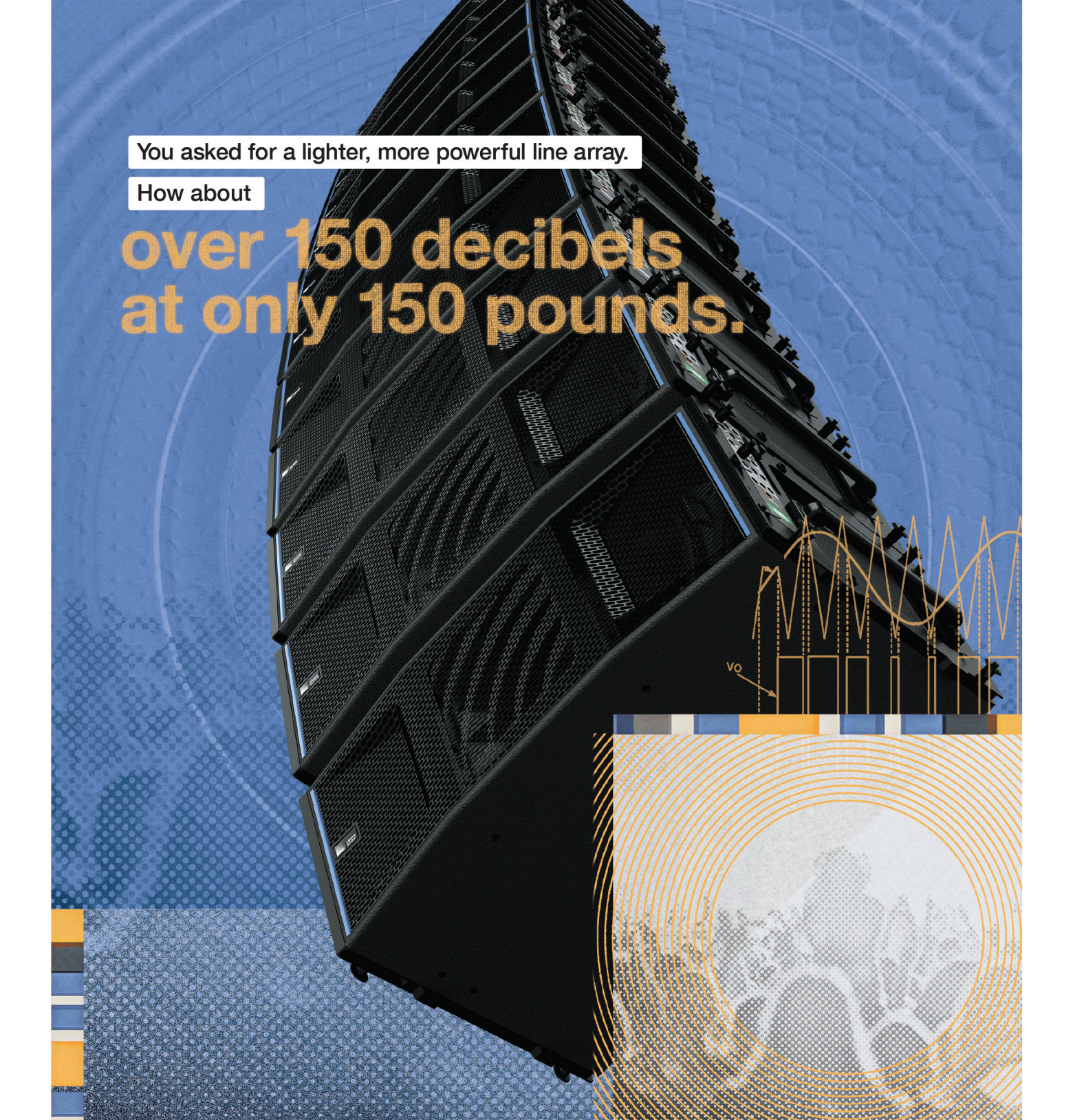
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Explore the immersive world of Currents:
Niagara's Power Transformed, pg. 30

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**Edmonton's New Full-Service Recording
Destination for Music, Film & TV, the Web
& More**

By Kevin Young

Located in Edmonton's Central Southside area, the new 27,000-sq.-ft. facility at Dept.9 Studios offers up two soundstages, audio post-production facilities, video editing suites, a digital media lab, and a full-on recording studio. Beyond that, they offer production services, mastering, scoring, ADR, V/O, and Foley services. Not to mention a set shop, wardrobe/makeup, and prop room.

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**The Niagara Parks Power Station Comes
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Attraction**

By Andrew Leyenhorst

Before the world's most famous waterfall became a bustling destination for travellers around the globe, it provided its home in Niagara in with a resource that would ultimately become one of the most sacred of all – electricity. Decommissioned in 2006 after a century of operation, Thinkwell Studio Montreal and Niagara Parks have reactivated the derelict facility as a spellbinding tourist attraction that recounts the history of hydroelectric power and its origins in Niagara Falls.

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By Wayne Hawthorne

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The Unsung Heroes of Location Sound

**Digging into a Unique, Tough &
Exhilarating Niche of Recording**

By Michael Raine

In the world of film, television, and commercials, location sound mixer/recorderists do not get the recognition they deserve. Despite the fact that bad sound can ruin even the greatest picture, they remain the unsung heroes of the video world. PS sits down with some of these champions of location recording.



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MCC'S DAVE TEMPLE

ON BEING CCMA RECORDING STUDIO OF THE YEAR, THE STUDIO MARKET & MORE

At the 2021 Canadian Country Music Awards, which were celebrated in London, ON, in late November, Calgary's MCC Recording Studio was named the Recording Studio of the Year. This was the third time that MCC has earned the honour, with the other awards coming in 2013 and 2014. And so, with that distinction in mind, *Professional Sound* caught up with MCC's owner and founder, Dave Temple, to discuss the secret to the studio's consistent success, navigating a challenging market for studios pre-COVID, and how they've weathered the pandemic.

PS: Congrats on the latest award. The fact that MCC has won Recording Studio of the Year three times, and they're spread out over a decade, speaks to the consistent job you're doing and the studio's reputation.

Dave Temple: I always feel pretty blessed about that, especially with this pandemic stuff going on. Honestly, we had a real challenging two years. But you know, Johnny [Gasparic, head engineer/producer,] and I really hunkered down. Johnny's amazing, and I think we really didn't take anything for granted. And we just stepped up the customer service even more, and just the quality of what we were doing even more, spent more time on projects, and just really put the best foot forward that we could. I just think that even though we had tough times, financially, winning this award and YYC Award here in Calgary this year was really like, wow, you know? We didn't make a lot of bank, but we did get some respect for the work that we really did. So that was really a nice little pat on the back.

Mentally, it's very challenging, too. Early in the pandemic, your landlord, all the utility people and such are going, "Oh, we're all in this together." But three months later, it's kind of like, "Yeah, enough of this" [laughs].

PS: There's been a lot of attention, understandably, about the heavy impact the live music industry has taken during the pandemic. But recording has also been hurt and that's gotten less attention.

Temple: That's interesting, because we do have a lot of out-of-town clients. So, with the restric-

tions, for example, I had a project last year that was supposed to happen from the beginning to end of December, which would have been really good and the gal was coming up from Ontario. But we couldn't do the project because of the restrictions, so all of a sudden, I have a month of nothing and we're scrambling.

It's different for us as a studio, because a lot of studios are home-based. They're not in a location where you're paying rent and utilities and it's a storefront, brick-and-mortar operation. Even though we could probably make better bank individually, we've just felt that this is the kind of operation we want to do. It's a little old-school, but with a modern twist...

The live side definitely got hit, but there were some subsidy-type things available for live music to help weather that storm. There was nothing, absolutely zero, for a studio. It was like, *you're on your own*. So, it was all real creative, entrepreneurial-type wisdom that got us through that.

PS: Having won the award as CCMA Recording Studio of the Year for the third time, what have you guys done that has really set MCC apart from other competing studios?

Temple: It's not something that we really give a lot of thought to, other than the fact that, every day that we walk in there, how do we put our best foot forward? How do we get better at what we do? Like my engineer and producer, Johnny Gasparic, he's always researching technology, upping the game. We're buying more technological tools to be able to help us step up our game and the sound quality. And picking projects; I mean, we're lucky to have any project, to be honest with you, but taking projects on that we know will benefit the client and benefit us and it's the mutually-positive energy flowing right from the ground floor to when they release and the marketing of it. I would think that probably most studios are in the same boat and think the same way, but we really have been blessed to actually put into practice our thoughts and philosophies.

PS: When I was reading artist testimonials about MCC, I was struck by how much they just talk about you and Johnny as people, and the general vibe of being in the studio.



PHOTO: CCMA/TOUR BUS ENTERTAINMENT

How important to the business is that human side of the studio, and just making it a nice place to spend time?

Temple: Oh, that's absolutely everything. You know, making the experience for a client is the most important thing ever. And experience means from the way that they're greeted and the way they're talked to, the way that we participated in their project, to the way things are recorded and educating them so they understand and are part of the process. I think all those are very integral to clients having a good experience. Also, Johnny and I are just so charming, it's just unbelievable [laughs].

PS: Lastly, new technology in a studio is an important investment decision, so how do you make those decisions?

Temple: Really stupidly [laughs]. We just keep going, going, going ahead. You know, five years ago, we put in probably close to \$100,000 into technology, so that we could record, mix, and master at 96k, 32-bit, and most studios in Nashville don't even record like that. There are studios that do and we all hear the difference, but everybody always goes, "Well, it's just going to be an MP3 anyway." But every one percent is one percent, and if you have 10 or 12 things that make you a little better than the next, then that's 12 to 15 percent better, so why not?



The AES Welcomes Josh Reiss as President for 2022

The Audio Engineering Society (AES) has named Josh Reiss as its president for 2022. Reiss, whose term of service began on Jan. 1st, has garnered honours and accolades for his work with the AES and beyond.

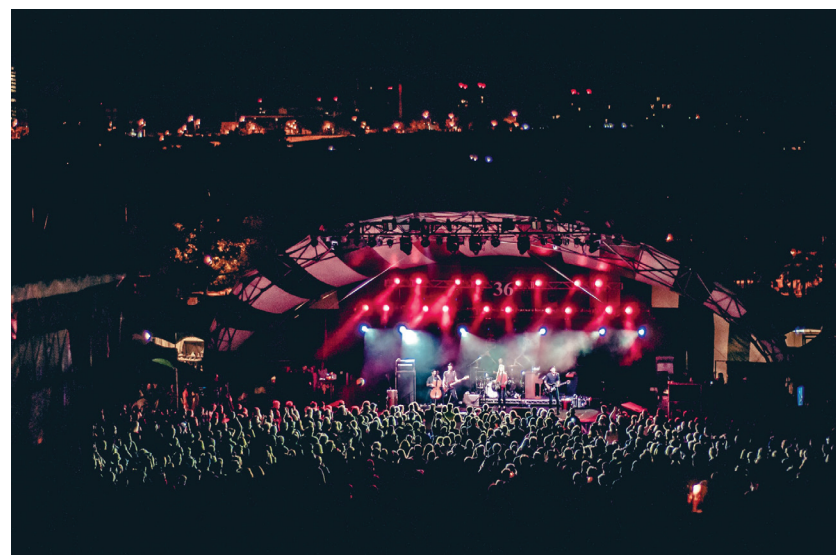
Reiss' involvement in the Audio Engineering Society spans over 15 years, including vice- and co-chair roles, and is a former governor of the Society. In 2007 he was general chair of the 31st AES Conference, New Directions in High Resolution Audio; and in 2009 he was general secretary of the 35th AES International Conference, Audio for Games. He has also served on the organizational team for several AES International Conventions, including a variety of chair positions.

Reiss has published over 150 scientific papers, including more than 70 in AES publications, and authored multiple books. As coordinator of the EASIER project, he led an international consortium working to improve access to sound archives in museums, libraries, and cultural heritage institutions. He is co-founder of the start-up companies LandR and Tonz, and another start-up based on his team's research, Nemisindo, has recently launched an online service for procedural sound design and the Nemisindo Action Pack of fully procedural audio plug-ins for sound effect creation in Epic Game's Unreal Engine.

Reiss is currently a professor with the Centre for Digital Music at Queen Mary University of London, where he teaches Digital Audio Effects and Sound Design, and leads the audio engineering research team. He has also received several of the AES's highest awards for his work in the industry, including the AES Board of Governors Award (2009 and 2010) and the AES Fellowship Award in 2019.

"The AES understands and embraces the need to adapt to ever-evolving audio technologies and to change in the world at large," says Reiss. "My immediate predecessors have faced unprecedented challenges over the past two years with courage and vision. The AES is on a firm footing to continue to advance the science of audio and its application while improving inclusivity and diversity in our community and industry by encouraging talent, creativity, and innovation."

To read Reiss' AES President's Message and for more information, go to www.aes.org.



Ontario Begins Gradual Reopening of Concert Venues, Theatres & More

On Jan. 31, 2022, Ontario began a gradual reopening of concert venues, theatres, and other businesses. Since Jan. 5th, Ontario had closed or instituted strict capacity limits on public-facing businesses of all types in order to quell the large spike in COVID-19 cases and hospitalizations brought on by the Omicron variant.

On Jan. 31, indoor dining, gyms, cinemas, arenas, concert venues, casinos, and theatres reopened at 50% capacity or 500 people, whichever is less. The next step of the reopening is then scheduled for Feb. 21st at the earliest. At that stage: social gathering limits increase to 25 people indoors and 100 people outdoors; spectator capacity at sporting events, concert venues, and theatres will be 50% capacity regardless of size; capacity

limits are removed for indoor public settings where proof of vaccination is required.

All dates and plans are dependent on COVID cases and hospitalization continuing to decrease. For the full list of planned changes, go to www.covid-19.ontario.ca/public-health-measures.

Solotech Acquires XR Studios; Expands Virtual Production Services with LA Campus for Extended Reality



MARTIN TREMBLAY

Martin Tremblay, president and CEO of Group Solotech, has announced that Solotech has acquired XR Studios, a full-service agency specializing in extended reality, which is comprised of augmented reality technology for live broadcast and virtual productions. As part of the strategic plan, XR Studios will continue to operate as a separate entity and brand.

Located in Los Angeles, XR Studios serves high-end clients in multiple segments such as TV, music, Fortune 500 companies, and live events. XR Studios pioneered innovative performances such as Katy Perry's *American Idol* finale and MTV's 2020 Video Music Awards. Other notable clients include Billie Eilish, Leon Bridges, Amazon, Verizon, Twitch, and more.

"XR Studios helps creatives, agencies, artists, and production teams achieve their goals," says J.T. Rooney, president of XR Studios. "At our core, we are a group of creative teams and producers that see the need for a company that sits in between the technology and the creative to help partners reach the finish line in this exciting new world of extended reality and virtual productions."

The acquisition of XR Studios also brings key talent and Chief Technical Officer, Scott Millar onboard. Millar has worked on multiple, large-scale inter-

national AR projects, with a thorough focus in installation, engineering, and general AV technology. He has been instrumental in the founding of the extended reality workflow, collaborating with software teams such as disguise, Notch, Unreal Engine, and Touch Designer, making

Millar a vital expert of this technology.

Other new members of the MET Division, such as recently acquired Waveform, will build the strength and impact of XR Studios and the overall division. "The venture with XR Studios will fill the missing piece of the puzzle and be

the third pillar of our MET Division, adding complete virtual production and mixed reality solutions to our high-end live streaming and esports offering," adds Tremblay.

For more information, contact media@solotech.com or info@xrstudios.live, or visit www.solotech.com.

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SIGNALS

A Moment of Re-Connection at GerrAudio Demo Days

On Dec. 14 and 15, 2021, audio industry professionals reconvened at GerrAudio Distribution's Demo Days after the event was cancelled in 2020. Taking place at Toronto's Catch the Fire Church, Demo Days presented a long-awaited opportunity for attendees to network, get hands-on experience with GerrAudio's product lines, and view educational workshops on new products and their features.

Demonstrations across the two-day event included multiple offerings from Meyer Sound, including the manufacturer's Bluehorn monitoring system as well as its Spacemap Go processing software. Other guest speakers included Sensaphonics/ASI Audio founder Dr. Michael Santucci, renowned system tuner and acoustician Arthur Skudra, DPA Microphones' Paul Andrews, DiGiCo's Tim Shaxson, RME's Derek Badala, Clear-Com's Jay Wallace, Lectrosonics' Colin Bernard, and touring engineer Jason Reynolds.

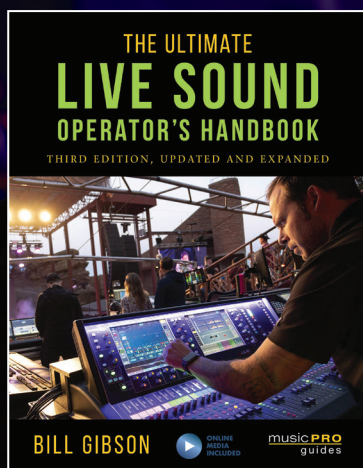
Outside of the demonstrations, viewers were free to chat with product representatives while also being able to try the products on display.

"All of us at GerrAudio were so happy to be able to host Demo Days once again this year, and want to thank all of our friends and industry colleagues who attended the event," remarks Peter Snelgrove, GerrAudio VP and director of marketing and operations. "We also want to extend a huge thank you to our visitors from Meyer Sound, Clear-Com, DiGiCo, RME, DPA, and LynTec, who jumped through extra hoops in order to get across the border and safely attend the event – especially with the holiday season and valuable time with family just around the corner. It was so nice to see everyone and we look forward to seeing you all again for Demo Days 2022!"

For more information, contact GerrAudio Distribution: 613-342-6999, sales@gerr.com, www.gerr.com.



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Silvio Spina Joins Techni+Contact as Regional Sales Manager for Central Canada



Techni+Contact and AMX Canada have announced the appointment of Silvio Spina to the position of regional sales manager, central Ontario, effective Jan. 3, 2022.

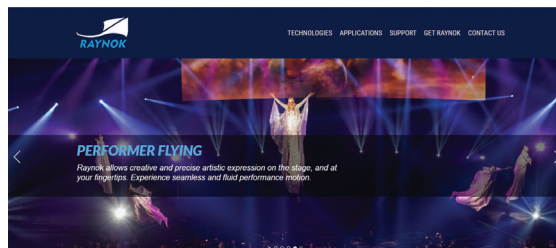
Spina brings over 25 years of experience in AV and channel sales. Spina was formerly the director of sales for the Canadian division of Exertis Pro AV, a position he successfully managed for almost 20 years.

"I am excited to be joining the team at Techni+Contact! During these trying times, relationships

are key and the people at Techni+Contact are some of the best and highly respected. It's an honour to now be part of that team. I am looking forward to building the Techni+Contact brand and bringing this great company into new territory. Expect to see opportunities and new relationships develop and exciting news as the year progresses," says Spina.

"Silvio's proven sales and business acumen combined with extensive relationships in the industry make him a wonderful addition to our team and great fit to our culture," adds Julie Legault, president of Techni+Contact/AMX Canada.

For more information, reach out to Techni+Contact Canada: 514-695-4883, info@technicontact.com, www.technicontact.com.



Niscon Debuts New Raynok Website

Niscon Inc. has announced the launch of a new website for the Raynok Motion Control System at Raynok.com.

This new site features product cut sheets, application examples, technical support information, training programs, and a new members area. Visitors can sign up to gain access to download a demo version of Raynok, product drawings, user guides (including a new 900-page software guide), and more. The Partners page highlights stage machinery suppliers and contractors that are part of the Raynok family.

For more information, contact Joe Jeremy at jjeremy@niscon.com, or Ron Morissette at rmorissette@showsdtd.com; or visit www.raynok.com.

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SIGNALS



AUSTIN FRESHWATER

DiGiCo Names Austin Freshwater as New Managing Director

Digital audio mixing console manufacturer DiGiCo has named Austin Freshwater as its new managing director.

Freshwater, who has been general manager since 2017, takes the reins from long-serving MD James Gordon, who remains CEO of parent company, Audiotonix.

Audiotonix – which also owns Allen & Heath, Calrec, DiGiGrid, Group One Limited, KLANG:technologies, Solid State Logic, and newly-acquired Sound Devices LLC – says it has been impressed with Freshwater's performance over the last four years. His capabilities have been further emphasized against the unpredictable landscape of the COVID-19 pandemic.

"His performance and behaviour over the last 18 months have been nothing short of phenomenal," says Gordon. "He's done an amazing job in a company that, to be very honest, is used to winning all of the time. Pandemic aside, he's always been the right guy for the job."

As he looks forward to guiding DiGiCo through the company's future challenges and successes, Freshwater is keen to serve its global customer base. "I want to replicate the relationships James has built," he says. "Not replace them by any means, but add to them and offer that extra bit of support. After all, if you're not driven to be the best for your customers, what are you doing it for?"

DiGiCo is distributed in Canada by GerrAudio Distribution.

For more information, contact DiGiCo: info@digiconsoles.com, www.digico.biz.



Radial Engineering Unveils Expanded Vancouver HQ & New Management Structure



NEW PRIMACOUSTIC MANAGING DIR.
ROB COOKE

Canadian MI and pro audio manufacturer Radial Engineering has announced a new management structure and hires for its Radial and Primacoustic brands, as well as the official transition to its new world headquarters facility in Vancouver, BC.

The announcements were made by Radial Engineering CEO Mike Belitz, who says the moves reflect Radial's commitment in 2022 and beyond to increased dealer support, new product development, and market expansion for the Radial and Primacoustic brands. The new management structure supports Radial's expansion into new markets for the Primacoustic brand while increasing dealer and customer service support resources for Radial's line of pro audio, MI, and recording products.

Rob Cooke has been hired as managing director of the newly-formed Primacoustic Commercial Division. In this role, Cooke will oversee Primacoustic's expansion into new market segments in the commercial and industrial sectors as well as oversee the overall Primacoustic Brand Development.

