RIEDEL

:update

#022

RIEDEL RSP-1232HL

MAIN CALLS

SPECIALS

urity
BP Conf 4

PGM 1
Stadium 1

PGM 2
Stadium 2

04
New York

Cam 1
Justin

Cam 2
Debbie

Cam 3
Michael

The smartest
SMARTPANEL™
ever

The brand-new 1200 series SmartPanel RSP-1232HL (**H**ybrid **L**ever) opens new perspectives into the world of multifunctional user interfaces and represents the most powerful member of Riedel's SmartPanel family. The SmartPanel philosophy of common hardware that is software-defined through the use of apps enables users to buy just the functionality that they need and offers easy scalability when those needs increase.

Completely new from the ground up, the RSP-1232HL is Riedel's smartest SmartPanel yet! In addition to full-color touchscreens and support for multiple workflows, each of the 32 hybrid-lever keys features an innovative integrated rotary encoder that provides control over variable parameters in the same location as the key itself. The levers have been carefully designed to redefine the way a user interface should feel. Each key also has an LED ring the allows the easy grouping of keys based on colors. Key Banks, a new take on shift pages, are user-definable (name and color) layers of keys that are accessed by simply pressing the button on the screen.

High-resolution, sunlight-readable multi-touch screens provide an 8-character main label plus a 16-character sub-label. Users can choose the amount of information displayed. The interface also supports user-defined icons and icon-based signaling mechanisms to indicate the state of each key. The intuitive info display provides access to several other unique functions and helps the panel to support multiple workflows.

Connectivity includes traditional AES3 on coax and RJ45 as well as AES67 via two fiber SFPs and two RJ45 connections. With these options, the user can use a variety of daisy-chaining and redundancy options to realize extraordinary cabling flexibility.

Rounding off the list of features are stereo, phase-coherent speakers, USB, Bluetooth and NFC connectivity, GPIO and 4-wire ports, and even a light sensor for auto-calibration of screen brightness in changing light environments.

The new 1200 series SmartPanel RSP-1232HL is bursting at the seams with innovative features that deliver real operational and business benefits.

STAND-ALONE AND MORE