"I feel very fortunate to have been given the opportunity to join the Radial family and head up the Primacoustic Commercial Division," says Cooke. "Working with Mike Belitz, the Radial directors, and key Radial and Primacoustic employees has been instrumental in creating a new plan for expanding the Primacoustic brand beyond its current market segments."

Roc Bubel has been promoted to director of sales and marketing. In this role, Bubel will oversee all Radial and Primacoustic-related sales and marketing initiatives in the MI and recording sectors, and he will also oversee the Radial product development and artist relations staff and departments.

As well, Annelies Stegen has been promoted to director of finance, where her responsibilities will include all corporate finances, and overseeing budget and forecasting processes for both Radial and Primacoustic. Sukh Sandhu remains in his role as director of operations, where he is responsible for overseeing Radial's procurement, production, engineering staff, warehousing, and customer service teams.

Radial's transition to its new world headquarters began in the fourth quarter of 2021 and has now been completed. The new facility provides additional office space for the company's increasing staff and expanding capabilities in shipping/warehousing, engineering design, and dealer support.

"Over the recent years, the Radial team has grown and strengthened," says Belitz. "We have invested heavily in R&D to further innovate and deliver new products to meet the needs of our dealers, distributors, and customers. Our new state-of-the-art facility will allow us to expand our engineering lab, sales capacity, and marketing resources and will house a recording studio for 'real-world' tuning and testing of our world-class products. Additionally, we are nearly doubling our in-house production and warehouse areas to support our continued growth."

For more information, contact Radial Engineering: 604-942-1001, info@radialeng.com, www.radialeng.com.

RIP: Jacques Tanguay

Professional Sound shares with regret the passing of Jacques Tanguay, a veteran of the rigging and staging industry across multiple companies including Éclairage Tanguay Inc., Show Distribution, and Moose Rigging. Ron Morissette of ShowSDT shares the following tribute to Tanguay:

"I met Jacques at a trade show in Québec City where he ran Éclairage Tanguay Inc., most commonly known as ETI. Jacques ran a successful lighting company in Québec City but was looking to expand to Montreal. That's when our working relationship and our friendship began.

As with many of the lighting and sound company owners of that era, Jacques was firstly a drummer who had acquired a bunch of lighting equipment in a garage. He created wild lighting shows for his band using a lot of the technology developed for the disco lighting craze. These were scaled down versions of shows that Jacques had seen at the Colisée in Quebec City and at the Forum in Montreal and they faithfully replicated that feel of an arena show in a rock bar setting.

"The opening of the ETI Montreal office was an adventure. I was to run the sales end and Jacques sent one of his top men from Québec City to run the rentals. That's how I met Louis Racine who later

went on to work with Christie Lites and to open Midnite Hour. Louis and I were a formidable team under the leadership of Jacques who by now had scaled up his innovations to serve the local touring market. Jacques was the first in Québec to introduce dimmer per channel systems and pin matrix consoles. He pioneered the use of Socapex cables and many more innovations.

"Out of the Québec City office, ETI continued to manufacture disco lighting effects and Jacques started building the now famous orange road cases. Disco lighting had a huge market and it funded the development of the touring lighting division which toured with April Wine, Loverboy, and Anne Murray to name but a few of the artists that were drawn to the energy that Jacques radiated.

"ETI opened a Toronto office and continued to grow – maybe too quickly. Eventually, ETI closed, and the team went on to become some of the leading players in the Canadian lighting industry.

"Jacques' second chapter was the opening of Show Distribution – the live entertainment rigging company. Again, Jacques' energy and eye for innovation brought many leading artists to tour with Show Distribution. Jacques most recently



opened Moose Rigging.

"But no tribute to Jacques would be complete without mentioning his fishing and hunting exploits - they were many and they were wild. Most cannot be published – but we can trade tales the next time we meet to raise a glass to the memory of a friend and a true pioneer of the Canadian live entertainment scene – Monsieur Jacques Tanguay.

Professional Sound shares its condolences with Jacques' family, friends, and colleagues.

A.C. ProMedia Appoints Robert Zadeh as Product Manager

A.C. ProMedia has introduced Robert Zadeh in the role of product manager.

Reporting to Jean-Louis Blanchard, VP of business development, Zadeh will work closely with Franck Fabry, the VP of sales, and A.C. ProMedia's clients to further support the growth of its products and brands in North America. Combining his technical and marketing skills, Zadeh will work closely with sales and key customers to drive new product and feature introductions and help drive knowledge transfer.

Zadeh holds industry-related certifications, including AUDAC Level 1 Certification, Dante Levels one through three, and is currently studying for the CTS exam.

Zadeh holds a bachelor's degree in electrical engineering from the University of Victoria and a master's degree in electrical engineering from Concordia University, where the major part of his project was in collaboration with The National Research Council of Canada. He has been in several engineering roles in his career, including working as a Field Sales Engineer for IDEAL Industries (Canada), Corp., and was instrumental in managing projects and growing sales of their Audacy advanced wireless control brand.

"Robert has extensive education and background in the AVL industry. He understands the technology behind our brands and products and has a keen ability to share that knowledge with others and their various levels of technical ability," says Blanchard.

A.C. ProMedia and A.C. Lighting Inc. share the Luminex product line; therefore, Zadeh will be working closely with Luminex to develop the brand for both of these sister companies.

For more information, contact A.C. ProMedia: 855-324-9354, info@acpromedia.com, www.acpromedia.com.



ROBERT ZADEH

Meyer Sound Promotes Andy Davies to Senior Product Manager; Gautam Sharma In as Product Manager

Meyer Sound has announced the promotion of Andy Davies to the position of senior product manager and the appointment of Gautam Sharma to the newly-created position of product manager.

In his new post, Davies will assume responsibility for managing the entire Meyer Sound product portfolio, including overseeing new product development, defining product features, and supervising product launches as well as coordinating the product management efforts related to engineering, training, and product support teams.

As the new product manager, Gautam Sharma will provide cross-functional support of all technical and go-to-market aspects of products, including loudspeaker hardware, electronic modules, and software. Sharma will ensure the loudspeaker product development and life cycle is integrated within the larger scope of Davies' work, which encompasses digital hardware and software products as well as loudspeakers.

"With Andy and Gautam at the core of our product management team, we have an ideal balance of talents," says Director of Global Marketing Tim Boot. "As a veteran of the pro audio industry, Andy has direct connections to our customers and an intimate understanding of their needs. Gautam's exceptional skills in digital infrastructure management and business analytics are critical as Meyer Sound continues to grow and expand in scope. Together, they will ensure Meyer Sound products stay at the forefront of the industry and maintain our reputation for an extended life cycle."

Meyer Sound is distributed in Canada by GerrAudio Distribution.

For more information, contact Meyer Sound: 510-486-1166, www.meyersound.com.



MEYER SOUND'S ANDY DAVIES & GAUTAM SHARMA

TOA Canada Promotes Parth Gadhavi to National Business Development Manager



PARTH GADHAVI

TOA Canada has announced the promotion of Parth Gadhavi to the newly-formed position of national business development manager.

Gadhavi moves over from his time as Ontario east regional sales manager where he fostered strong relationships with dealers and became a reliable

source for commercial audio support, according to the company. Researching companies that would benefit from working with TOA will be his focus, followed by opening up a dialogue and promoting what TOA can offer as a benefit to their business.

"Parth is driven to succeed and he truly enjoys meeting new individuals and assisting them; we think this role is a great fit," says Rico Lucia, director of TOA Canada.

For more information, contact TOA Canada: 800-263-7639, www.toacanada.com.

Atlona Adds Scott Varner to North American Sales Team



SCOTT VARNER

Atlona has announced that Scott Varner will fill the role of regional sales manager, northeast, recently vacated by Adam Griffin; who was promoted to director of sales and business development for North America. Reporting to Griffin, Varner assumes all sales and channel management responsibilities in the Northeast and Mid-Atlantic areas. These changes are already in effect.

Varner's diverse professional experience include years working with Atlona's core customer base of dealers, distributors, manufacturer representatives, and systems integrators. He says he intends to leverage his experience to build Atlona's channel throughout his region, with the goal of increasing Atlona's brand visibility and market share. He is particularly bullish about Atlona's strength in collaboration, and sees endless opportunities to win business in the growing corporate and education verticals in cooperation with Atlona's partners.

"Scott's experience working with customers and system architectures across the AV spectrum makes him perfectly suited for this role," says Griffin. "His account management and training background will bring exceptional value while working with existing Atlona partners, and recruiting new ones, to continue raising Atlona's profile throughout the busy Northeast and Mid-Atlantic regions."

For more information, visit www.atlona.com.

Ian D'Sa

Producer/Songwriter/Guitarist –
Billy Talent

For the full conversation, listen to the Jan. 4, 2022 episode



PS: After years of refining guitar tones, do you have a few specific amps and/or guitars that you always know will work in the studio, or do you like mixing it up and trying new things for every record?

Ian D'Sa: I have a specific set of amps that I've used for the last almost 20 years now, since the first and second records. I like to sum guitar sounds, so instead of just one amp to get our main guitar sound, I'll have generally two or three going, and then I use a summing mixer to get the perfect main guitar sound. And then we do that for every overdub, from heavy guitars to auxiliary guitars and background guitars and things like that.

The main go-to is, in the early '60s, Fender put out this line of amps called the Tremolux – they were around from '60 to '63 – I've collected probably half a dozen of them. They sound incredible to me; they have a unique EQ on them compared to some of the other Fender amps of that time. I don't even use it for the tremolo effect, it's more that it's got this kind of peak in the midrange or high-midrange that really brings out the note articulation, especially from the guitars I use, so I always have that as the kind of main, base guitar tone that's heavily favoured in the mix.

Another amp that I use second to that would be a Marshall. For years, I used vintage Marshalls, the 2203 model, until I found that they'd reissued the hand-wired version of the 1959 Plexi – and it sounds phenomenal. So, I used that a lot on [Billy Talent's new, LP *Crisis of Faith*]. And thanks to Marshall, they sent me a couple of those, which are invaluable on this record... The third head in that mix, occasionally, would be a Komet 60. It just adds a little bit more of the touch response from your fingers on a guitar.

And then for my heavy sounds, a whole different set of amps for that. I've always used a Diezel VH4 for heavy guitars, and that's kind of the main heavy guitar sound. And on this record, I got a Wizard MTL from Rick St. Pierre, who makes Wizard amplifiers... So, I used the MTL a lot in combination with the Diezel on this record – that was the *new* amp for this record, the Wizard MTL – and the two of them together just sound magical on heavy guitars. The Diezel is kind of like this brick wall of low end, and then the Wizard has a little bit more of a punchy and toothy vibe to it, so that the two of them blend really nicely together. So, me and [engineer Eric] Ratz nicknamed them "The Wiezel".

Doug Fearn & George Hazelrigg

Producers/Engineers/Designers –
D.W. Fearn | Hazelrigg Industries

For the full conversation, listen to the Jan. 13, 2022 episode



L-R: GEORGE HAZELRIGG, GEOFF HAZELRIGG, DOUG FEARN

PS: With things like audio conversion, something I've noticed as I've tried more and better gear is that a lot of products aren't inherently bad – and are actually quite decent – but you don't notice that something is problematic or not as good as something else until you try the better thing.

Doug Fearn: Absolutely. You know, when you upgrade something as central to recording these days as a converter to something better, suddenly you hear all kinds of problems in other parts of the chain. It's just more revealing – when I switched to the Merging Technologies converters and PMC monitors, I suddenly couldn't stand the sound of any of my solid-state condenser mics. They just had an edge on them, and I ended up selling almost all of them.

These days, we just use vacuum tube condensers and mostly ribbon mics; most of our sessions are very close to, if not 100

percent ribbon mics. But, you're absolutely right – when you've improved something really significant in your chain, like monitors, or converters, or preamps, whatever – suddenly, you hear all kinds of things you never heard before.

George Hazelrigg: It also illustrates how important it is getting your monitoring situation right, and that's really crucial... For months we carried around these [PMC twotwo.6] speakers and listened to everything we could on them. We were doing converter shootouts and it was really obvious the difference in quality between converters. It just opened up our perception of what was going on, and you start to dial into what's causing problems.

And there's such a focus in the industry nowadays on mixing – *Well, what 17 plug-ins do YOU use on a vocal to make it sit in a mix??* – we use zero; when you get your source captured the right way, mixing is a trivial effort.



Tribute to Bob Johnston 1960-2021

By Michael Raine

The Canadian professional entertainment products industry is shaken by the loss of Bob Johnston, the vice president of Christie Lites Sales and of a 40-plus-year veteran of the AVL industry. He passed away peacefully, surrounded by family, on Dec. 2, 2021, at the age of 61.

Bob's extensive and accomplished career in the professional lighting and entertainment industry began in 1976 and spanned over 40 years, working in theatre, TV and film, and the live music and event fields. He was also a former president of the Canadian Institute for Theatre Technology (CITT) and a driving force behind its founding.

"The industry has suffered a great loss and he will be missed by all who knew him. He had a big personality and an even bigger heart," says Claudia Pfaffinger, CEO of Christie Lites Sales.

Stories about Bob are infamous in the Canadian AVL world. He was a larger-than-life persona who people gravitated to. And so, *Professional Sound* has asked a few of his friends in the industry to share some thoughts and stories about Bob:

KEITH DANBY Marketing Contractor

Bob Johnston: an industry icon that influenced – over an epic career – striking change to the Canadian theatrical/architectural/architainment/entertainment industries. Astute, ambitious, passionate, and yet personable, Bob influenced the business and personal lives of many who will keep with them and remember their own personal anecdotes that remind them of the epic personality that was Bob Johnston.

Bob made things work. "Problems" were "challenges." He never relented on what he believed in, yet, was wholly capable of compromise and moving his position based on an environment to benefit any "challenge."

One of many anecdotes (there are many gems) is a crucial last-minute meeting. Bob was wearing street clothes one particular day (in contrast, in early years Bob, typically, was impeccably "suited up"): "Hey, I've got to attend a last-minute important meeting, I need a suit and your suit will fit me - let's switch clothes!"

Who else do you know that would attend a meeting wearing someone else's clothes – a suit, no less – that had only minutes earlier been the property of someone else? Bob Johnston – and with that confidence and smile that dominated a room or meeting. Power Suit 101.

Ever been in Las Vegas having a great time late in an evening and bought 74 or so Big Macs with fries and Cokes for everyone in the restaurant? Bob did.

While Bob was indeed business-minded, his success can be credited to an astute evangelistic persona of closing relationships, not the specific deals. Bob was the Canadian lighting industry's evangelist who specialized in his acute vision of precise, yet sincere relationship-building. He implicitly understood the lines of business versus pleasure, and maximized both to the benefit of most any circumstance.

From Canadian Staging Projects (CSP), to Rosco Canada, Bob's incomparable persona and interpersonal sales skills elevated his ambitions that succeeded in becoming vice president at William F. White



(Sales) Limited, and putting the entity on the top shelf as Canada's largest theatrical and architectural lighting provider.

Accomplishments that would fulfill many personas; not Bob Johnston. Bob's next professional feat was to experience U.S. success within L.A.'s Matthews Group subsidiary, The Expendable Supply store.

But wait, there's more. Returning to Canada, Bob joined Huntley Christie's Christie Lites and then pretty much single-handedly directed Christie Lites Sales from a minor side entity of Christie Lites (as the emerging dominant stage lighting services rental house in the U.S.) to become Canada's premier theatrical and architectural lighting supplier, as he did with William F. White (Sales), with now an unparalleled market share eclipsing all others — by a long shot.

If all the aforementioned wasn't enough – and it would be for most – Bob's commitments were not lost on his family life. His love for his family – wife Karen, daughter Stephanie, and son Ryan – and the birth of grandchildren delighted Bob as I had never seen.

Bob knew the balances – work/life balances – and embraced them. Evangelized with an infectious optimism that was obvious to all that knew him. AND, he was a huge hockey fan, both as an advocate and player!

There is no contesting: Bob Johnston is remembered as the AVL entertainment industry icon who affected – and infected – those around him to adopt new ways for approaching business, relationship-building, and ambition, marrying the personal versus business dichotomy – across Canada.

For this, Bob Johnston has earned the respect and admiration of an industry that has been influenced and redefined in ways that few other personalities have impacted. On par with – among the list of industry icons both past and present – only a handful of others for whom our memories never fade for their contributions. Great company to be associated with, Bob.

BILL COONS

Director, Contact Distribution

If I tabled a great “Bob story,” it is about Bob endorsing the idea of going to a cowboy bar in the middle of nowhere in the middle of the night around Canmore, after a CITT show in Calgary, that was right out of a movie.

Everybody had a pickup truck with a gun rack in the parking lot or got there on a snowmobile. About 12 of us “theatre people” walk in the door at the same time, coming right from a trade show in suits and slacks/sport jackets, and almost everybody in the bar is wearing a cowboy hat.

You could literally hear the beer cap drop on the bar and go *wobble, wobble, wobble* ‘til it stopped in the dead silence like some scene out of an old spaghetti western. We all thought that this was going to now migrate to the bar scene in the *Blues Brothers* movie with a brawl. I can’t be sure, but I’m fairly confident that it was Bob’s voice over the dead silence saying something like, “We found the beer and the music, so let’s party!” The rest button had been pushed and we all then made a bunch of new friends that I do recall smelled significantly different than any of us.

The 120-plus-km/h marathon drive through a snowstorm in the pitch-black valleys of the mountains getting there was a whole other front-half of the story, each experienced differently in whichever car someone was driving there. Harry, my western rep, and myself were the last of the procession in a clunky U-Haul cube van loaded with gear, almost out of gas and barreling down the road trying to keep up to the five cars in front of us. The van had no interior lights, so we couldn’t see how fast we were going; and when we got out of the truck in the parking lot with our hearts pounding out of our chests, everybody commented in amazement that we didn’t go off the road at that speed – we had no idea of how dangerously fast we were going.

You can’t make this stuff up; but then, that was Bob’s life, I think.

VICTOR SVENNINGSON

40-year veteran of Canadian live AV industry, retired.

I met Bob when I had my first job in Toronto in the late ‘70s. I was 21 and Bob must have been 16 at CSP (Canadian Staging Projects). We pulled cable together for a show I was helping with. I still remember Bob and me working out our instructions from the LD. All the time thinking how cool this was.

Bob moved onto the sales desk as inside



BOB (LOOKING AT CAMERA) WITH FRIENDS AT A CITT SHOW

sales and then as a full-time salesperson. By then I was working as TD and Bob dropped off a very expensive lighting console, just handed this to me and said, “Try it, it might be what you need.” I was pretty blown away; people back then did not just hand something like this to a guy in his twenties. But that was Bob, knowing people and how to make a sale. Oh, and that console never did leave the building.

Bob worked tirelessly for the theatre industry. He is a founding member of the Ontario section of USITT. When CITT was created, Bob was there. We spent many meetings together followed by a trip to the pub afterward. Bob became president of the organization, and for much longer than he thought he would be.

Bob was a very competitive person and loved hockey. I cannot talk to this point but he played every week. His team was at a pretty high level, travelling to the E.U. each year to compete. He brought this game to his daily job where strategy and being fiercely competitive made him a force to be reckoned with.

Last story for now: I invited Bob to come and see one of the last live shows before the pandemic hit. A little theatre in Port Hope, ON, was doing *Chicago* and the whole building was humming with excitement and fun. Bob heard that the building was in need of a lighting network, and a few months later a system showed up on the loading dock. We could not tell a soul how it got there.

The last time we talked, a few weeks ago, Bob was telling me how fortunate he was to be with his family here in Cobourg, ON.



BOB WITH HIS WIFE KAREN

He has been a giant in the entertainment industry. Feared and loved, and always an honest man.

At Bob’s Celebration of Life, it was a tribute from his family. The family all spoke of the man who was loved and cherished. He was the person where you knew when he had entered the room, and he will be missed by many.

Professional Sound shares its deepest condolences with Bob’s family, colleagues, and many friends.

Steve Butterworth

By Ahmed Haroon

Steve Butterworth is a man of endless music faculties at his disposal. As the vice president of sales and marketing for Yamaha Canada Music, he oversees the company's music products, music education, and pro audio divisions. His success in the industry he credits to his formative years growing up in Burlington, ON, where he was exposed to opportunities to learn musical instruments from an early age. He spent his high school years training in marching and concert bands and eventually going on to play in the 180-strong Burlington Teen Tour Band, which attracts children from all over the Halton and Hamilton region.

"I was very fortunate to grow up in Burlington. They had really good music programs in the schools. I started with ukulele band around grade three or four, and then started in a junior concert band in grade seven," says Butterworth. "But then I switched to euphonium in grade eight. I started playing tuba and trombone and electric bass in high school. I had music teachers that just encouraged me to learn other instruments as well."

Butterworth went to Toronto's Humber College to study jazz, brass performance, and arrangement, but he never got to finish the program due to a faculty strike that cost students a semester. He proceeded to complete a four-year bachelor's program at McMaster University in music education as an adult learner.

"Just as I was graduating, I'd been in school for four years studying music education, I'd been working in the music store, [Lakeshore Music,] selling Yamaha band products. And I'd been working in the Navy band [in Hamilton]. And so, I was literally just waiting to find out about teachers' college in the spring of 1996," Butterworth remembers. "My mom had cut this ad out in the paper about a job at Yamaha looking for a sales consultant and product specialist — someone who knew about school music programs and who had a background in music education, and I was fortunate to be selected to have that opportunity."

As a sales consultant (Ontario) and product specialist (national) at Yamaha Canada Music, on his first day Butterworth was handed over additional sales duties for school programs in Manitoba and Saskatchewan. He explains how at the time

Canada was coming out of a recession and the company was rebuilding its workforce. His boss at the time wanted him to take on additional responsibilities and provinces. "I'm glad I did because I [only] knew how band school music worked in Ontario. I learnt a lot," Butterworth concedes.

He then went on to become the manager of the band and orchestra team at the company in 2003 and put together a team of competent sales and marketing people around himself. By 2007, he had taken on additional duties of an assistant manager for the music division looking after product procurement, customer service, and marketing functions. By 2010, he became a general manager and in 2015 a vice president of sales and marketing for the Music Division.

"I've kind of been on a journey growing up in business through the company. I've had a lot of mentorship from the senior leaders in the company and my colleagues, but also had a chance to take some courses through Yamaha Japan. One was a global leadership course, which was over three years. We'd do a week in Japan each year as well as regular monthly online sessions with Yamaha people from all around the world and from different functions; sales and marketing, factory managers, human resources, and finance."

Butterworth is also responsible for looking after Yamaha's specialized music education initiatives where high-quality orchestral and band instruments are provided to music programs across the tuba or trombone, down to the piccolo. "You will find Yamaha brass and woodwind instruments in professional symphony orchestras and every kind of orchestra in between." Additionally, he also oversees the running of the Yamaha's own corporate school in Markham, with its own 14 learning studio spaces as well as a network of independent licensed Yamaha schools across Canada.

"We have a number of independent Yamaha music schools that either are within Yamaha dealers or are standalone. Customers kind of grow up through your music school and become customers for life, hopefully. So, those [independent] schools are teaching the Yamaha curriculum. Most of the curriculum is started and focused on very young children, aged four to eight, and group lesson settings."



On how COVID-19 has changed the nature of buying of music and audio gear, Butterworth explains that sales channels through retail partners have now gone into a mix of bricks-and-mortar and click-and-mortar. "Music stores provide an advice-based sales environment and that customer experience was challenged during the pandemic; we need to ensure that comes back whether it is in-store or online."

Outside of his work with Yamaha, Butterworth used to perform in a 10-piece R&B/funk outfit until the pandemic hit. They performed "everything from old-school – Aretha Franklin; Stevie Wonder; Earth, Wind & Fire – to more modern takes on classic R&B and funk."

"And then I'm playing in a traditional jazz band, which is playing music from the 1920s and I play tuba in that band. This fall I'm playing tuba and trombone in a couple of concert bands around Oakville and Burlington. The lady that sits next to me was my grade eight music teacher who started me out and she's now playing euphonium in a concert band. And in the Oakville band, I'm substituting for my elementary school principal, Carl, who's a trombone player. It's kind of nice to get back to my roots of playing in a concert band and playing with people who got me started in music."

Ahmed Haroon is an Editorial & Content Assistant at Professional Sound.



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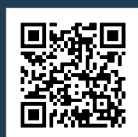
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Earthworks ETHOS Broadcast Condenser Microphone

By Andrew Leyenhorst

New Hampshire-based microphone maker Earthworks Audio are well-regarded for their industry-leading measurement microphones and its array of high-end products at large. Late in 2021, Earthworks released the ETHOS, a broadcast-style condenser mic aimed at voice talent from broadcast to podcasting to streaming. I'll give you an early spoiler and let you know that it's also unreal for singing and the vast majority of other sources, if I'm being entirely honest.

Boasting a 14mm diaphragm, an exceptional 11.67-microsecond rise time, and a vast frequency response of 20Hz – 30kHz, the ETHOS is a supercardioid condenser encased entirely in stainless steel – I've joked with a couple friends that I can't distinguish whether it's a microphone or a mortar shell due to its tiny, yet rugged construction – and available in two finishes, silver and black. To further detail the build, this mic is barely larger than an SM57, with a width of 6.7 in. and a diameter of 2.25 in., while weighing in at a solid, even pound.

Returning to the sonics, the ETHOS is rated for a maximum input of 145dB SPL, carries a 78dB (A-weighted) signal-to-noise ratio, and uses +48V phantom power, being a condenser. Also included with the mic is a custom foam windscreens that not only acts as a highly-effective plosive filter, but also inherently places the user at an optimal distance from the capsule due to its deep design. Plus, for added convenience, the mic includes a Triad-Orbit M2-R ball joint mic mount that allows for easy and precise placement.

It was hard not to fall in love with this mic; seldom does a mic, for all it's hyped up to be, sound so effortlessly *natural*. Across an assortment of preamps, the ETHOS sounds fantastic in every measure. When doing my first test recordings on speech, immediately I was greeted by a rich, smoothly-controlled, and accurate tone, even before any sort of processing. And to be honest, for many uses, this mic doesn't actually need any processing – and therein lies one of its greatest strengths. When you hear it out of the box, it's very clearly tuned to the human voice, and done so with precision. The supercardioid polar pattern is also a gift, with the mic offering remarkable off-axis rejection alongside its equally remarkable on-axis sensitivity and clarity.

This obviously makes it highly effective in the aforementioned situations – including broadcasting, podcasting, and streaming – and as I said before, it requires no processing to sound polished. Of course, there is some magic to be found when applying slight compression and bumping the EQ in a couple sweet spots; though sweetness is, in this case, in the ear of the beholder. For speech, I've personally found that I like a couple boosts around 120Hz, 1.7kHz, and 4.3kHz, just to subtly enhance both the richness and presence.

The ETHOS' effectiveness persists away from the host's desk and in the musical environment. It's become a favourite vocal mic of mine, with its richness and clarity really making a statement in my productions. The natural, controlled tone across the entire frequency spectrum means vocal recordings can be easily adapted to any mix, with the option to remove the pop filter adding even further dynamic control. The mic also performs well on highly-directional and/or highly-detailed sources like percussion or acoustic instruments, and exceptionally well in high-SPL situations like a guitar or bass cabinet.



While it sounds phenomenal and is easy to use (that being said, it's a microphone – it would be concerning if it were difficult), the Triad-Orbit MR-2 included with the mic is also a huge plus, as it makes setup and positioning blissfully easy compared to regular mic clips or mounts. Once again, this applies both in a voiceover context or in the studio. *Especially* in the studio, in fact. I hadn't realized what I was missing until I was miking up an acoustic guitar with the assistance of a ball joint. The added precision is certainly something to speak to. It's worth noting, however, that the mount doesn't actually come *with* the mic – it comes *on* it, with the mounting point being a permanent fixture. However, this mount can be removed and the mic can instead be screwed directly onto a stand. A 3/8-in. thread adapter is also included.

The entire ethos of this mic, so to speak, is to offer the full and thick tone of a broadcast dynamic mic, with the clarity and sensitivity of a condenser; and it's certainly an ethos I can subscribe to, because the character of the recordings produced by this mic is cyclically refreshing. It lives in a world of its own when it comes to broadcast-style mics, and with the small details accounted for as well, like the precision mount, Earthworks have created a stellar piece.

The only thing that could be considered a con with this mic is the price (around \$800 CAD), as it's some degree more expensive than the established voiceover classics. Of course, once you start using it, that's hardly an issue. Besides, the ETHOS can't really be compared amongst those classics anyway – it surpasses them.

Andrew Leyenhorst is a freelance Niagara-based producer, engineer, mixer, and the Assistant Editor of Professional Sound.

L-Acoustics L-ISA Studio 3D Audio Processor

By Andrew Leyenhorst

California-based L-Acoustics are well-known for their loudspeakers, professional home systems, IEMs, and L-ISA 3D audio processing, but for the longest time the company's immersive audio engine was only available as a cumbersome hardware unit geared towards large-scale live productions such as theatre. However, in 2021, L-ISA was ushered into the digital realm with L-ISA Studio, an all-software version of the engine that makes it easy for producers, engineers, and mixers – whether it be in live production, music recording, or audio for picture – to create intricate immersive audio experiences right from a laptop.

The software is capable of a great gamut of formats, from binaural stereo to Atmos to just about whatever else may be required by the project, and includes a handful of presets to get you started. Speaker layouts can of course be mapped according to whatever hardware system is in use, if you are indeed using a proper immersive system. That said, any speaker setup, real or virtual, built within L-ISA can be rendered and monitored binaurally, which serves multiple purposes.

In a live context, for example, perhaps you're building a show in pre-production and want to quickly share an idea about how a sound should move across the immersive space – just create your speaker layout in L-ISA Studio, program your movements, and then print it as a binaural MP3. Now anybody can listen in headphones and hear a representation of that idea. The same can be done for music or post mixes; the level of accessibility is very high. Worth noting, as well, is that with compatible peripherals, real-time head-tracking can be employed when mixing binaurally in headphones.

In a laptop-native environment, the software is actually surprisingly easy to set up, and is conceptually very intuitive in the way it works. Users will install two pieces of software, the L-ISA Processor and the L-ISA Controller. The Processor acts as the main hardware brain, while the Controller is where you'll mostly be making your art. The Processor will allow you to select an output device and physical outputs for the L-ISA engine, while in your DAW, you will make the L-ISA Audio Bridge the playback engine – this gets



your DAW and the L-ISA Controller talking.

From there, tracks in your DAW are assigned to L-ISA via your direct outs – each object you want to individually manipulate in L-ISA must go to its own output, where it will be piped through to the Controller, and can then be allocated to an object, or Source. As Sources are created in the Controller, a dropdown menu will appear in each instance of the L-ISA Source Control plug-in – insert this on any track where you wish to record automation back from the L-ISA Controller. Sources can also be grouped, and these groups can similarly have their automation recorded back into your DAW via the L-ISA Group Control plug-in.

Sources are viewed and manipulated from the Soundscape – the main interface – with a variety of placement parameters including Pan, Width, Distance, and Elevation. Sources can also be linked and manipulated as a stereo object, which also unlocks the Pan Width parameter. Also, per Source is an aux send that can be used for any manner of purposes. The Controller also features a suite of built-in reverbs that can also be customized, both in terms of temporal and spatial properties, with multiple different “Venue Types” available including Dry, Ambience, Theatre, Concert Hall, and Church – all with their own sub-selections of Space (Small, Medium, or Large) and Colour (Dark, Warm, Bright). Multiple reverbs can be crafted and each are given a unique OSD ID. These reverbs

also sound great, so perhaps something to consider when using L-ISA Studio – you might be better off leaving your reverb plug-ins behind because these are tailor-made for spatial applications beyond stereo.

Another great feature is Snapshots, which allows instant recall of a given parameter setup; these can represent scene changes, different sections of a song, or anything else that may require quick, drastic shifts of many objects at once. These, too, can be automated via MIDI or OSC.

While the L-ISA Studio suite is undoubtedly too deep to cover in one page, it's far more intuitive than what might be expected from software of its sophistication – and it's a killer processor. Setup is relatively painless (there's a great “L-ISA Quick Start” playlist on the L-Acoustics YouTube that untangles the process in about 30 minutes), and usage is quite simple and very fun, as it's a joy discovering all the things you can do with it, regardless of application.

Overall, L-ISA Studio is a killer take on the spatial audio processor, and the fact that something of its power is now available entirely in-the-box is something to be excited about.

Andrew Leyenhorst is a Niagara-based freelance producer, engineer, mixer, and the Assistant Editor of Professional Sound.

Minuendo Adjustable Lossless Earplugs

By Andrew Leyenhorst

You hear it often that the most valuable asset to an audio engineer or musician is their ears, and as such, it's important to treat them with care and a long-term view. As such, Norwegian designer and manufacturer Minuendo is offering up what they dub as "lossless" earplugs for audio and performing professionals, as well as concert-goers with a more discerning taste when it comes to hearing protection.

"Lossless" in this case obviously differs from the terms' typical use in relation to digital fidelity, but the same general principle applies; Minuendo earplugs are designed to retain auditory fidelity while greatly mitigating SPL at the ear. With their adjustable earplugs, each plug bears a small, stepless, sliding lever tab that controls the filter, allowing the wearer to select the amount of attenuation with a flat, natural response across all volumes – with no electronics or batteries required, as these are passive plugs. The attenuation levels range from an average of 7dB fully open to 25dB fully closed; but it's important to reiterate that the attenuator can be set to any level in between as well.

The Minuendos' passive, stepless attenuation is made possible by the company's patented membrane system. According to the Minuendo website's FAQ section, "a variably tensioned membrane does not by itself provide a good frequency response across the adjustable range. A secondary part of the acoustic filter must be adjusted in a synchronized manner to compensate and adjust for the varying resonance of the membrane. The Minuendo earplug lever simultaneously controls a combination of slit thickness, volumes, and membrane tensioning to achieve natural sound across the adjustable range." The website also says that the corrugated membrane reduces that annoying clicking sound you can get when moving your jaw.

What this boils down to, is that Minuendo's earplugs are manufactured using similar principles to that of premium, custom-molded earplugs rather than the more basic stepless plugs, which simply use small ports to filter certain frequencies through and out.

Included with the Minuendos are the plugs themselves and a small carrying case, a neck leash, and a pleasantly large selection of eartips in a variety of materials, sizes, and shapes. Plus, the rings on the outside of the plugs are magnetized, so they can be stuck together for storage.

I had the opportunity to try out the Minuendos in a couple different situations, both with and without a full-band PA. In any case, I found them to be very effective; finding a comfortable fit was made easy by the wealth of eartip choices, the attenuation levers are very smooth and easily accessible while being worn, and most importantly, the sound is excellent.

In a fully amplified setting (in the audience at a small outdoor rock show), I found myself going about halfway in terms of reduction, just to take off some of the harshness of the cymbals through the overheads, while still retaining clarity in the vocals and guitars. The earplugs were barely noticeable, delivering surprising transparency at all levels of attenuation, while remaining unobtrusive in my ears. The convenience of being able to make at-will adjustments is superb, and the response curve when moving the lever is remarkably smooth. Overall, an enhancement to the concert-going experience; naturally it's hard to resist the urge to pull them out anyway and face the music



head-on, but we all know that's a terrible idea – as fun as it is. These will keep you safe at the gig, and so long as the mix is good, may well enhance the experience depending on your taste.

I also brought them into the rehearsal space with a band during pre-production, allowing me to safely get up in the room with them while they played through the songs we'd selected. I found them to be immensely helpful in this context as a producer, as I was able to focus more on the details of the performances and songs rather than just being blasted with a wall of rock and roll. It's one of those interesting "addition by subtraction" situations, a lot like turning down the volume to gain perspective on a mix.

In the "in-the-room" situation, I preferred to keep the attenuation nearly wide open, as – surprise, surprise – cymbals and guitar amps don't hurt nearly as much when they're not being pushed through a big concert PA. The levels of ducking needed in rehearsal-type situations isn't quite as high, unless you're the drummer, I suppose. But, of course, it also depends on taste.

That said, I would highly recommend these to any studio personnel, including interns – you never know what kind of sessions you'll be working or sitting in on, and a lot of producers, and especially artists, like to crank the mains up *loud*. Same deal with drums on the live floor and amps in iso booths – loud and dangerous. Spare yourself from death-by-trap-hat.

My ultimate take is that Minuendo's Adjustable Lossless earplugs are a great grab for those looking for high-quality hearing protection quickly and affordably, with a highly satisfactory end result. For my part, they'll continue to make the trip with me to shows and the studio alike.

Andrew Leyenhorst is a Niagara-based freelance producer, engineer, mixer, and the Assistant Editor of Professional Sound.

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DEPT. 9 STUDIOS

Edmonton's New Full-Service
Recording Destination for Music,
Film & TV, the Web & More



LIVE ROOM

BY KEVIN YOUNG

The words “a state-of-the-art full-service production facility” are often used to describe facilities that offer stem-to-stern services. It’s fair to say that Dept.9 Studios takes the approach quite a bit farther than most; not just in terms of audio, but content creation in general.

Located in Edmonton’s Central Southside area, the 27,000-sq.-ft. facility offers up two soundstages, audio post-production facilities, video editing suites, a digital media lab, and a full-on recording studio. Beyond that, they offer production services, mastering, scoring, ADR, V/O, and Foley services. Not to mention a set shop, wardrobe/makeup, and prop room.

In addition to acting as a content creation/capture facility, through Dept.9 Music Inc., Dept.9 Digital, and Dept.9 Entertainment, the company can provide more to whoever they work with. Specifically, they also operate as a

copyright management/licensing company and publishing company (formerly Americana Music Publishing Inc.) in the creation of video games and apps, and nose-to-tail production of television, film, and web content for a variety of applications.

“So, we’re not only a fully-equipped recording studio, but we also have a Dolby Atmos mixing facility with an Avid S4 [mixing console], future-proofed to mix up to 11.1.6, and are a film/TV production facility with all the fixings in the way of video editing, green screen, and more at our disposal,” says Stewart Kirkwood, Dept.9’s studio manager, head engineer, and staff producer. “It’s really a one-stop-shop; if you want to come in and mix film or make a film, or come in and do all the score composition and audio recording, you can do it all here.”

The goal, he explains, is for this to act as a hub for content creation for local and regional

talent, as well as clients from out of province or even outside of Canada. “The main objective is to do our own content creation,” Kirkwood notes, likening the usage and output of Dept.9 to something along the lines of a classic film studio’s role, like MGM Studios for example – the kind of space from where – either as an incoming client/creative team working on their own or in partnership with one or more of the entities Dept.9 is comprised of – any kind of content can be conceptualized, created, and put out into the world.

Although Dept.9 opened roughly a year and a half ago, because of COVID the studio hasn’t had a “grand opening,” per se. Kirkwood, however – since joining the company about two-and-a-half years ago – has been very busy. Initially, he was intimately involved in turning the former chroming and plating facility into what it is now, consulting on the build of the recording studio and the Atmos room. “I

have a publishing deal with the publishing side of the business,” Kirkwood explains, “and, when I closed my studio down, they asked me to manage Dept.9. On the music side of things, I’m bringing in a lot of local clients that I worked with at my studio. Then, from a film perspective, people are bringing in ideas to us that we look over and see if we’re interested in co-developing with them.”

In terms of taking the building from what it was to its present state, “We took it right down to its bones,” he adds. During that process, Kirkwood worked closely with architectural consultant James Kumpula of Jaakko & Associates during the design and build to ensure the size and shape of the various control rooms and other spaces were appropriate for Dept.9’s decidedly multi-purpose needs.

Naturally, he notes, no effort was spared in the spaces to create a fully-isolated, acoustically-appropriate recording environment, and credits other partners, specifically FFA Consultants in Acoustics & Noise Control Ltd., and TWS Engineering for their work on the building’s electrical and mechanical infrastructure.

It seems like the perfect gig for Kirkwood, a songwriter/composer and producer in his own right, whose fascination for music and recording dates way back. “I started as a musician, but I remember doing multitrack recordings with two cassette decks back in the day; moving from one tape machine to the next and doing eight-track recordings as a kid. I got started very primitively,” he recalls.

These days, his digs are anything but primitive...

Among the smaller spaces available, there’s the 560-sq.-ft. audio post suite with theatre-style seating centred around an Avid S4 console, 105-in. LED TV, a 234-sq.-ft. video editing suite (with multiple 4K LED monitors, both of which have JBL loudspeakers for monitoring), the Digital Media Lab, and a 250-sq.-ft. space featuring multiple video displays and JBL 305P MKII speakers, which is set up for game and app developers to work in collaboration with their teams.

Additionally, Dept.9 provides a large and open production office space featuring 10 dropdown workstations, 30 individual lockers, a boardroom with a 55-in. video display, and two Polycom systems. Suffice to say that function, form, and comfort were taken into consideration in every space.

And that’s all before you get into the “marquis” room. Namely, Dept.9’s 5,200-sq.-ft. Studio A with its 17-ft.-clear height, a full lighting grid, and green screen that allows clients to produce a feature film, series, commercial, or music video, and their dedicated Dolby Atmos mixing room, which we’ll dig into in more detail shortly.

Kirkwood takes me through the layout: “When you enter the building, there’s its offices and boardrooms, the digital media lab, and production offices, which also act as writers’ rooms/boardrooms. And we have a full kitchen attached to that. Then you get to what we call the audio department...”

First up, there’s the control room, he continues: “It’s quite large; roughly 550-sq.-ft. I’ve currently got it set up for myself with Roland electronic drums and some keyboards.” At the centre of the control room, he explains, is a Neve Genesys 32-channel in-line console equipped with 1084 and 88R EQs and compressors, with capture facilitated via Pro Tools HDX 2 running on a 2019 3.2GHz 16 Core 192G Mac Pro.

Among the options for processing and plug-ins on offer are UAD’s OctoCore, Waves Mercury Bundle, Native Instruments Complete, the Ultimate Arturia V Collection 7, Toontrack Superior Drummer 3, Antares Auto-Tune, and Synchro Arts VocAlign.

And while you could certainly get by handily without any outboard gear, predictably, there’s plenty of that included: “All the stan-



dards and other external flavours,” Kirkwood adds. Among them, Neve 2254 and SSL G Series buss compressors, Manley’s Massive Passive EQ Mastering Edition, Teletronix LA-2A Limiters, Universal Audio 2-1176 dual-channel compressors, and a pair of Lexicon reverbs — a 480L and 300. For monitoring, it’s Genelec 8351BP, 8331AP, and 7370a loudspeakers that can be used in stereo or 5.1, along with the Avantone CLA-10s, and Auratone RCS three-way custom-built monitors powered by Bryston 2B and 4B amps.

“We haven’t done much with the 5.1 system yet, but I have had a listen to some old quad albums with a buddy of mine,” Kirkwood says, laughing. The entire Atmos post room, main control room, and the corresponding live rooms are outfitted exclusively with Prima-coustic treatments, he adds.

Moving into the spacious live room, beyond the main space there are two large iso booths. They’re equally sized with windows/doors centred to provide sightlines between the two booths, onto the live floor, and into the control room. “So, say we have to do an animated series and need separation between the two actors. That can happen but they still have sightlines. We also just did this session for a jazz album and the drummer had the main live room to himself. Meanwhile, we had our beautiful Bosendorfer 7-ft., 5-in. grand piano in one iso booth and the upright bass player in the other. But everyone was able to see each other.”

In addition to a comprehensive mic package, including various Neumann, AKG, Coles, Sennheiser, and Shure products, there are plenty of vintage and cutting-edge instruments available in-house, including a Nord Stage 3 and Arturia synth, Hammond D152 organ with Leslie 142 speaker, and multiple vintage guitars, basses, and amplifiers.

Then, of course, there’s the Atmos room...

“It’s essentially a small theatre,” explains Johnny Blerot, a go-to independent sound designer/recordist/post-production mix engineer in Edmonton’s thriving film and television industry, who works as a subcontractor at Dept.9 in post-production. “I run my own studio in my house and was asked by Dept.9 to help out in setting up the Dolby Atmos room. So, I’ve been working here as a freelancer, helping get everything up and running, and I’ll be helping



AUDIO POST ROOM



them out in the future as well.”

The room was spec’d out before Blerot got involved, but, he says, “I came in at the point where the system was being installed and, basically, we’ve been getting it up and running. I was involved with the tuning of the room with Dolby, which was pretty fun.” Blerot was also instrumental in tweaking the loudspeaker layout, suggesting the addition of two more ceiling speakers and additional surround elements. “So, now we’ve got four pairs of surround speakers on the sides and then six above.”

In all, there are 19 speaker outputs, Blerot explains. “So, in the room right now there are our L-C-R main front channels (three JBL C211s), four pairs of wall surrounds – our ‘wides,’ being the first pair that kind of expand the front L-C-R, then three more pairs including our rear [speakers], and the six ceiling speakers in three pairs of JBL LSR7081 surrounds and six JBL SCS8s ceiling-mounted as upper surrounds.” Low-frequency support

is provided by a JBL SUB 3635 and a JBL SUB 3635 bass management sub, all powered by Crown DCI 8|300N amps.

“We have an Avid S4 as our console, and two Pro Tools systems in the room,” Blerot continues. “The first one is the main mixing system, which is using the new Avid matrix interface, and the second as our recorder. It’s kind of like a traditional film re-recording/mixing room set up, where that second system is used for recording mixes and metering and stuff like that. Then we have a third system – the actual Dolby Atmos RMU – that’s the Atmos controller where you can do all of the object-orientated panning and so on. We send 128 channels over Dante to the RMU. Then the audio comes back to the recorder and we’re using a DAD-MOM controller [from Digital Audio Denmark] – a software-based volume control – for speaker systems.”

With the Avid S4 centred in the middle of the room for the mix position, he adds: “You can actually have dual operators on the

console, and share the two Pro Tools systems as well. That can also link up to the video editing suite. So, say you had someone editing your picture for film and doing small tweaks, you could synchronize and lock the Avid editing media composer to our Pro Tools systems. So, the editor could fire picture directly to our screen, which is pretty powerful in terms of capabilities.”

“There are all kinds of possibilities,” Blerot concludes, both in terms of workflow in the space itself and in terms of connectivity between various other spaces over Dante. “One practical application would be if we’re doing AVR, but I wanted to use the audio room in the recording studio and, say, patch that into the Atmos room. So, say I’m doing a mix in the Atmos room, we can just, using Dante, tie those rooms together to record an actor in one of the iso booths or something like that.”

“Because our cabling is all Cat6e, we can connect over Dante for audio, and for video we’ve got SDI lines running all over the place, as well, and are running a control system for that in the Atmos room. We’re just implementing a Trinnov Altitude 32 A/V receiver, so we’ll have the ability to stream content, as well. That’s one of the best A/V receivers you can get – it can decode 32 channels of the Atmos and is what all the streaming platforms use for QC-ing their content.”

Ultimately, when it comes to form and function, the facility has the infrastructure to take ideas and run with them, from conception to completion, without setting foot outside of the building — whether they’re developed in-house or pitched by other creators, and regardless of what type of medium or combination of mediums.

Without a doubt, Dept.9 has capabilities that set it apart from the average recording facility, and although, owing to COVID, external clients have been thinner on the ground than they would normally, it’s not like the space has been unused. Again, one of the primary functions of the facility is internal content creation, Kirkwood says: “Between internal productions and IP, and initiating a lot of projects we’re using our own music for, we’ve kept ourselves very busy. We’re also developing sketch comedy that we hope to sell broadcasters, working on internal webisodes on an array of topics, and live musical theatre podcasts.”

That said, they’re perfectly willing and able to accommodate external clients, of which there will be no dearth of given Alberta’s thriving film/TV market. “We’re getting calls. But, like I said, it’s a different model. You’d think that we’d be out there hustling for work, but we are really keeping ourselves occupied with our own stuff currently. And I’ve been bringing in some of my legacy clients I worked with in my previous studio. But the audio side of things – it’s just a portion of what we do here. Dept.9 is really a film and TV production facility that has a recording studio and post services.”

Kevin Young is a Toronto-based musician and freelance writer.



VIDEO EDITING SUITE



FILM STUDIO SUITE



DIGITAL MEDIA ROOM

DEPT.9 RECORDING GEAR LIST

CONTROL ROOM

- Neve Genesys 32ch in-line console. Fully equipped with 1084 and 88R EQs and compressors

MONITORING

- Genelec 8351BP, 8331AP & 7370a monitors (stereo or 5.1 setup)
- Avantone CLA-10 passive nearfield monitors
- Auratone RCS 3-way custom built monitors (powered by Bryston 2B & 4B amps)
- 6x Behringer Powerplay 16-channel headphone mixer
- 2x Focusrite Rednet XP2 headphone mixer
- 3x Neumann NDH20 audiophile headphones
- 6x AKG K275 headphones

COMPUTING

- Apple Mac Pro 2019 3.2GHz 16 Core 192G RadeonPro 580X 8G 2TBSSD
- Pro Tools HDX 2
- Avid HD MADI
- Avid Sync HD
- Avid MTRX Studio
- Avid Artist DNxIV
- Brainstorm DXD8 Universal Clock

MICROPHONES

- 2x Neumann U87
- 2x Neuman KM184
- 2x Neumann KM183
- 2x AKG C414
- 2x Coles 438
- 2x AKG D112
- 4x Sennheiser MD421
- 6x Shure Beta 57
- 2x Shure SM58
- 2x Sennheiser MKH 416-P48U33

PROCESSING/PLUG-INS

- UAD OCTO Core
- Waves Mercury Bundle
- Native Instruments Komplete Ultimate
- Arturia V Collection 7

- Toontrack Superior Drummer 3
- Antares Auto-Tune
- Synchro Arts VocAlign

OUTBOARD EQUIPMENT

- 2x Neve 2254 compressor
- SSL G Series buss compressor
- Manley Massive Passive EQ Mastering Edition
- 2x Teletronix LA-2A limiters
- Universal Audio 2-1176 dual-channel compressor
- Pendulum Audio PL-2 limiter
- Waves MAXX BCL
- Lexicon 480L reverb
- Lexicon 300 reverb

INSTRUMENTS

- Bosendorfer 7-ft., 5-in. grand piano
- Nord Stage 3 digital 88-key piano
- Arturia Keylab Essential 61 MIDI controller
- Hammond D-152 organ with Leslie 142 speaker (B3 in church cabinet)
- Vox AC30 amplifier
- Fender Vibro Champ EC Edition amplifier
- Rickenbacker 360 12-string electric guitar
- Gretsch G6120T-55VS Country Gentleman semi-hollow body guitar
- Fender American Standard Telecaster guitar
- Fender American Precision Bass with Jazz PU
- Gibson Les Paul Classic electric guitar
- Martin GPC-18E Acoustic Guitar
- Takamine FP-400SC 12 String Acoustic Taylor G Mini Bass
- Almanza CW 403 E1 classical guitar
- Epiphone Les Paul Standard guitar

Currents: Niagara's Power Transformed

A Storybook for Giants

By Andrew Leyenhorst



COURTESY: NIAGARA PARKS



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This show could not happen anywhere else in the world. From concept to execution, it was inspired by the history, architecture, and identity of this spectacular heritage building and its proximity to the Niagara River and Niagara Falls.

-Kim Viney, Senior Director of Business Development, Niagara Parks

Before the world's most famous waterfall became a bustling destination for travellers around the globe, it provided its home in Niagara with a resource that would ultimately become one of the most sacred of all – electricity. Decommissioned in 2006 after a century of operation under the Canadian Niagara Power Company, Niagara Parks and the Montreal studio from experience design company Thinkwell Group have reactivated the derelict facility as a spellbinding tourist attraction that recounts the history of hydroelectric power and its origins in Niagara Falls.

A multi-faceted attraction that opened in

September 2021 after nearly two years of development, during daytime hours the behemoth Niagara Parks Power Station boasts an offering of interpretive panels and interactive exhibits; at night, it becomes a fully-immersive artistic canvas as audiences are treated to Thinkwell's production of *Currents: Niagara's Power Transformed* — a visually, sonically, and emotionally powerful multimedia show demonstrating cutting-edge technical production value and unprecedented creativity, which was integrated and largely supplied by Solotech.

Upon reaching a decision to restore the decommissioned building, the only intact early-1900s power plant in the world, Niagara Parks (who acquired the lot in 2007) would end up tapping Thinkwell Montreal to design and produce an immersive experience, the nature of which was unknown at the time. It's telling of Thinkwell's reputation that the studio was chosen on the merit of its previous work, rather than based on a proposed experience for the building.

According to Thinkwell Studio Montreal and *Currents* Creative Director Émilie F. Grenier, the task was to “create an immersive, emotional, almost poetic story about the space, about the transformation from water to electricity, as well as the story of power, the station, and the workers; and to tell that story in a way that wasn't scientific or timeline-based,” as the daytime offering covers the raw history and educational content in droves.

“We had almost a carte blanche to create something engaging and remarkable,” Grenier continues. “And so, we knew that from a creative standpoint, we wanted to start from a language that many guests would understand; the hand-drawn approach of the aesthetics was born out of that, the idea to create something timeless and ageless. I call this experience a ‘storybook for giants.’ That’s how we went about designing these tableaux, almost like a pop-up book; you know, you turn the page and it’s this world that completely takes you in.”

The Experience

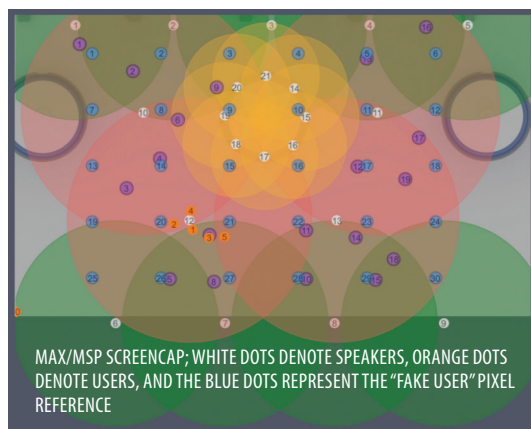
The world of *Currents* does completely take in the viewer, as it's an experience brought to life by state-of-the-art projection mapping, automated motion tracking, fully immersive audio, nuanced lighting, and of course, a powerful creative vision to inspire the mind-boggling technological performance delivered by the experience. While it is certainly theatrical in nature, the audience is placed *inside* the audiovisual experience, as the "theatre" in this show is an entire section of the power station, complete with the original generators that are not only present, but also a part of the show; which, in effect, begins the moment you step inside the building.

Upon entering the doors, much of this dimly-lit cathedral of industry is obscured by darkness, save for a layer of deep, blue light cutting through the haze about 9 to 10 ft. in the air, creating a feeling of being underwater while offering a slight glimpse of the building's scale. Guests then enter the gift shop, which doubles as a waiting area before the show starts. At showtime, the audience is led out onto a massive section of floor right in the middle of the hall, surrounded by the imposing generators that seemingly demand a sense of reverence.

Images begin to project onto the floor of the station beneath the audience's feet, before the floor and wall are eventually overtaken by the images, fully enveloping viewers into the evolving animations that move around them – and with them. Many elements of the show are literally dictated by the audience themselves, as motion tracking and projection mapping allow images to not only be projected beneath people's feet, but to actively track them as they move, and subsequently trigger interactions between other projections, including audio elements. Suffice to say it was fun to realize what was happening, and to see other people's responses.

"It was a pretty huge breakthrough for us," says Thinkwell Studio Montreal Project Manager Danny Tran. "We developed a tracking system that would simultaneously track movement of more than 100 guests. And the video and audio are generated from the [viewers] within the room; so, as they walk or run or connect, like when the electricity [on the ground] starts to connect people to each other, images and audio are fully generated depending on who's in there, how they're moving, and how they're interacting with each other. That was tailor-made for this project."

I'd actually experienced the show prior to speaking with the Thinkwell team – having gone into *Currents* for the first time not as a reporter, but during an on-a-whim outing with my mother, a history fanatic who loves big old



MAX/MSP SCREENCAP; WHITE DOTS DENOTE SPEAKERS, ORANGE DOTS DENOTE USERS, AND THE BLUE DOTS REPRESENT THE "FAKE USER" PIXEL REFERENCE

COURTESY: PHILIPPE HUGHES/THINKWELL STUDIO MONTREAL

buildings – but I spent a bit too much time gawking up at the ceiling in order to notice many of these subtleties; but this all goes to demonstrate that it's a show that needs to be experienced more than once, and it's one that goes far beyond just watching a story unfold on a screen.

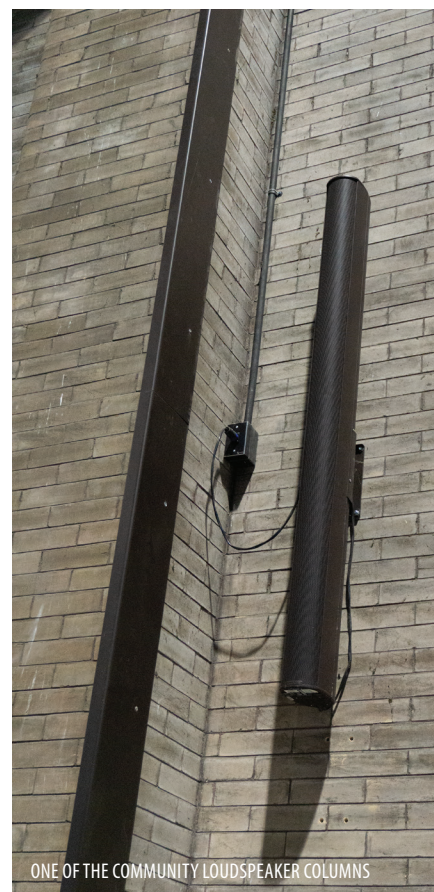
A great example of this is a moment in which projections on the generators, with pixel-perfect, seemingly three-dimensional placement, give the illusion that they've actually begun to rumble back to life as they start to "spin" – while speakers placed cleverly inside them make the feeling even more real.

"We wanted something that will be relevant aesthetically in 10 years, 20 years," Grenier says. "You know, digital projects age like dog years; you put something on the planet, and a few months later, sometimes it's aged. We wanted to avoid that trap, so we used really high-tech gear, but an ageless, timeless approach to creative."

The Production

Elaborating on the interactive audio experience, Thinkwell Studio Montreal Interactive Art Director, and *Currents*' Interactive Sound Designer Philippe Hughes explains, "I was working with Frédéric Trétout doing the visual effects, and I was like, 'Well, if we're making splashes, how do I get it to actually make a splash [sound]?' " Hughes then pulls up Max/MSP and begins to explain the philosophy of his immersive design, clarifying that he used circular node panning because it enables him to have a lookup table of speaker fade and crossover times.

Philippe Hughes: So, users show up as "blobs" – a user could be a group of three, four people close enough together – and when you have a sound, how do you output and make it sound as if it's right above them? So, what I'm doing is, let's say this is blob or user number one, and he's walking around. Here it's going to be coming out this speaker and then this speaker and this speaker, but if he's standing right in between them, it was a good



ONE OF THE COMMUNITY LOUDSPEAKER COLUMNS

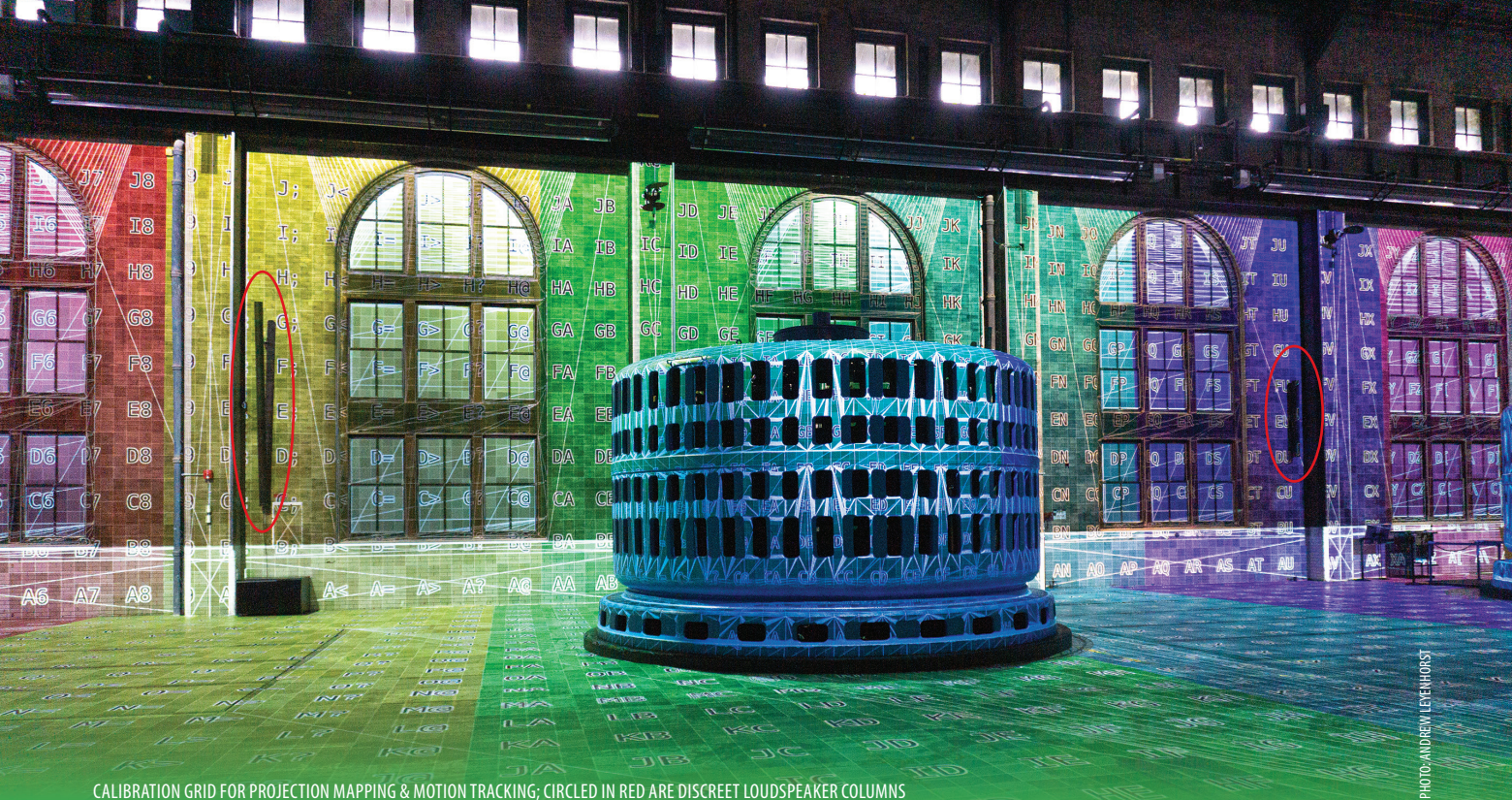
PHOTO: ANDREW LEVENHORST

way to crossfade all the speakers around him, as if the sound was coming right from him.

"Now, when you're walking around in – let's say you have a sound of water or something like that that's following you – for you, you're just going to witness the sound as if there's water in the speakers above you. It wouldn't be as if it's following you; where it gets interesting when you're doing user-following like that, is that it's for all the *other* users that are hearing you go by. Because if the sound's following you, and it's always above you, then you think it's always coming from the speakers. You know what I mean? You think it's stationary."

In very basic terms, the idea is based on object-based crossovers, Hughes confirms, when I clarify my understanding; as users move around and are picked up by the motion tracking, specific sounds will latch on and follow them around the space, passing from speaker to speaker. The question then becomes, if sounds are triggered based on the presence of active users, what happens to the areas where there aren't any people, or during scenes where the visuals aren't interactive? And then, how is it determined which sounds are actually triggered?

Hughes explains that he set up a grid of "fake" users within Max/MSP, and then overlaid highly-downscaled versions of the visual elements from the show, like splashes or electricity, onto a grid in TouchDesigner – such



CALIBRATION GRID FOR PROJECTION MAPPING & MOTION TRACKING; CIRCLED IN RED ARE DISCREET LOUDSPEAKER COLUMNS

PHOTO: ANDREW LEYENHORST

that the visual pixels and “fake” users in Max/MSP lined up one-to-one. In doing so, any activity over a certain threshold picked up by the motion tracking system lights up the corresponding pixel on the grid, which then tells the system to play a sound localized to that pixel. “If people aren’t moving around because they’re standing and watching the show, then I [trigger sounds] by analyzing the motion in the pixels,” Hughes clarifies.

Sounds themselves are plucked from a selection of about 16 files per element – pitch- and phase-shifted to avoid any kind of filtering or distortion – and round-robin’d as needed. The elements being triggered changed depending on the current visual scene within the show.

Overall, it’s an astonishingly clever interactive design, built on an advanced and groundbreaking calibration and tracking framework of Thinkwell’s own creation. So, to better understand the fundamentals, we’ll delve deeper into the skeleton of the production – from the humbling array of Barco projectors to the “wait, is this thing following me?” moment upon noticing the visual motion tracking, I knew right away this was something else entirely. Granted, it *is* – and it’s even more mind-bending than it seems, because the execution is so seamless. Thinkwell Studio Montreal and *Currents* Producer Antoine Roy-Larouche explains:

Roy-Larouche: “For a couple years now, Thinkwell has been developing its own auto-calibration software. So, for video projection in this case, we were using it on the wall, the generators, and on the floor also. And we’ve kind of built the tracking system on top of the

calibration system, so once we do the video calibration of the floor, we have a reference of which pixel is where for the multiple projectors that are projecting on the floor while our auto-calibration system is calculating the blending and everything so it’s pixel-perfect.

“For this project we’ve built on that; the tracking system is relying on the same pixel reference, which means we don’t need to tell the generative video content where the pixel is because the tracking system is using the exact same pixel that the video calibration system is using. So, we kind of gain a step, because once we decide which pixel we want to light up, it’s already mapped in our system.

“What’s happening with that is that we have our canvas and we have our infrared illuminator on the ceiling, so we can track more than 100 people; but if we do, we lose performance. So, right now [it’s optimized] so it’s a bit over 50 people we can track, and we track people that are actually active in the space. So, if you’re standing there and you’re not moving at all, that means you’re ‘not playing’ and the system will gradually forget that you’re there, and you’re going to free up a parking spot in the tracking system for somebody like a kid who’s running around and actually interacting with the show.

“So technically, it’s infrared illuminators and infrared cameras, our 7thSense server for the video playback and a TouchDesigner patch for the generative video content, and we’re relying on Max/MSP for all the generative sounds because, of course, when we have generative video, we also have generative sounds.”

And having generative sounds means having speakers, which for *Currents* is a role filled by

Biamp’s Community Loudspeakers brand. During a show like this, however, Roy-Larouche explains that it proved a challenge to design a speaker array that would deliver the show as intended, but remain physically unintrusive during the presentation.

“This was a challenge, because nobody ever wants to see any speakers, but you still have to have sound. So, we used more architectural styles of speaker, like straight lines that we’ve put close to the columns on the wall near [the piping], and we’ve painted the speakers the same kind of dirty brown colour as the pipes so they’re hidden in plain sight. So, that’s what we’ve done for the wall, and a lot of the sound comes from that, and the same for the subwoofer,” which is also rather nonchalantly placed along the front wall, but manages to go completely unnoticed if you’re not seeking it out. Roy-Larouche explains that there are also speakers hidden inside the central generators as well, coming to life during certain moments.

Upon a second visit to the station, this time during the day, and with Thinkwell staff onsite, technical director Julien Roy walked me through some of the gear – and pointed out to me where the speakers even were, as I had failed to locate them myself.

“That was the idea, to integrate those [discreetly] because the walls are our screen,” says Roy. “I was looking for an array system that was really bringing sound to the ears, and not the ceiling and the floor. These have a 10-degree projection angle, and it’s perfect; so, I’m able to have, I would say, 87 to 89dB on the actual show for people, with good coverage, good impact, and not a lot of reflections on the ceiling and floor,” Roy continues. Reflections are passively handled by the large pieces of drape

covering the windows not used in the show. Soft goods were provided by Joel Theatrical.

"We didn't want technology to become the sole show, but rather the place itself," Tran recounts. "So, how can we use technology to augment the space, especially using all the artifacts that were already in it? Especially with the generators that are sitting in the middle of the floor, those are your main actors; and that's sort of how the creative side took over."

Roy-Larouche substantiates this, adding "The idea was that the technology was as invisible as we could make it within the space. So, we put LEDs under the edges of the columns, or on the farm truss, et cetera; we're highlighting parts of the building, but you're not seeing the LEDs themselves, same for the speakers. . . . This applies for the night show, but also because when somebody comes in at 10 in the morning to visit the museum, it was the idea that as a visitor you shouldn't look up and see a bunch of projectors and speakers and whatever meant for the night offering. So, even during the day, we've tried to have everything as hidden or camouflaged as possible."

In order to make this all work and deliver as airtight an experience as possible, of course rigorous preparations were made ahead of time, with one of Solotech's contributions to the project outside of the actual integration being the use of their Montreal facilities by Thinkwell to prototype the show.

According to Roy-Larouche, *Currents* marked the first large-scale deployment of Thinkwell's tracking technology, and it wasn't possible to rely on mere hope and theory to ensure the system would work. "We already, of course, did generative video content, but this one involved multiple tracking cameras synchronized with one another, linked with the video that is itself on the floor, as well as the sound. So, we needed the space to do heavy prototyping. And working with Solotech, they have their space in Montreal that is really close to our office. So, we had the opportunity to work with them to install our prototyping environment with the actual equipment in their warehouse for more than a month." He notes, as well, the convenience of Solotech having an office in Toronto, which has made it easy to get boots on the ground in the event of a technical issue with the installation.

In terms of show control, there are two control rooms hidden deep in the building; one upstairs for video and audio, and another in the basement for lighting. Roy offers an overview of the AV control room, a small, purpose-built pseudo-closet that's packed to the brim with rack gear and a small computer desk.

"So, we have the 7thSense media players, one for the main wall and the generators, and one for the floor," the technical director explains. "All of the output from there is going into a 4K output within the [Datavideo] FX4s, and then those are split into 23 lines of HDMI that go through Lightware optical extenders to all 23 projectors.

"Then we have a remote camera for moni-

toring the show when we're not here, and we have the autocalibration server for pulling back the blending and making sure everything is coherent," Roy continues. "We also have our different isolated networks, so one for control, one for the lighting, and one for the Dante audio; everything is segregated. The [architecture] is also working off an LTC generator and an [Alcorn] McBride show control matched with a Crestron [tablet] to control everything."

With the show being programmed and mapped to incomprehensibly molecular specifics, the nice thing about it is that it's much less complicated to actually run, according to Solotech technical advisor for special projects, Martin Kyncl, who oversaw much of the integration. "It's basically all remotely operated. [Niagara Parks staff] turn it on in the morning, and they turn it off at night. It calibrates itself and it also has its own system to throw up flags if anything is off track or going wrong. . . . It's pretty autonomous, but it's all being monitored non-stop."

The Preparation

Before merely installing and putting on the show, creating it was a gargantuan undertaking across multiple teams, creative, technical, and beyond. It's important to keep in mind that not only was this an installation within the old plant, but a full restoration.

"It didn't look doable in the beginning," Kyncl comments. "The place was just ripped apart when I first saw the building. Like, the whole area where the gift shop is wasn't there; that's brand new. . . . They actually built a dam to stop the water from coming up to the building so they could repair the whole underpinning of the [structure], then they let the water back in once the work was done."

He explains that Niagara Parks not only had contractual baselines to meet in order to actually support the technical infrastructure, but the facility also needed to be able to safely and cleanly house millions of dollars' worth of equipment, which Roy-Larouche elaborates on, especially in regards to the control rooms. "When we were talking with Niagara Parks, they were like, 'Well, this is a 100-year-old building, it's never going to be that clean,' but it needs to be cleaned to a certain level for computers to run." As such, the purpose-built control rooms were fashioned to ensure the back-end gear is protected and properly maintained.

These factors played a part in why Kyncl, primarily a touring man, ended up advising the integration after initially only being tasked with handling the LED systems. "If you look at it from a nuts-and-bolts perspective, it's more like a live event that would be of a touring style. As far as the rigging, the kind of gear that's being used, and the environment that it needs to hold up in, it's all the super rugged stuff that we use for touring, because with

that building, you have the moisture and the low-frequency vibration and so on."

On the creative side, the building's inimitable architecture played a huge part in informing the show's elements, including the mapping of moving projections on the generators, windows in the animation blending flawlessly with and around the real windows of the plant, and so on. While the implementation is already fascinating, the means of getting there are also extremely compelling.

"You draw the building in 3D," Grenier begins. "And you work on a maquette and you know exactly which surfaces you're projecting on, and you're drawing onto the space. Nothing is left unknown; every line is on purpose. Technology and creative are really working hand-in-hand here to provide this new type of canvas to work on. It's still a blank canvas, but it has different shapes, and it has contours. So, perhaps it's not so blank, but it's a pale grey."

Grenier explains as well that the show's creative elements came together with Hughes' audio, the animations, David Drury's musical score, ATOMIC3's lighting design, and the other interactive designers all working on the same timeline. "The images were being drawn, there was an initial script that was written, and we started working on the animation and motion graphics at the same time as the musical score was being developed. So, in the end, we have a picture lock, and we wrap up the composition, but the very early sound maquettes were created at the same time as the images were being drawn. It was very much a parallel effort."

Niagara's Power Transformed

Not even six months removed from its opening, *Currents* has already begun collecting accolades on a global scale, winning the 2021 Blooloo Innovation Award in the Places category. In a tourist district built on attractions, this is easily the one you need to make time for, as it's something you simply haven't experienced in your life. Period.

The scope of the building itself is enough to make your jaw fall off, even without considering the mystique of the history attached to it. Add a breathtaking and unique entertainment experience that viscerally engages the audience in something so massive, yet nuanced such as it is, and you end up with an attraction that dares to be more compelling than the famous waterfall itself. There's certainly something to be said for a production that so delicately balances a reverence for history and the stories written in a distant past by the very spaces we occupy, with a style of presentation that reminds us that we're already living in some kind of fantastical future.

Andrew Leyenhorst is the Assistant Editor of Professional Sound.

RECORDING & MIXING

THE GOVERNOR GENERAL'S PERFORMING ARTS AWARDS



By Wayne Hawthorne

The Governor General's Performing Arts Awards are Canada's highest honour in the performing arts. These awards, whose nominees are decided by the general public, are given out each year to Canadian artists and arts volunteers in recognition of their contribution to arts and culture in Canada and beyond.

The yearly awards are normally given out at a lavish gala held at the National Arts Centre (NAC) in Ottawa. Due to the pandemic, the 2020 laureates became the 2021 laureates. As well, due to the changing climate around large gatherings, a special broadcast, produced by the NAC in partnership with the Governor General's Performing Arts Foundation and Vérité Films, was commissioned to celebrate the laureates instead of a gala. This bilingual broadcast aired on CBC and all its channels in English and French on Nov. 26, 2021.

The Recording

I was brought in to record the NAC Orchestra for this broadcast. With Peter McBoyle consulting, the choice to use DPA microphones for this project was a no-brainer. There was limited time with the orchestra and the schedule was fairly tight in order to record the many pieces that made up the broadcast. As a result, it was imperative to capture the performance in a manner that was true to the sonic footprint of the orchestra without a lot of manual tweaking of placements once the orchestra arrived. Of course, the DPA microphones did this in a stunning manner. DPA's Canadian distributor, GerrAudio Distribution, was a huge help and source of support in acquiring the required microphones for this important project.

Since the orchestra was already streaming

concerts online during the pandemic, much of the rigging for microphone placement positions were already generally set. It wasn't necessary to incur the labour and cost to recreate the proverbial wheel. Building on these arrangements, DPA microphones were used in a few primary positions: 4006 omnidirectional microphones for the Decca Tree centre, flanked by 4007 omni mics on the left and right portions of the tree. An A/B stereo pair of DPA 2006 twin diaphragm omnidirectional microphones was hung over the third row of seats and a pair of DPA 4015 wide cardioid mics were used as outriggers on either side of the Decca Tree. DPA 4099 instrument mics were also used on the piano. Spot mics for the various sections, general room, and surround microphones included mics from Royer, Lewitt, Shure, Sennheiser, and Neumann.

There were four days planned onsite, three of them with the orchestra. Day one was a technical setup and checks, and day two was a rehearsal day and no recording was done. This day, however, allowed for signal checks to make sure all the placements were sufficient for the actual recording. Day three was the recording day with the fourth day reserved for filming and backup recording time if needed.

The signal path for the recording went from the stage to an analog split. There was significant playback during this recording, so the split allowed monitors to feed the orchestra with in-ears. On the recording side, the split fed the SD rack with DiGiCo high-end 32-bit DAC preamps. This, in turn, fed via Opticore into the DiGiCo SD10 desk housed in the basement musicians' lounge that had been turned into a control room for the streaming productions. Both the console and the rack are part of the NAC's complement of DiGiCo

consoles that were included in the facility's recent technical update.

For the recording capture, my company's (Click Track Audio) mobile recording rig was used. This features two TASCAM DA-6400DP hard disk recorders for the primary capture. MADI was sent to/from the console through the recorders; inserted in the MADI chain was Click Track's RME Digiface Dante interface, which allowed a laptop to be used for the backup record while also allowing playback to be inserted using the Digiface's Dante network. Other items in the rig were the Rosendahl Nanosyncs providing the 96kHz clock for the entire chain, as well as a Blackmagic Design Hyperdeck Pro to capture video to assist later for reference, if needed. Audio and video were also synchronized via timecode generated from a Timecode Systems ;pulse fed into a Brainstorm Electronics Destripalyzer.

During a recording such as this, a "throw-back" to the inline console days is used. In this case, the recorders are placed on an insert right after the preamp. Once in record ready, all the signals being monitored are heard through recorders, ensuring that the monitoring is done off-tape and providing some level of confidence when recording. As well, it allows any playback to occur without flipping inputs or creating a separate playback mix.

The Mix

While the initial plan was to record, document, and provide the tracks to the production company, the director, Joel Ivany, and the production company, Vérité Films, asked me to continue with the project and provide music mixes of the pieces performed by the orchestra.



CONTROL ROOM



DPA MICS HUNG ON THE DECCA TREE & AS OUTRIGGERS



MIXING ROOM

For each of the laureates, a piece of music, dance, or a video was being created to honour their work, surrounded by interviews with friends, family, and other stars describing who the laureate is as a person and why they deserve the award.

Some of the musical elements that used the orchestra also had other elements recorded across the country. The production filmed elements literally around the world and the audio followed a similar trajectory. For example, the musical element for Laureate Alexina Louie, a segment of her piece “Scarlett Princess” included the NAC Orchestra, a choir, and the leads all recorded separately. The recording of each segment required a stereo rough mix to be created for the recording of the next element. To illustrate, once the orchestra recording was completed, a stereo mix was created to allow the choir to be recorded in Toronto. Those files were sent back, and a new stereo mix was created to allow recording of the soprano in Vancouver, followed by another mix for the recording of the male tenor in Toronto. All of these submixes were then mixed for the final.

Steven Page’s viral song “Canada Loves You Back” for Ryan Reynolds had a similar treatment, with the elements being recorded in Ottawa, Upstate New York, and Toronto. All the elements for “Canada Loves You Back” were sent to me and then forwarded to Paul Forgues who mixed the band as well as the orchestra and choir for Page.

All the musical elements were mixed in 5.1 in Pro Tools Ultimate. Monitoring was done through a Genelec system that featured three 8330A (L-C-R), two 8320A (L-R), and a 7350 subwoofer. The Pro Tools system interfaced from a MacBook Pro through a Dante network using the RME Digiface Dante into the venerable Yamaha DM2000 mixing console.

In terms of creating the mix, the DPA Decca Tree became the “anchor” element of the mix. However, one element that became clear during the process was that the “spaciousness” of the NAC’s Southam Hall created a somewhat too distant sound and, when layered with the video roughs of the various pieces, created too much space that contrasted with the intimacy that the

filming called for. As such, many of the close-mic’d sections of the orchestra were used to fill in the Tree. These also allowed for subtle level bumps of various instruments as the video edit used close-in shots of the orchestra playing.

The bussing of the signals became important in managing the orchestra sound. One of the important issues that had to be considered in the music mix is loudness and dynamic range. The orchestra, being an orchestra, achieves a massive dynamic range; it’s one of the markers of what makes an orchestra spectacular to listen to. For a broadcast special, however, the loudness range is capped at +/- 2 LU. Compressing an orchestra that much would serve to squeeze the life out of the performance and lose the detail.

The bussing structure is how the compression is handled. Each primary instrument group was compressed slightly — no more than approximately 3-4dB of compression at a time. As each group made its way through the mix into a larger bus, that bus was compressed slightly more until the master outputs had a dynamic range of around 8-10 LU. The project was delivered at that so that once dialogue was added, the audio post could decide how much more compression was required. At that point, though, additional compression wouldn’t have as much of a detrimental effect as it would without the staged compression.

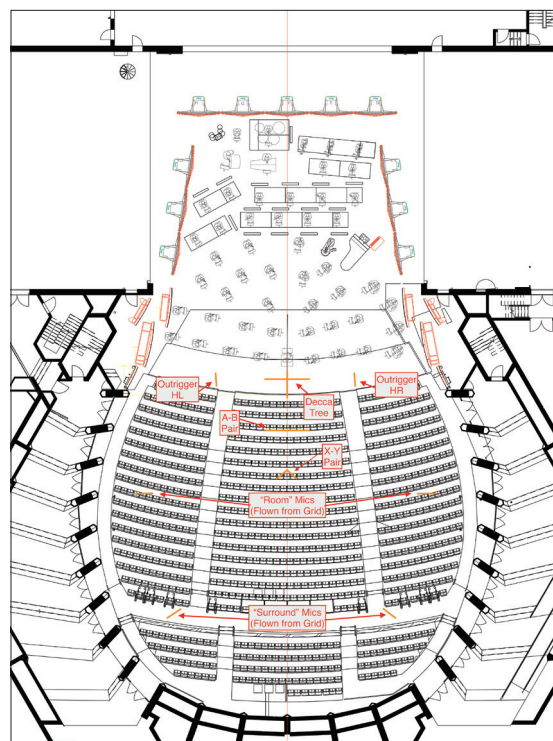
In terms of panning in the 5.1 field, each orchestral element was gently panned across the L-C-R field according to its relative position. The room mics were panned to their relative position in the hall, directly “due east” and “due west” to the sides of the listener, and the surround microphones were the only elements placed in the L and R channels. These nicely captured the rear of the room and reflections from the orchestra to give enough space to the mix. For the low end, the basses, trombones, timpani, bass drum, and kick drum

were placed in the LFE channel in addition to the main mix.

It isn’t often that one gets to record and mix a world-class orchestra, and even less often to have that mix saluting the titans of Canada’s arts world. It was an honour to be involved with this project and work with so many talented and passionate people to honour Canada’s own.

The 2021 Governor General’s Performing Arts Awards can be streamed for free on CBC Gem.

Wayne Hawthorne, P. Eng., is the owner and operator of Click Track Audio, a mobile production company that specializes in high-track-count remote recording, live-to-air broadcasts, and music mixing. He is also a professor in Algonquin College’s Music Industry Arts program, www.clicktrackaudio.ca.



The Unsung Heroes of Location Sound

Digging into a Unique, Tough
& Exhilarating Niche of Recording

By Michael Raine



In the world of film, television, and commercials, location sound mixer/recordists do not get the recognition they deserve. Despite the fact that bad sound can ruin even the greatest picture, they remain the unsung heroes of the video world. It's something that the professionals we've talked to for this special look at location recording have learned to accept. But nonetheless, they'll also be the first to tell you they have an incredibly cool job that keeps them on their toes and excited for the next gig.

So, let's find out how they do what they do, and the keys to their success. But first, to quickly introduce our panel...



Edward Almeida is a Quebec-based location recordist who also works in post-production. His location recording work spans TV, film, documentary, and commercials.



Adam Clark is the owner of Toronto Sound, a location recording and post-production company. Their location sound clients include deadmau5, Tim Hortons, WestJet, Canadian Tire, and more.



Dave Pullmer is a Vancouver-based location recordist and sound mixer who has worked with Lululemon, the NHL, and Red Bull, as well as in television, documentaries, and feature films.



Kevin Sands is a B.C.-based location recordist/mixer who has won multiple Leo Awards for Best Sound. He's worked on dozens of movies and hundreds of television episodes, including *The Boy*, *Cocaine Godmother*, *Stargate Atlantis*, *Get Shorty*, and many more.



Cory Sewell is a Halifax-based location recordist/mixer whose credits include *The Curse of Oak Island*, *Sickboy*, *Master Chef Canada*, *Brojects*, *Great Canadian Baking Show*, and many more.

Responses have been edited for length and clarity.

PS: In your early years, what was the key to turn one location sound job into others to push your career forward?



Edward Almeida: It's important before you go on site to know who you're dealing with. For example, what's their past work? If

you go on set and you're dealing with the actors or clients and you don't really know what they're about, or their product or their background or the work that they've been involved in, it doesn't look that good on you. So, it's always really good to come prepared and know who you're working with. Just look into their background, see what they've done so you're familiar in it. In fact, it makes something to chat about. Like, "Hey, I saw that you worked on XYZ. I really liked that." It ties into the interpersonal aspect of things. That's going to lead them to referring you, assuming you do a good job with your sound.



Adam Clark: Sound is half the picture, but know that you're not going to get half the recognition. You're only going to get noticed if it's a

bad thing that you've done. So, accept hearing nothing at the end of a set, but know that you did the very best that you could on that set, and be kind to people... Turning one job into another for me was about my attitude and learning to shift my attitude to become the friendly sound guy who works with people in a collaborative setting, and who banks goodwill so that I can

pull on it. Basically, it was just banking goodwill, working on a set and being friendly, and doing the best that I could at the end of it. And as long as you can walk away from a set and take that deep breath, and let the anxiety leave you, and whatever stresses from the day leave you, and then you move on to the next set, and you were still able to smile and be friendly to people, you'll always get work because people remember attitude.



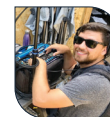
Dave Pullmer: If people like working with you, they'll call you again, or pass your name along to someone else. There

are a lot of technical aspects that are required to the job, but even more important is the social side of things. Getting along with everyone and being a nice person goes a long way, more so than being a technical whiz. In the first few years I did a lot of networking, going for coffees with sound mixers, asking if I could shadow them on set for a scene or two. I still work with a lot of those mixers who were open to me when I was first reaching out, and from that I've really learned and appreciated the idea of paying it forward. If anyone asks me to go for a coffee or have a chat, I'm always game.



Kevin Sands: Well, it was a struggle, I tell you. Because I was naive and excited, I went out and blew my life savings – or a small inheritance I got from my parents, bless their hearts – and I bought my first sound

package. I think it was about \$70,000 and in the in the mid '90s, that was a significant amount of money, and then I didn't work for over a year. I won't get into it, but I had some union problems. It forced me to move to B.C.... which was good because it was just starting to take off. Then after that, once you get on with a producer or production manager, and your work gets out there in a market where there's a lot of demand and not much supply, I worked hard and heavy for 10 years; it was just nonstop.



Cory Sewell: It was all about networking and putting myself out there. It's the connections you make along the way that

ultimately push your career forward. I continue to get recommendations from people I've worked with years ago on one-off shoots, so you never know when that contact you made will come in handy. Early on in my career, I did a lot of short films and other shoots volunteering my time to meet people and get my name out there. That may not be for everyone, but it definitely helped my situation. If you bring a good attitude and come prepared, that alone can go a long way. You can be the most skilled, have the latest and greatest gear, but if you don't get along well with your fellow crew members or clients, you may not get that recommendation you need from your peers for that next gig. These days there are plenty of other sources, like Facebook groups, JWsound forums, or even sites like ProductionHub.com where you can look for work and/or advertise yourself.

PS: When working on a project, what kind of communication do you have with the location manager (or whoever is doing the location scouting)?



Almeida: I've had encounters where they definitely take it into consideration and they are in contact with the location sound

department. To me, that screams of experience and just a higher calibre of professionalism, because they know that that will impact the production, whereas a lot of other people don't care; they just think about the image. It's about the shot and in terms of sound, well, it's a "we'll fix it in post" type of attitude.

Hollywood movies, most of them at least, they involve the sound mixer in the process and they get to go on [location] scouting.... Anything else that's of lesser calibre, the majority of the time, they don't. The productions don't really pay for it or think about it...



Clark: Not a lot. In commercials, it's been interesting. The scouts are getting closer and closer to the shoot day. Sometimes

they're not locking a location until a few days before the shoot day. And of course, sound isn't brought out on the location scouts, usually. So, my relationship with location managers... is about being super polite to them on set, getting to know them as people, so that when we're in a scenario that is super tricky – because we're in an area with really bad background noise because the location wasn't thought of from a sound perspective but I have to work around it – I can turn towards them as a friend and a human being and say, "Hey, is there anything you can do?"

So, I get to know them as people and not as just the role, so that when I ask them for something, I know if I'm overextending or not.... Right at the beginning, I like to memorize names, who the person is, what's going on in their life, and stuff like that. So, when a problem comes up, it's not just the sound recordist who's asking, it's Adam, the recordist who is friendly with you and wants to work with you on these things and make this a collaborative initiative.



Pullmer: I've been mostly working on documentaries and commercials, so it's pretty rare for me to have communication about

the locations in advance of a shoot. It's more common in the narrative world for sound mixers to be included on location scouts. I do sympathize with producers and location managers as it can be hard to find a space that satisfies both sound and picture. I recently shot a documentary that was beside an active train track, helicopter launch, and was in one of our busier neighborhoods for ambulance activity. We were stopping the interviews every few minutes and it was very disruptive to the flow of the interview. Also, a lot of the "studios" in our city aren't treated for sound, so they can feel more like you're shooting in a garage. I think it's safe to say a lot of people, when scouting, focus on the visuals and don't think about potential noise issues in the interior or surrounding neighborhood. It makes every job interesting!



Sands: As far as location people and communication on set, it's gotten a lot a lot better now. But in terms of location scouting, that's still in the dark ages. It depends on the director. There are people like the Coen Brothers who are sound freaks and they shoot for sound and they get it right. Then there's other directors who don't even want to know you. Like, "You're the sound guy, don't talk to me." So, there's all of that.

For example, years ago I did a show with a director, René Bonnière, and this was back in the day, so no assistant and split tracks. René Bonnière *loves* sound. He was a French director, and I was like, "I can't believe it, this guy's actually talking to me" and we actually did a perfect show! I've still got the letter from MGM and the producer, because he said it was the first time in his career that had ever happened. When they cut together the tracks, it sounded like a finished mix as far as dialogue. Post wanted to add a couple of add-ons and the producer wouldn't allow it because this had not happened before. But that was because of the director and me communicating. If I was in a situation where I was compromised because of wide-and-tights or I had a bad wire on somebody, I could go, "Hey, René,

excuse me, sir, I'm having problem getting this," and he would say, "Well, what would you suggest, Kevin?" I'd say, "Well, in this particular case, can we strike the wide camera? Let me get a microphone over the actor, we'll get the money, and then we can move on." No waiting, no fuss, it's communication. That was 1998 and there haven't been any more perfect shows [laughs].



Sewell: It doesn't matter what flashy new gear you have, if you find out last minute that they've scheduled you to record

exterior interviews next to an international airport, you could be in trouble (true story). Sound mixers should always be invited to the tech/location scouts, depending on the type of shoot it is — sometimes there just isn't one. It's something you should always inquire about, and just go — save yourself some time and peace of mind. It's better than showing up at the pub location and realizing you have a dozen beer fridges and freezers to somehow turn off quickly.

I personally like to already know the problems going in, and know who to talk to about eliminating them. It is good practice to stay in communication with the locations department. Sometimes they're aware of potential problems that you may have overlooked and can give you a heads up. This could be something like a heating/cooling system turning on mid-take that wasn't on during setup.

PS: Is there an example from your past where you learned a recording lesson in the field "the hard way" and what did it change for you moving forward?



Almeida: The one that sticks out to me most is a time where we were recording a very famous, Nobel Prize-winning scien-

tist who's one of the founding fathers of AI... They wanted to do the interview in a specific part of this building that was full of [computer] servers. It was servers everywhere; it looked like you're inside of a brain, and it's all glass. I could see why you would want to have that as a visual, but the noise in there was horrendous!

I'm looking at them, like, "You guys

are kidding, right? No, we can't we can't do it; please listen..." So, they listen and are like, "yeah, it's pretty bad, but is this something that we can fix in post?" I'm like, "Look, I do post also and I have RX 8 Advanced and I'm telling you, you cannot fix that." You can't polish a turd — well, you can to a certain point, but unless you're some type of alchemist turning shit into gold, it's just not going to be good [laughs]. And on top of that, because of the nature of the noise, you're going to be removing frequencies of the voice in the dialogue, plus the signal-to-noise ratio is super high. And using a cardioid or a lav with the body as a shield is impossible because the servers were everywhere. So, I told them, "No man, please look, this is going to be bad," and they were like, "Just do it anyways."

I learned right then and there that it's my department, right? So, it's my responsibility to say, "No, it's not going to work. The sound will be useless."



Clark: I learned safety is paramount on set. I was forgotten in a forest on a job and had to hike

back 45 minutes through freezing cold in northern Ontario, and succumbed to frostbite on my hands and feet and had to go to the hospital, and I had severe hypothermia and stuff. And it's because I had done this low-budget set with no safety or anything to it and I nearly died. This was years ago and I was working on sets that were low-budget, and they were skimping on safety. I was in it because I was this young, bright-eyed new mixer/recorder who wanted to make a name in the industry and was willing to stay behind when a bad call was made, even though a blizzard was coming in and stuff. I thought I was invincible and I slowly started to realize that I'm not invincible and the film industry can be prone to scenarios where you might find yourself in an unsafe situation.

So, I started doing more background checks on sets. I started doing more due diligence and charging more in my budget so I could be on the higher-budget sets because they pay for safety. I really started working towards trying to bill at a premium rate, go on to premium sets, and ones that respect the safety of the individuals on it.



Pullmer: I was doing sound on a music video, recording some acapella singing by a river in the Squamish backcountry. I had only done a handful of jobs at this point and still had a lot to learn. The AD was probably also pretty green and was really rushing the process of our talent being mic'd up. I wired up the talent, we all walked down to the river, and I started wondering why I wasn't getting any signal from the wireless on her. After a bit of troubleshooting, I realized I had put the receiver on talent and had the transmitter in my bag [laughs]. It ended up not being a big deal as I was also booming her, and we recorded wild lines away from the river. So, learning to work under pressure and not be bothered by it is very important and comes with time. Also, making these sorts of mistakes on lower budget jobs when you're first starting out is a good place to be doing them when the stakes are lower.

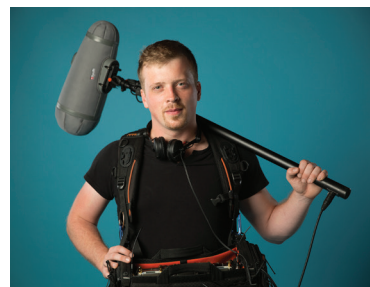


Sands: I'm at the end of my career right now, so talking about hard lessons, I've always chased gear and I always want to have the best gear because I know if you're not the smartest guy in the world, you're only as good as your gear, right? I was always trying to be at the forefront of the switches from analog to linear DAT to the new digital to file-based to multitrack and so on. But now, my hardest lesson is you have to know when to stop. There's a lot of bright young mixers out here, man, and now there's new gear out. Now, the [Zaxcom] Deva and the [Aaton Digital] Cantar location mixer-recorders are 24 tracks and they're compact, but they're \$23,000 or \$28,000 or whatever it is. So, when do you stop chasing gear and putting yourself in that [financial] position? If there's a downturn in the industry, there are a lot of people out there running around with five- and six-figure debt and wondering where their next gig is coming from. So, that's always been a tough one.

PS: Modern tools by CEDAR, iZotope, and other companies have made the job of fixing bad sound much better than it used to be. So, has sound restoration technology changed the equation in terms



EDWARD ALMEIDA



ADAM CLARK



DAVE PULLMER



KEVIN SANDS



CORY SEWELL

of assessing whether locations are suitable/workable for audio purposes?



Almeida: I would say yes, but I don't want to say that in a way that encourages it. It is for fixing things in post, but it's not so that we can start relying on it. It's not a crutch, but it is a game changer. I call it "voodoo" because it's just phenomenal, especially iZotope RX. I find it to be the top because they have amazing algorithms and they're constantly improving by actually listening to the users. And if you couple that with Dialog Match, the other iZotope plug-in, that's phenomenal. You can choose a good take from the boom, and then you can choose another take where you prefer the lav, but now instead of having to go through tedious EQing to match them, you can literally take the sample of the boom and match that to your lav and now your lav has an EQ profile that matches your boom. It really increases the speed of your workflow and it's definitely a game changer.



Clark: My workflow has changed with the incorporation of CEDAR DNS and active noise reduction on set. Four years ago, I was playing with the idea and just incorporated them into my kits. Now they're very much a steady part of my kit. It's the same with Sound Devices releasing their NoiseAssist program. So, noise reduction is very much coming onto the set and it's changing our job because of the fact that you can be on set, you're recording dialogue, and now if you can't get that noise off, you can have an evaluation track that is noise reduced and you can know if it sounds good, it means that post, as long as I get them room tone and other things, can do a lot with this.

So, I think workflow has changed in my incorporation of clients and the fact that now I'm doing a lot more, almost, sound surveys on set. I do a lot more when I come onto set. I turn on my recorder and I listen to the environment, and I listen to what I can work with and what I can't work with, and I play with it from there. This makes me easier to work with on set instead of being the person who speaks up about everything. It's more so about like, "Hey,

can you turn that off? If you can't, let me know and I'll add it in my notes." Then I'll crank the CEDAR up and have a look at it off of there. So, it's more about trying to be accommodating and stuff rather than feeling like it's the end of the world when it's a noisy location. I'm leveraging this technology so that I can give clients a feeling of ease while also doing my job and bringing the puzzle pieces together to be able to fix it... But I don't rely on it, I use it to decrease the stress I have on set and it gives me more control.



Pullmer: It hasn't changed my workflow drastically. While there are recorders that have CEDAR plug-ins in them now, most of the projects I work on have a post-production team that will be able to work on all of that in a quiet studio setting. When on location, I still try my best to focus on minimizing noises that are under our control, asking for another take or for a pause, and getting room tone if it will be helpful to those working on the project down the line. I do think it's cool that some recorders have NR built into them, and it could be used as a tool to assess potential issues while on location, but I probably wouldn't use them unless I had a discussion with post beforehand.



Sands: That's an excellent question. The only answer I can give you is it's a blessing and a curse, because the more they can fix it in post, the less attention they pay on set. It boils back to who you're working with and this attitude of "I'll fix it in post" or "we can't wait for sound."

For years I didn't have an assistant, so I would wire the talent and I know if I got a wire on somebody, if it's due to whatever kind of costume they have, I just know from years of experience that if I'm given a minute or two, I can probably clean that up and fix it, or if there's no way I'm going to fix that. And there's other examples where I don't care how good CEDAR or iZotope are, it's irrelevant because the sound will be so bad that it isn't going to be fixed by a plug-in.

I did a show years ago called *Strange Frequency* – ironic – and it was sort of like a *Twilight Zone* for the

music industry. The host of it was Roger Daltrey [from The Who] and it was really a cool show. Anyway, bless her heart, the costumer came up to me because she worked with me in the past and she says, "Kevin, we got a problem with the costume they want to put on him," and she brought me this silk suit. The whole suit; shirt, tie, everything was silk. I just went, "Oh, god." So, I said "thanks for flagging it for me" and I hung it up. I called a meeting and said, "I want the director and the executive producer and the producer to come to set please." This was a week or two before we shot. I said, "This is going to be a problem." (I should also say, never point out a problem to anybody unless you got a solution. Otherwise, you're just being a pain, right?) So, what I did was I gave them my headset off my board and I said, "Okay, listen," and I held up my lav about six inches from the costume. I just went in and I touched the costume, and they just went, "That sounds like a forest fire!" I went, "Yes, that's the point. I will not be able to wire our main talent on this. This costume looks great, by the way, but I won't be able to wire this." So right away, it was, "Well, what do we do?" ... We got through the show really well, but again, it was about communication between departments. If Christine had not given me that warning, so I could warn them, we would have shown up on set on Monday and I would have a huge problem.



Sewell: I think that CEDAR DNS units and their software can be a major help, but I try not to think about how this can be fixed in post while I'm recording. Having the CEDAR sdnx in the field with you, like on the new Sound Devices Scorpio recorder, I think it's perfect for certain live situations like broadcast, but my goal is to deliver the raw audio files as clean as possible without processing/filtering too much. I'll leave the noise suppression decisions to my friends in post.

Breaking out the heavy-duty wind protection or taking another look at where you positioned the lav mic and dealing with the problem on set should always come first; that's what the job entails. We can hold 30 more seconds for the plane overhead to pass, instead of just rolling with it, and thinking to myself, *ah it's fine, it can be fixed later.*



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That being said, there is a time and place, and there's always going to be moments where the acoustics are terrible, the background traffic noise is horrendous, or the wardrobe is problematic, and it's truly out of your control. I think having the option to determine if questionable location audio can be saved with such hardware and plug-ins, before making ADR the final decision, is a really great thing.

PS: As far as your location recording package, what are the key pieces for you and does it change much between jobs?



Almeida: There's a lot of good brands, but I went with Wisycom because I wanted to have true wide-band frequency diversity so that I could go anywhere in the world. When you're traveling, going international, you don't have to have another kit for different frequencies. Plus, the stability of their RF, I just love it. So, I've been pretty much Wisycom all the way. I am considering incorporating Lectrosonics just because they were the first ones and I know a lot of big names that are using it.

For mics, it's Sennheiser, I love DPA, and Sanken stuff. The stuff from DPA I like are the 4061 for the higher SPL, and the 6060 Subminiature because it's super easy to hide. I like having the 4017B [shotgun mic], also from DPA. I really enjoy, obviously, the classic [Sanken] COS-11D. If you keep those capsules clean, they won't lose some of their high-end frequencies. On the Sanken side, also, the CS-3e for a longer reach. It's kind of like a laser, though. When you're doing wide shots, if you can't get a boom in, you can definitely have a long-reach shotgun like [the CS-3e] that will do the job and it'll give the perspective, too. So, I like having that in the kit. I also enjoy having the [Sennheiser] MKH-50 and the MKH 416; usually a pair of each of those. And I like to use the 833 [portable mixer/recorder] from Sound Devices.



Clark: I standardized things around two years ago. [Toronto Sound] has four location sound recording packages, and every single one of them has the same units. So, it's: Sound Devices 688 [mixer/recorder], Lectrosonics SRC [receivers] with Lectrosonics

SMDWB [transmitters] and DPA 4060 lavalier microphones. Our boom is DPA 4017 [shotgun microphone] and then we have an MKH 50 from Sennheiser for those really tight, close-up shots to get a nice super-cardioid look off of it. I think in general, those are key pieces of my package.



Pullmer: My package doesn't change too much between jobs. I use a Sound Devices 633, a Sound Devices MixPre-6 for my lightweight documentary bag, Lectrosonics wireless, Tentacle sync for timecode, camera hops, and then you've got your shotgun and super-cardioid boom mics, which for me is a DPA 4017B and Sennheiser MKH 50. My kit is pretty modular as I work on everything from run-and-gun documentaries to cart-based commercials. When I'm working out of a cart I'll add a few items like an antenna distro, diversity fin, and Comteks depending on how many are required. I've worked towards streamlining it as much as possible so I'm not overhauling everything from job to job.



Sands: I'm more of a studio guy, so I have a cart. And then there's a lot of people running who are bag mixers. I'm not going to comment on the bag mixing route, because it's kind of a different world, and I admire the heck out of those guys, man. Those people running around doing these reality shows like *Amazing Race* and that, and they got 10 radios and a 10-track mixer and all that! That's a young man's game...

Today – again, back to my thing about getting the best gear you can get your hands on – I run a Sonosax mixer. They're handmade in Switzerland and they're amazing. I've worked in studios with Neotek Élite and Neve boards and stuff like that, but this thing is a little 8 x 2 mixer and the preamps and the headroom on it are just stellar.

Back in the day, there was Nagra [recorders] and there was a package and that's what you got – Neumann mics, Nagra, and whatever the mixer was. Now, there's a lot of companies, like Zaxcom has come out, Cantar has been around for years, and even Nagra has come back with some stuff. So again, I just say to people to buy the best possible gear you get your hands on.

There's a lot of different opinions about microphones and a lot of different manufacturers. There are now cheaper recorders, like the Zoom F8, so entry level folks can get in with some pretty decent sound. You can go out and drop \$28,000 on a recorder or you can drop \$5,000. You can buy microphones worth \$300 or \$4000, or you can get them for \$1,800. There are no absolutes.



Sewell: My audio package stays fairly consistent from shoot to shoot... I do sometimes find myself rebuilding the bag for more lightweight gigs or in a cart-style workflow when a boom operator is present. Some key components for smaller shoots, such as single interviews, could be as simple as a Sound Devices recorder, some Lectrosonics wireless, and a trusty Schoeps microphone at the end of my boom pole. With some larger-scale productions, like reality shows I work on, it's not unusual for us to have 30-plus cast mic'd every day. The sound department is larger on these types of shows, with additional mixers and assistants on the team. There can be multiple scenes shooting simultaneously, and certain cast members may drift from scene to scene. We have to match our recorder specs, manage frequency coordination, and always stay in constant communication throughout a workday.

So, to put the gear simply, each bag is equipped with Sound Devices 688s; five Lectrosonics SRC dual receivers; the ever-durable Sanken COS-11Ds for lavs; and RF Venue diversity fins mounted on Orca bags with telescoping poles to maximize our range. With the amount of camera coverage for these types of shoots, we don't normally get the booms out much besides interviews and difficult scenes where a lav just won't cut it.

Michael Raine is the Editor-in-Chief of Professional Sound.



To listen to our full chat with Kevin Sands, including more great stories and advice from throughout his accomplished career, listen to the Jan. 20, 2022 episode of the *Professional Sound Podcast*.

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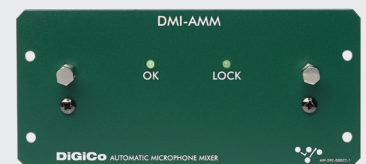
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PRODUCTS

Neumann KK 14 Capsule & Miniature Clip Mic System

Neumann has introduced its first product range designed especially for close miking instruments, which includes the new Miniature Clip Mic System and the new KK 14 capsule.

Neumann says the KK 14 capsule is able to capture the details of sound better than other capsules without any of the production tolerances that have been associated with electret solutions to date. The system's modular construction has been designed to ensure stability and long service life for live and stage performances. The system includes nine mounting solutions that make it possible to find the optimum positioning for acoustics while simultaneously protecting the instrument.

With minimized self-noise and an extremely high maximum sound level of 152dB, the KK 14 capsule delivers ideal results for both very quiet and very loud instruments, according to the company. In addition, the Miniature Clip Mic System is modular and rugged. Neumann assembles the KK 14 capsules by hand and encapsulates them in a titanium housing. The capsule can be easily unscrewed from the gooseneck connector. All the other components are also easy to replace.

For more information, contact Sennheiser Canada: 514-426-3013, info@sennheiser.ca, www.sennheiser.ca.



SSL BiG SiX SuperAnalogue Desktop Console

Solid State Logic (SSL) has launched its latest desktop mixing console, the BiG SiX SuperAnalogue mixer with USB interface, featuring comprehensive AD/DA conversion, advanced monitoring and routing, enhanced SSL EQ, and more.

Based on the SSL SiX desktop mixer and incorporating feedback from artists, producers, and engineers to create the next step in SSL hybrid production, the BiG SiX is a 16-channel studio-grade mixing console that combines features and technologies from famed large-format SSL consoles with full USB integration, additional processing, and advanced routing capabilities.

The console's SuperAnalogue design delivers the punch, clarity, and ultra-low distortion of the company's 9000 Series consoles, along with a new 16-channel AD/DA USB interface. Also included is an 'Essential Version' of the SSL G-Comp Bus Compressor, now with the 'Auto' release feature, channel dynamics processing, and a three-band EQ based on the SSL 4000E console. Producers and mix engineers will appreciate BiG SiX's comprehensive monitoring section featuring full source matrix feeding two independent headphone outputs, along with its 18-channel analog summing at mixdown capability.

For more information, contact SSL: 212-315-1111, nysales@solidstatellogic.com, www.solidstatellogic.com.

LiquidSonics Lustrous Plates Surround Plug-In

LiquidSonics has introduced its latest reverb plug-in, Lustrous Plates Surround, which offers the distinct character of a classic plate reverb with full Atmos compatibility.

Lustrous Plates Surround is a contemporary plate reverb with 10 distinctive models for use in surround and Atmos mixes up to 7.1.6. It features a fully-decorrelated multi-channel plate reverberation algorithm that meets the demands of the modern surround and Atmos music mixer. The reverb excels at phase-artifact-free fold-down, essential when mixing or remixing for home and headphones-focused Atmos delivery formats. It is ideal whether bringing older tracks featuring plate reverbs into Atmos or working on original surround pieces calling for the distinctive sound of plate reverberation.

The surround edition has all the features of the stereo edition including the even diffusion and spectral decay of 10 real hardware plates, while bringing many new enhancements and features specifically to meet the needs of surround production workflows.

For more information, go to www.liquidsonics.com.





CODA LINUS12C Amplifier

CODA Audio has introduced the LINUS12C amplifier.

The LINUS12C utilizes technology contained within CODA's LINUS14 to match that flagship model's distortion-free reliability and power. By virtue of its factory presets for all appropriate CODA systems, the LINUS 12C offers a flexible solution for touring, permanent installation, corporate AV, and portable applications.

The LINUS12C is a four-channel DSP, networkable amplifier that delivers 4 x 3,000W of clean power in a lightweight 19-in., 2U package. Its class D-IC output stage topology delivers audiophile sonic accuracy with lots of headroom providing significant system performance improvements in dynamics and transparency. Linus Core, its SHARC floating-point DSP processor, ensures improved processing power enabling the integration of sophisticated audio algorithms. The advanced signal processing includes IIR and phase-linear DS-FIR filters for linearity and high-end sound performance, as well as advanced lookahead and frequency dependent limiters for increased system headroom and sonic fidelity under heavy use conditions.

For more information, contact SC Media Canada: 888-595-3966, information@scmediacanada.com, www.scmediacanada.com.

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PRODUCTS



Sommer SC-Elephant Robust SPM 440 DMX Speaker/Subwoofer DMX Combo Cable

Sommer Cable has introduced the new SC-Elephant Robust SPM 440 DMX, a combination speaker and DMX cable for the simultaneous connection of subwoofers with integrated sensors at live events for the associated rental industry.

The advent of Sensor Control Subwoofer Technology has enabled a new step towards a complete and coherent loudspeaker setup. The latter offers an extended low-frequency range with a flat frequency and phase response for robust music reproduction with improved precision and definition.

The SC-Elephant Robust DMX customized combo cable features a compact diameter of 19.5 mm. Enclosed in the stranding compound of the 4 x 4 mm (AWG11) speaker cable are two full-featured DMX cables, insulated and shielded, with a wire cross-section of each 2 x 0.22 mm (AWG24). These integrated 110-ohm control lines now allow for sensor-control subwoofer systems without the need for laying extra cables. As an added convenience, the control line may also be used as an ordinary microphone cable or for tie lines.

For more information, Sonotechnique: contact 514-332-6868, sales@sonotechnique.ca, www.sonotechnique.ca.



Audio-Technica BP898 & BP899 Lavalier Microphones

Audio-Technica has introduced the low-profile BP898 subminiature cardioid condenser and BP899 subminiature omnidirectional condenser lavalier microphones. Direct replacements and upgrades to the existing AT898 and AT899, the BP898 and BP899 are available in a number of different terminations (for wired or wireless use) that suit them to the entire range of lavalier mic applications.

The BP898 is available in five black-finished models, all with permanently-attached cables and varying termination and power configurations. The BP899 is available in 17 different models, all with permanently-attached cables, varying termination and power configurations, with most available in two available sensitivities and black or theatre beige finishes.

Both microphones' wide dynamic range and tolerance for high sound pressure levels ensures intelligible, natural-sounding audio that's ideal for use by stage and television talent, lecturers, and worship leaders, and the low-profile design (5.3 mm in diameter) is ideal for applications requiring minimum visibility.

For more information, contact Audio-Technica Canada: 450-506-0245, info@audio-technica.ca, www.audio-technica.ca.



FabFilter Volcano 3 Filter Plug-In

FabFilter has released the Volcano 3 filter plug-in. It sees the introduction of a reimagined interface, new vintage-style filter shapes, per-filter saturation control, full visualization of modulation sources and targets, and more.

The new filter display speeds up workflow with the selection of multiple filters at once, and presents a unified response curve with stereo separation, as well as a high-resolution spectrum display. Modulation signals are now visualized at both sources and targets with animated collars, while the source flow area gives an overview of all active modulations, and floating slot panels enable collective balancing of all sources modulating the currently-selected control.

The heart of Volcano is its bank of four analog-modeled filters. Expanding on the already-established High-, Low-, and Band-Pass types, Volcano 3 more than doubles the options with the addition of vintage-style Bell, High/Low Shelf, Notch, and All-Pass modes. Like the original trio, these are all highly non-linear for a palpably analog sound, and can be switched through an array of sonic colourations using Volcano's Style settings. Each filter also now incorporates its own variable saturation circuit, further increasing the character-shaping potential, along with a 6dB/octave slope option, while independent volume and pan controls bring added depth to parallel routing setups.

For more information, contact Music Marketing: 416-789-7100, cindy@musicmarketing.ca, www.musicmarketing.ca.



Waves Retro Fi Plug-In

Waves Audio has released the Retro Fi, a lo-fi effects chain plug-in.

The company says Retro Fi provides the tools needed to produce authentic lo-fi textures, warm analog sounds, and nostalgic vibes, like vintage cassette tones and deep vinyl grooves. This plug-in includes a large palette of lo-fi noises, spaces, devices, and textures. Retro Fi offers four modules/sections that can be combined, each with its own flavours.

Device is a complete analog colouring and tonal shaping engine, armed with newly-designed impulse responses, an era-specific Styler for retro tones, a squasher, a colourful compressor, and more. Space adds saturated echo and analog reverb (spring/plate) for colourful depth and spatial sounds. Noise boasts a library of over 60 unique textures, including diverse cassette and vinyl noises, among others. Mechanics delivers the imperfections and mechanical wear and tear of old cassette tapes and vinyl records. This section has two independent modulation engines, each with its own adjustable wow, wobble, and speed. Users can also flip through 250 artist presets, curated by top producers and beatmakers in hip-hop, electronic genres, rock, and beyond.

For more information, contact Waves: 865-909-9200, info@waves.com, www.waves.com.



MUTEK REF10 SE120 Upgrade Master Clock Upgrade

In the name of sustainability and lasting value, MUTEK is now offering the possibility of upgrading the REF10 reference master clock to the enhanced level of the REF10 SE120.

Released in 2020, the special edition of the REF10 marks the company's top-of-the-line master clock. Both models are based on the same technical foundation. That's why a REF10 can be transformed into the REF10 SE120 by replacing the standard oscillator with the more elaborately manufactured, hand-selected SE120 oscillator. Additional testing and calibrations are carried out so that the customer receives their REF10 back as a unit converted into a fully-fledged REF10 SE120.

MUTEK says the upgrade towards the REF10 SE 120 offers a noticeable positive effect on the sound quality of connected audio devices. Aspects such as resolution, spatiality, coherence, and realism are enhanced considerably, while the acoustic stage becomes wider and the sonic depth of the instruments more concise.

For more information, contact MUTEK: contact@mutec-net.com, www.mutec-net.com.

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PRODUCTS

Focal Alpha 80 Evo & Alpha Twin Evo Monitors & Sub One

Focal Professional is now shipping three new studio products, the Alpha 80 Evo and Alpha Twin Evo powered monitors, and the Sub One subwoofer. With these new additions, the company completes its Alpha Evo line that was launched in 2021 with the Alpha 50 Evo and Alpha 65 Evo monitors.

The company says the Alpha Evo line and Sub One are an affordable and ideal solution for musicians, composers, and engineers who are looking for high volume and rich low-frequency extension. The Alpha Evo monitors feature the new Slatefiber cone — made by Focal in France from recycled carbon-fibre — laminar ports, and technical reliability. The Alpha 80 Evo and Alpha Twin Evo boast a new 1/4-in. TRS jack input and a user disengageable automatic standby power mode. The Alpha 80 Evo features inserts for wall and ceiling mounting. The fully-analog monitors are equipped with two class D amplifiers whose high-current capacity allows full control of signal dynamics. The amplifiers also offer high volumes without distortion.

With its 200W (RMS) amp, the Sub One is designed for improved precision and extremely low distortion. It pairs with the monitor models from both the Alpha Evo and Shape powered monitor lines for a 2.1 system, and any multi-monitor immersive sound setup. For the Sub One's speaker drivers, there are double-skinned Slatefiber cones. The two aligned cones offer enhanced rigidity and the Sub One is easily positioned thanks to its front-firing ports.

For more information, contact Focal Naim Canada: 866-271-5689, ordersca@focal-naim.com, www.focalnaimamerica.com.



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Røde Lavalier II Microphone

Røde has added the Lavalier II to its range of compact wearable microphones. It's a high-end lavalier microphone designed for demanding audio and video applications. Boasting a unique low-profile design, improved sound quality, and professional features, it's suitable for broadcast applications and filmmaking and all kinds of content creation.

The Lavalier II features a new low-profile design that uses unique capsule technology and form factor, which allows the mic to sit flush against clothing and other mounting surfaces. This makes it more discreet, giving users freedom and versatility when miking up themselves or talent. It also features a new mounting clip that is ultra-compact, and a flat cable that is neat and unobtrusive, making threading it through clothing easier.

The Lavalier II delivers broadcast-grade sound suitable for a range of recording applications. It has a very flat frequency response and will capture rich, detailed audio with very low noise, according to the company. Its omnidirectional polar pattern picks up clear sound from all directions, meaning the Lavalier II is forgiving when it comes to placement.

For more information, contact Audio Distributors International: 450-449-8177, info@adipro.ca, www.adipro.ca.



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NOAH MINTZ

PRODUCTS

Fulcrum DF4 Dual High-Frequency Horn Loudspeaker

Fulcrum Acoustic has released the DF4 dual high-frequency horn, a spot fill loudspeaker aimed at supplemental high frequency coverage for areas shaded by obstructions.

The dual 4-in. diaphragm high-frequency compression drivers are capable of delivering very high output for long-throw applications. Fulcrum says its proprietary TQ processing improves the sonic character, guaranteeing high-end clarity and precise transient response even at very high SPL. This high output, high fidelity spot fill loudspeaker is currently available in two models; the DF443 (45 x 30 degrees) and the DF463 (60 x 30 degrees).

For more information, contact SFM: 514-780-2070, info@sfm.ca, www.sfm.ca.



TASCAM Portacapture X8 Adaptive Multi-Recorder

TASCAM has introduced the Portacapture X8 high-resolution adaptive multi-recorder. It features 192kHz/32-bit float point recording technology, a 3.5-in. colour touchscreen display, large-format internal detachable mics to accommodate a variety of recording applications, six setup modes each with instant optimized settings, internal eight-track recording, and more.

The Portacapture X8 uses an app-like set of configurations that optimize the unit for various recording tasks, including multitrack recording, voice capture for interviews, podcasts, music recording, field recording, and ASMR (Autonomous Sensory Meridian Response) for capturing those unusual/sensory-related sounds. Combined with the recorder's intuitive Launcher system and the incorporated touch panel display, the Portacapture X8 is designed to allow users to focus on the recording without having to struggle with complicated settings.

The Portacapture X8 comes with two large 14.6mm diameter built-in condenser microphones. With the TASCAM-developed HDDA mic preamps, these microphones are well-suited for high quality audio recording. For easy setting of the available A-B and X-Y microphone patterns, the Portacapture X8 offers a detachable mechanism for configuration.

For more information, contact Erikson Audio: 514-457-2555, info@eriksonaudio.com, www.eriksonaudio.com.



Royer Labs dBooster2 2-Channel Signal Booster & DI

Royer Labs has introduced its second generation in-line signal booster, the dBooster2. In addition to being a phantom powered signal booster and impedance buffer for both ribbon and dynamic microphones, the second generation dBooster2 offers independent two-channel functionality and doubles as a DI to accommodate signal levels for electric guitar, bass, and other unbalanced guitar level sources.

With both channels having the ability to serve as an in-line signal booster, a DI, or one channel of each, the dBooster2 works well for miking low-volume sound sources, recording direct to a DAW interface, interfacing with long cable runs to maintain audio quality, or as a DI.

When used as a signal booster, both channels of the dBooster2 increase the level of passive low-output ribbon and dynamic microphones with minimum distortion or colouration. Created for professional applications, the dBooster2's input stages are designed like the front end of a high-end microphone preamplifier. When used as a DI for unbalanced guitar level sources, the dBooster2 provides either 0dB or 8dB of gain, selectable from the front panel switch. The single-ended high-impedance (230K-Ohm) DI input maintains headroom and gain regardless of load, with minimal distortion or colouration.

For more information, contact YSL Pro: 416-867-9000, yslpro@yorkville.com, www.yslpro.com.





Roland UVC-02 Web Presentation Dock & CGM-30 Gooseneck Microphone

Roland has released the UVC-02 web presentation dock and CGM-30 gooseneck microphone for the web conferencing applications.

The compact UVC-02 is a desktop control hub that allows the user to connect a high-quality HDMI camera, pro microphone, and other audio sources and send them directly to computer-based meeting and streaming platforms via one USB cable. It also includes a panel full of hands-on knobs and switches, providing quick hardware control of levels, audio and video muting, sound effects, and more.

The CGM-30 gooseneck microphone plugs directly into the XLR input on the UVC-02 dock, providing a high-quality desktop solution that eliminates the need for an external mic and stand. It also works with the Roland VR-1HD AV streaming mixer and any other product with a phantom-powered XLR microphone input on the top panel.

For more information, contact Roland Pro AV Canada: 604-270-6626, rcm.proav.info@roland.com, proav.roland.com



Rupert Neve Designs 5025 Dual Shelford Mic Pre

Rupert Neve Designs has introduced the 5025 Dual Shelford Mic Pre, a limited-edition two-channel microphone preamplifier based on its Shelford Channel.

The Dual Shelford Mic Pre utilizes custom step-up transformers on the microphone inputs, which provide the first 15dB of gain. The Dual Shelford Mic Pre also features 72dB of low-noise class-A gain, a sweepable high-pass filter, the company's Silk Red and Blue circuit for two flavours of customizable harmonic saturation, and the dual output level transformers originally developed for the Shelford Channel. The -6dB output from these custom transformers allows the engineer to hit the "sweet spot" of the output stage more easily, adding rich harmonic character without clipping the next device in the chain.

For more information, contact YSL Pro: 416-867-9000, yslpro@yorkville.com, www.yslpro.com.

Professional
sound



www.professional-sound.com

PRODUCTS

Xilica Sonia Ceiling Speaker System

Xilica has launched the Sonia range of networked amplifiers and ceiling speakers for IT-friendly collaboration spaces.

The Xilica Sonia series modernizes installed audio systems for the networked architectures common in today's meeting and learning spaces. The initial Sonia series includes the Sonia C5, a compact 5.25-in. in-ceiling speaker with a wide, even dispersion pattern that enables fewer speakers in large spaces, such as classrooms and legislative chambers.

Sonia C5 is powered by Xilica's new Sonia Amp, a PoE+-enabled amplifier with an integrated network switch that can power up to eight Sonia C5 speakers in daisy-chain. With four individual channels, one Sonia Amp can also power Sonia C5 speakers across four neighbouring meeting rooms, creating additional cost savings and deployment simplicity.

The Sonia Series follows the IT-friendly design that began with Xilica's Solaro DSPs and the recently-introduced family of Gio networked endpoints. Sonia Amp's integrated network switch features a PoE port suitable for serving both power and Dante networked audio to a ceiling-mounted microphone array, such as the Sennheiser TeamConnect Ceiling 2, which creates a single CatX drop to the ceiling for a full room audio system. Additionally, standard Category cable connectivity between Sonia Amp and Sonia C5 eliminates the need for traditional, polarized speaker wire, power calculations, and proprietary installation practices by IT technicians.

For more information, contact Techni+Contact Canada: 514-695-4883, info@technicontact.com, www.technicontact.com.



Lectrosonics Silicone Covers for Transmitters, Receivers & Recorders

Lectrosonics has released new silicone covers for protection of a wide variety of its transmitters, receivers, and recorders, including the DCHT digital camera hop, DPR, DPR-A digital plug-on, and LT transmitters, as well as the DCHR digital portable, IFBR1B multi-frequency IFB, and M2R IEM/IFB receivers. The silicone covers for the recorders include the MTCR miniature timecode and PDR portable digital recorders. The new silicone covers join the HM/HMa plug-on and SSM micro belt-pack transmitter covers already available.

All of the new Lectrosonics covers are available in clear silicone, while some models are also available in black, including the DPR, DPR-A, and HM/HMa. These tough silicone covers are designed to protect the units from moisture and dust, and the two-part, overlapping design makes them pliable enough for easy installation and removal. Each cover features die-cut holes for antennas and input jacks, which suit the individual model.

The clear, transparent covers feature a raised dome design over LCD screens and buttons, making them easy to view and buttons easy to operate while in the clear casing. The matte black covers are designed to be set up beforehand, and then become less visible on camera.

For more information, contact Lectrosonics Canada: 416-596-2202, colinb@lectrosonics.com, www.lectrosonics.com.



Shure MV7X Vocal Microphone

Shure has introduced the SM7B-inspired MV7X microphone for podcasters, broadcasters, and vocalists.

The MV7X is a dynamic XLR microphone that is compatible with all audio interfaces without the need to add an in-line preamp for additional gain. It is ideal for close mic applications that require vocal intelligibility with a balanced tone. Voice Isolation Technology ensures the microphone is very focused on the user's voice and does not capture unwanted background noise, which makes it especially useful in imperfect rooms. The XLR output allows use across a wide range of digital and analog recording situations, and the optimized frequency response provides rich and natural vocal reproduction, the company says. The durable all-metal design features an adjustable yoke that can be mounted onto a variety of microphone stands for flexible placement options.

For more information, contact SFM: 514-780-2070, info@sfm.ca, www.sfm.ca.



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7	SHURE (SFM)	www.sfm.ca	info@sfm.ca
25	SHURE (SFM)	www.shure.com/ecosystem	info@sfm.ca
47	STEWART AUDIO (TECHNI+CONTACT)	www.techniccontact.com	info@techniccontact.com
45	UNIVERSAL AUDIO (YSL PRO)	www.yslpro.com	yslpro@yorkville.com

To view the digital version of *Professional Sound*, please go to www.professional-sound.com/online.



PRODUCTS

Meyer Sound Panther Line Array Loudspeaker

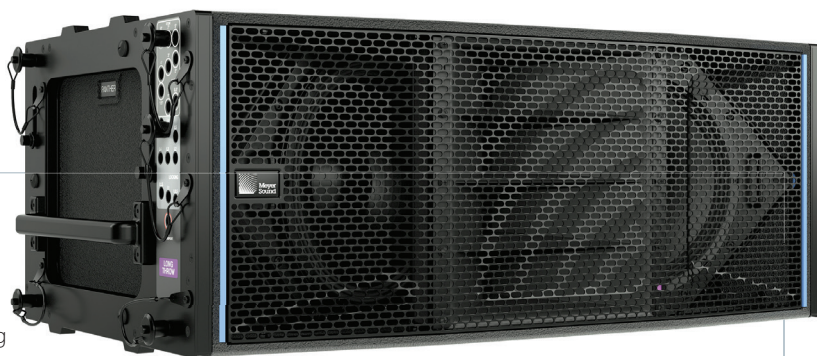
Meyer Sound has announced Panther, a new flagship linear line array loudspeaker engineered for large-scale touring and installed systems.

The Panther's acoustic output is closer to the larger and heavier Leo line array loudspeaker and occupies the slender form factor of the existing Lyon line array loudspeaker. The Panther weighs 150 lb and a dual analog/Milan AVB network input module offers flexible signal distribution options and each cabinet comes standard with an IP55 weather protection rating. It also comes at a substantially lower initial cost compared to Leo and Lyon, according to the company.

The Panther's new, four-channel Class D amplifier is coupled to a power supply with advanced power factor correction and higher voltage rails. Panther also features new, longer-excursion 12-in. low-frequency cone drivers and new 3-in. compression drivers, delivering higher flux density despite the lower weight. Combined with a new LF port design, the Panther has a maximum peak output of more than 150dB SPL.

The Panther family consists of three cabinets with different horizontal coverage patterns. Panther-M and Panther-W are 95 and 110 degrees, respectively; Panther-L features an all-new long-throw horn with a tightly defined 80-degree horizontal pattern.

For more information, contact GerrAudio Distribution: 613-342-6999, sales@gerr.com, www.gerr.com.



Nugen Audio Paragon ST Mono/Stereo Convolution Reverb Plug-In

Nugen Audio has released its latest reverb plug-in, Paragon ST – a mono/stereo-only version of its convolution reverb software.

Ideal for music production applications, Paragon ST allows producers to sculpt and fine-tune their reverb to the needs of the track, at a lower price point. In conjunction with the new release, Nugen has unveiled music-focused features that will be included in Paragon ST, as well as the surround version of Paragon. Included among

these updates are controls for stereo width, modulation, and mic distance, along with a pre-delay tempo lock.

Like its predecessor, the Paragon ST offers the realism of authentic Impulse Responses (IR) alongside the tweakability of a classic algorithmic reverb. Additionally, Paragon and Paragon ST feature spectral analysis and precise IR EQ, and zero time-stretching, which means no artifacts. Further, both reverbs provide unique technology for re-synthesis of authentic IRs and HPF and LPF per channel.

For more information, contact Music Marketing: 416-789-7100, cindy@musicmarketing.ca, www.musicmarketing.ca.

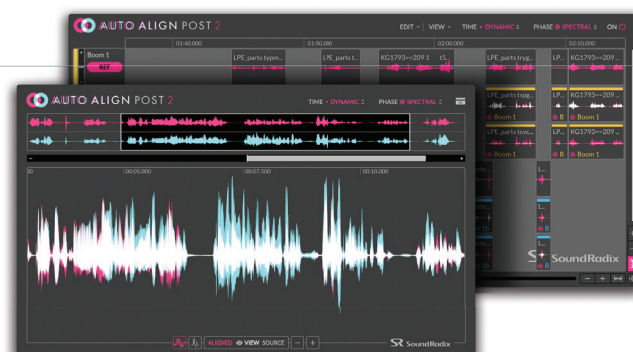
Sound Radix Auto-Align Post 2 Plug-In

Sound Radix has released Auto-Align Post 2, an upgrade to the Emmy-winning Auto-Align Post plug-in.

Auto-Align Post has become a common tool for film and amongst editors. By enabling dynamic time-alignment correction of moving location microphones, it makes it possible to effectively mix the boom and lav microphones by eliminating comb-filtering and phase artifacts caused by the time-of-arrival differences, with just a few clicks. Auto-Align Post 2 takes it a step further by introducing a new Spectral Phase correction module, bringing further improved algorithms and UI, adding ARA2 support for compatible DAWs such as Nuendo, Studio One, and more.

Other features in Auto-Align Post 2 include: microphone time-alignment of up to ± 100 ms or distances of up to 112 ft.; Spectral Phase Correction Module for correcting phase-shift caused by electronic and acoustic filters; a Dynamic mode that enables continuous phase/time correction for moving actors or cameras; Static mode enables fixed phase/time correction for stationary microphones; and the plug-in is optimized for CPU efficiency and operation speed. It is also designed to be easy to operate, with no manual adjustments required.

For more information, go to www.soundradix.com.



EAW AC6 ADAPTive Column Speaker

Eastern Acoustic Works (EAW) has added to its ADAPTive line with the AC6 two-way full range column.

Capable of generating a max SPL of 143db and 120 degrees of horizontal nominal beamwidth, the AC6 is targeted at installations, houses of worship, and small performing arts centres. Although slightly smaller than its predecessors, the AC6 includes just as many features. Managed via EAW's Resolution 2 software, the AC6 can compensate for coverage and directivity with its Adaptive Performance technology. By integrating all factors and aspects of the loudspeaker, the AC6 can produce three-dimensional coverage in any venue, making it useful in acoustically-challenging rooms.

The AC6 is also equipped with EAW's Focusing and DynO digital signal processing. This means that at any volume, the column speaker provides clear and dynamic sound with an accurate impulse response, according to the company. Utilizing six low-frequency transducers and 30 high-frequency transducers, the AC6 can produce studio-quality audio from 20kHz down to 65Hz at any volume.

For more information, contact SFM: 514-780-2070, info@sfm.ca, www.sfm.ca.



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IS PRO AUDIO COMING HOME?

By Brad Price

The pandemic has changed many assumptions beyond recognition. With social gathering strictly limited, the effect on live collaboration of any sort has been profound. The reaction has been a combination of understandable frustration and rapid innovation, as people work to remain creative and operational under new conditions. Nowhere is that truer than in music production.

As with many businesses, the restrictions have meant doing more at home and more with remote tools. In the case of professional audio, this has meant a boom in home studios and recording, accelerating a trend that was underway long before current conditions. It has also seen the owners of professional recording studios expanding their offerings in ways that allow musicians to safely create projects while benefiting from the knowledge and experience that only a great studio and a great engineer can provide.

For performers, the frustration has been acute as virtually all live venues have been closed. Similar to the rise of home recording, musicians have responded by working hard to deliver their work online using a combination of home recording tools, external services, and internet expertise. Maintaining safe distances has led to many creative solutions from players who need to hear one another in real time with minimal latency in order to do what they do.

For integrators, these changes have meant an opportunity to help engineers and creatives do all this work together. Older ways of system-building are centered around short distances and leave internet streaming as an afterthought. The useful systems of today are digital natives that can span large distances and channel counts, and that integrate directly into computers for processing, editing, and real-time distribution. The useful systems of today are built around AV networking.

For the musician

For non-soloist musicians, the isolation has been difficult as it makes even casual rehearsals nearly impossible. But with a small amount of home studio gear and physical space, some musicians have managed to make music with friends again.

For collaborating musicians, time is key. If one is playing while listening to others over headphones, the latency between hitting a note and hearing it is critical and must be kept quite low – less than 10 milliseconds in most cases.

The recording/playback system must be capable of maintaining this low latency along with great fidelity over substantial distances.

Audio networking greatly helps here, by allowing distances of up to 300 ft. to be covered with inexpensive, lightweight Ethernet cabling that carries hundreds of channels of low-latency audio. This means people can move into different spaces and simply move the microphones and headphone amps they need with them – just plug into a network switch and they are ready to play.

For the engineer

The work that good engineers do is not lost on musicians. Audio engineers can help any artist to sound better with judicious use of microphone placement, microphone choice, equalization, and compression, to name a few.

The move towards home audio networks allows audio engineers to deliver their craft to wherever the musicians are, and to bring their own gear if they choose. Once a home studio is outfitted with audio networking, it becomes trivially easy for engineers to incorporate their own mixers, microphones, preamps and processors. No need to run special cables or snakes because a single Ethernet connection gets it done.

For the integrator

Any integrator who is installing a home or studio system today should be fully aware of the benefits of networking. In addition to providing a seamless, noise-free experience for end-users, networks are far easier to install. No more proprietary cables. No more snakes. No more tape labels covering everything just so you don't lose it. Ethernet systems are fast and easy to deploy and can serve customer needs for long periods of time.

An example: The Farm Studios in B.C.

A great example of a modern recording studio adapting to current needs can be found on the Sunshine Coast of British Columbia at Garth Richardson's The Farm Studios. Richardson has worked with some of the truly big names in modern music and has adapted his studio for modern times.

The seven-acre property features several cabins and a main house where the control room is located. Rooms in the main house are connected throughout with a Dante audio network, and Richardson is now extending the network out to another large cabin adjacent to the main house



and other locations.

Audinate's Dante is the de facto standard for digital audio networking, and distributes hundreds of uncompressed, multi-channel digital audio channels via standard Ethernet networks, with near-zero latency and perfect synchronization. Dante allows audio, control, and all other data to coexist effectively on the same network.

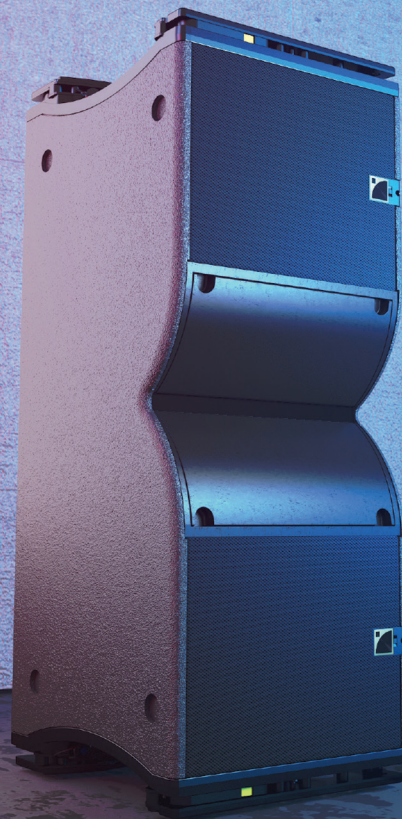
"I want to make it so that anyone can record from anywhere. If a vocalist wants to sing alone from the band house, I can just plug a mic preamp into that network jack, and we're good to go. If they want to sing outdoors in the woods, we can do that too. The network makes it very easy to set up whatever we might need," says Richardson.

This is just one example of how audio networking can help ease the pain of musical separation, allowing musicians and engineers collaborate at least a little bit like they used to. (*Ed. Note: For an in-depth breakdown of Richardson's network, please read Professional Sound's latest feature on The Farm Studios in the April 2021 issue.*)

Audinate, the maker of Dante, provides an extensive and free online learning service to help engineers, musicians, and integrators understand how networking works and how they can use it for their own projects.

Brad Price is the Senior Product Marketing Manager at Audinate. To learn more about audio networking and receive free Dante training, go to www.audinate.com.

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ITINERARY

NOTE: The following events are still on the calendar as of press time, though may yet be affected by the ongoing COVID-19 pandemic.



PHOTO: MESSE FRANKFURT EXHIBITION, JOCHEN GUNTHER

PROLIGHT + SOUND

PLASA Focus Leeds 2022

Leeds, U.K.
May 10-11, 2022
+44-0-1323-524-132
info@plasafocus.com, www.plasaleeds.com

The Media Production & Technology Show

London, England
May 11-12, 2022
mps-marketing@mbi.london,
www.mediaproductionsshow.com

June

The 2022 NAMM Show

Anaheim, CA
June 3-5, 2022
760-438-8001
info@namm.org, www.namm.org

Canadian Music Week 2022

Toronto, ON
June 6-11, 2022
416-543-4749
conference@cmw.net, www.cmw.net

AES 2022 International Automotive Audio Conference

Detroit, MI
June 8-10, 2022
212-661-8528
www.aes.com



PHOTO: GETTY IMAGES FOR NAMM

NAMM SHOW

February

MEX Las Vegas DJ Show

Las Vegas, NV
February 21-24, 2022
905-730-7773
themobileentertainmentexpo@gmail.com,
www.mobileentertainmentexpo.com

March

USITT Conference & Stage Expo

Baltimore, MD
March 2-5, 2022
800-938-7488
info@usitt.org, www.usitt.org/conference22

April

CITT/ICTS Expo-Scene 2022

Montreal, QC
April 13-14, 2022
514-504-9997
mcorbeil@citt.org, www.citt.org

NAB Show 2022

Las Vegas, NV
April 23-27, 2022
301-682-7962
nab@nab.org, www.nabshow.com

Prolight + Sound 2022

Frankfurt, Germany
April 26-29, 2022
info@messefrankfurt.com,
www.prolight-sound.com

Musikmesse 2022

Frankfurt, Germany
April 29-May 1, 2022
info@messefrankfurt.com,
www.musik.messefrankfurt.com

May

AES Europe Spring 2022 Convention

The Hague, Netherlands & Online
May 7-8 (in-person) & May 16-19, 2022 (online)
212-661-8528
www.aes.org

Juno Week & Awards 2022

Toronto, ON
May 9-15, 2022
416-485-3135, FAX 416-485-4978
info@carasonline.ca, www.junoawards.ca

July

InfoComm China

Beijing, China
July 13-15, 2022
www.infocomm-china.com/en

August

CITT/ICTS Rendez-vous 2022

Calgary, AB
August 11-13, 2022
888-271-3383
mcorbeil@citt.org, www.citt.org

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EMPLOYMENT

Massey Hall / Roy Thomson Hall

Job: Event Coordinator

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About us

The Corporation of Massey Hall & Roy Thomson Hall, a charitable non-profit organization, owns and operates two of Canada's most iconic concert halls. Massey Hall has just completed the most extensive renovation in its history with a rejuvenated auditorium, enhanced amenities for artists and patrons, and will soon realize the addition of new performance venues as part of Allied Music Centre. Roy Thomson Hall serves as the home to the Toronto Symphony Orchestra, welcomes the Toronto International Film Festival's red-carpet gala premieres, and plays host to a dynamic array of cultural events throughout the year. The Corporation is actively engaged in Artist Development and Education & Community Outreach initiatives as an investment in the next generation of artists and audiences.

Summary

The Event Coordinator is responsible for providing the highest standards of professional event management services to rental clients and house/co-pro presentations.

Job Duties

- Advance show/event requirements with client/tour manager leading up to event date; conduct site tours and chair coordination meetings with clients and internal departments
- Maintain positive, open lines of communication with clients and internal departments; identify potential problems and negotiate solutions which meet the needs of all parties
- Oversee events on-site, acting as liaison between the client and internal

departments

- Perform artist liaison duties for house presentations, ensuring that artist requirements are advanced via tour manager or directly as required (i.e.: ground transport, accommodation, catering, payment, etc.)
- Troubleshoot problems and issues as they arise during events, making immediate decisions on courses of action to ensure the overall success of events
- Contract with third parties for externally provided items and/or services to meet event requirements within budget constraints
- Compile estimates of expenses for each event and provide revisions (with explanations) as event details change
- Collect deposits and insurance certificates from clients as required
- Keep internal departments informed of detailed event requirements through weekly calendar meetings and event coordination memos, and direct various department staffs accordingly on behalf of client
- Ensure that the Corporation's fire plan and health and safety policies are adhered to
- Identify potential problems and report to management, developing solutions wherever possible
- Prepare settlement package for each event within a four-day deadline post-event, or night-of-show as required, and release to Finance for implementation
- Create and maintain event files to ensure accurate historical records of events is available
- Direct event staff prior to and on event site on behalf of client to ensure smooth running event procedures
- Facilitate third party contracts for event services on behalf of client, with approval from Events Manager
- Ability to make last-minute leadership decisions on event site, maintaining hall's service standard and building rules and regulations, while maintaining client satisfaction

Requirements

- Certificate in program-hospitality or event planning
- 2-3 years' experience working within different venues within the industry
- Previous event coordination experience or experience working with corporate clients and promoters
- Demonstrated ability to deliver superior customer service
- Computer proficiency in Word, Excel, Teams, CRM, and Outlook
- Flexibility to work in different environments, evenings, and weekends as required
- Excellent communication, interpersonal, diplomacy, and influencing skills
- Strong problem solving, troubleshooting, and decision-making skills
- Good organizational skills with the ability to multi-task and work under pressure

The Corporation of Massey Hall and Roy Thomson Hall values diversity and is an equal opportunity employer. Applicants requiring accommodation at any stage of the recruitment process should contact the Human Resources Department. The Corporation is committed to providing employment accommodation in accordance with the Ontario Human Rights Code and the Accessibility for Ontarians with Disabilities Act.

Please submit your cover letter and resume to: careers@mh-rth.com.

We thank all applicants for their interest in this position. Please note that only applicants granted an interview will be acknowledged. No phone calls please.

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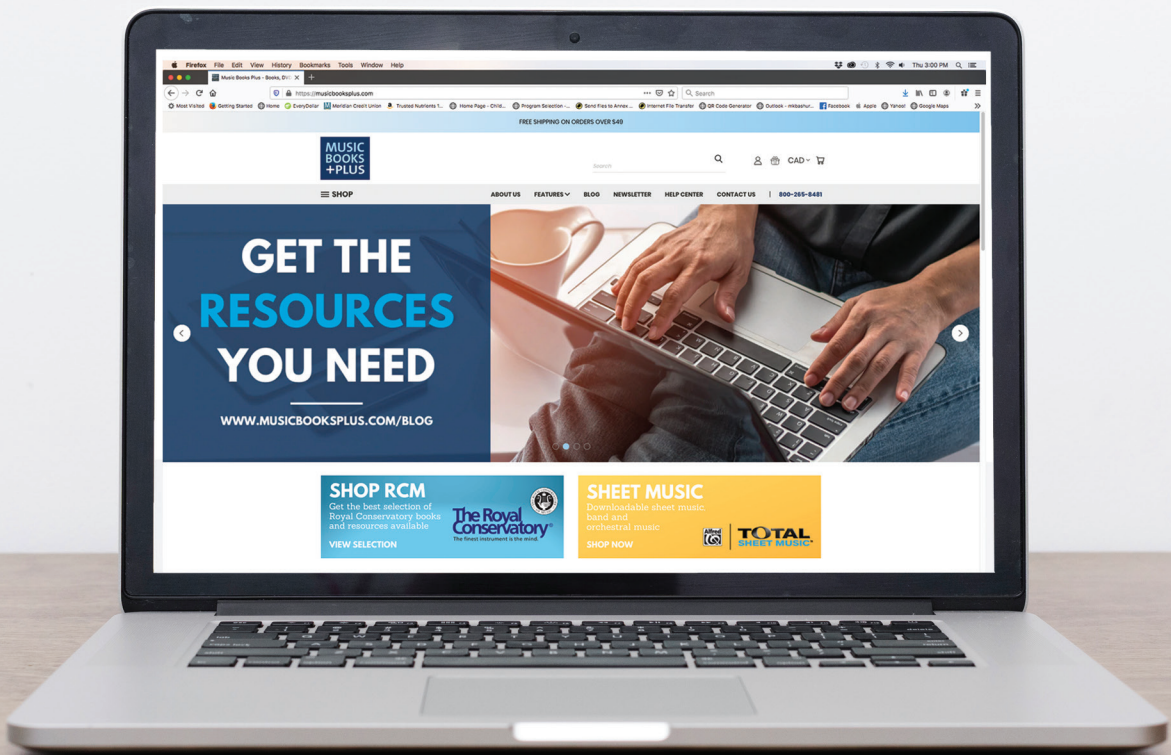
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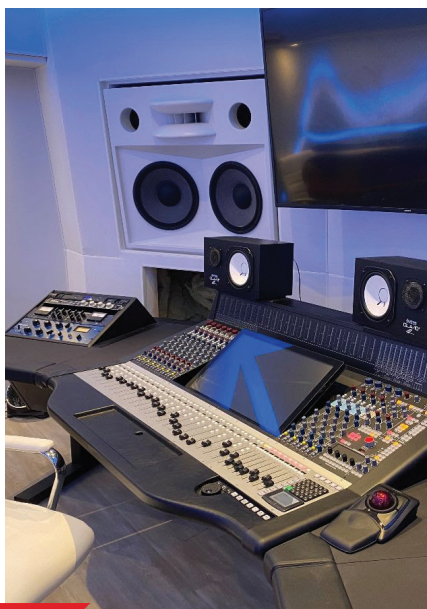
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PROJECT FILE



Multi-platinum music producer and songwriter Ronnie Jackson, better known as **Lil' Ronnie**, has made a **Neve** Genesys Black G16 console the centerpiece of a new five-studio facility he recently opened on 100,000 sq. ft. of land in Alpharetta, Atlanta: **Einnor Studios**.

The five audio studios are already up and running, but eventually the complex will also house rehearsal halls, post-production studios, edit suites, soundstages, and facilities for shooting video content for YouTube.

Lil' Ronnie chose a Genesys Black console for the main audio studio because he wanted a Neve as the facility's centerpiece. As the remaining four studios are equipped for in-the-box workflows, the Neve console – which was supplied and installed by pro audio specialist Vintage King – gives producers and artists access to a hybrid workflow.

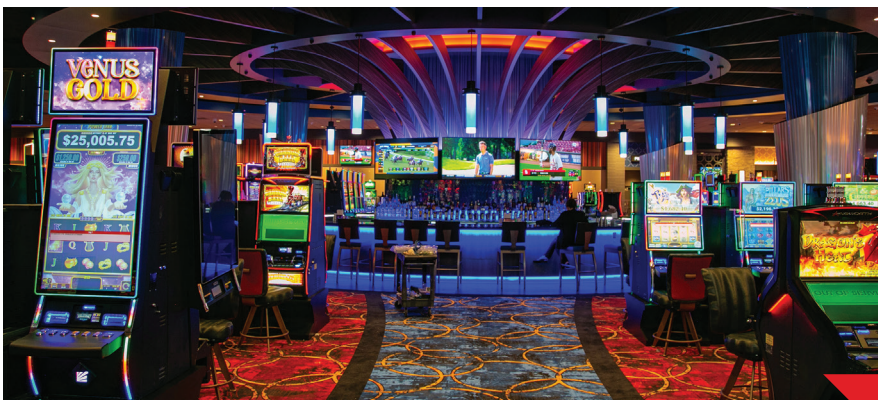
"I wanted a Neve desk because I love the iconic sound of Neve's analog equipment and have Neve 1073 preamps in all of my racks," Lil' Ronnie says. "I decided the Genesys Black was the ideal choice because it delivers the look and feel of a traditional analog console while also offering digital control and easy integration with DAWs, which suits people who like to work 'in the box.' It is the perfect hybrid console – the real new age deal – and it also has the advantage of a relatively small footprint so it doesn't feel overpowering in the studio space."



Before Cleveland Cavaliers basketball fans enter the over-19,000-seat **Rocket Mortgage Fieldhouse** in downtown, Cleveland, OH, many will have the opportunity of experiencing a special portal leading into the multi-purpose venue thanks to **Metropolitan Interactive's** (Oxford, CT) design and install of a **d&b audiotechnik** Soundscape system and some clever digital video content.

Michael Conley, SVP and chief information officer for the Cavaliers, had something very specific in mind for the Fieldhouse, which is also home to the Cleveland Monsters AHL hockey team and over 200 ticketed events annually. Working with Cavaliers designers, he wanted something spectacular entering the building portal – one tunnel that people would walk through before getting to the seating area; then, making their way through the atrium, fans would be exposed to what has been dubbed a 'power portal,' a seamless dvLED tunnel experience designed and implemented by **ANC LiveSync** and coupled with a state-of-the-art immersive sound system, d&b audiotechnik's Soundscape, all designed and installed by Met Interactive.

"Met Interactive came up with a layout for the portal very quickly," states project leader Richard Gold. "d&b Soundscape using the DS100 processor with En-Scene software was one of our earliest decisions and gave us the ability to move the sound around the space to be aligned with the video content. The system and speakers are hidden under LED sidewalls primarily. When the project team realized more speakers were required, we added speakers at ceiling height at either end of the portal."



The **Mint Gaming Hall** at Kentucky Downs in Franklin, KY, serves as a gaming mecca for the region. A 30,000-sq.-ft. expansion opened in 2020, once again outfitted with AV systems by integrator **TriStar Digital Connections**. Gamers can place their bets at 600 all-new historical horse-racing terminals or at themed slots, and the big winners are announced through the building's distributed sound system wirelessly, thanks to antenna and distribution systems from **RF Venue**, including the 4 ZONE active antenna combiner, and DISTRO4 and DISTRO9 Antenna Distribution Systems that manage 14 CX22 ceiling-mounted antennas.

"This was a case of RF Venue in both the original and the new parts of the same facility," says Robert Kilmarx, service manager at TriStar Digital Connections. "We designed and installed mirrored systems, using the same RF Venue components in both phases, so we have consistency throughout the structure."

Two DISTRO4 Antenna Distribution Systems are split between the first and second phases of the expanded Mint Gaming Hall, with six CX22 ceiling-mounted antennas installed in the first phase and eight more deployed for the second. These support three **Shure** QLX wireless microphone systems and comprehensively cover the entire facility. "Anytime anyone hits a big jackpot, they can have a microphone there in minutes to announce it," says Kilmarx. "There are never any dropouts; coverage is complete. The two sides of the hall have different ceiling heights, which could have caused some interference, but the RF Venue equipment is very forgiving. It got us around every challenge."

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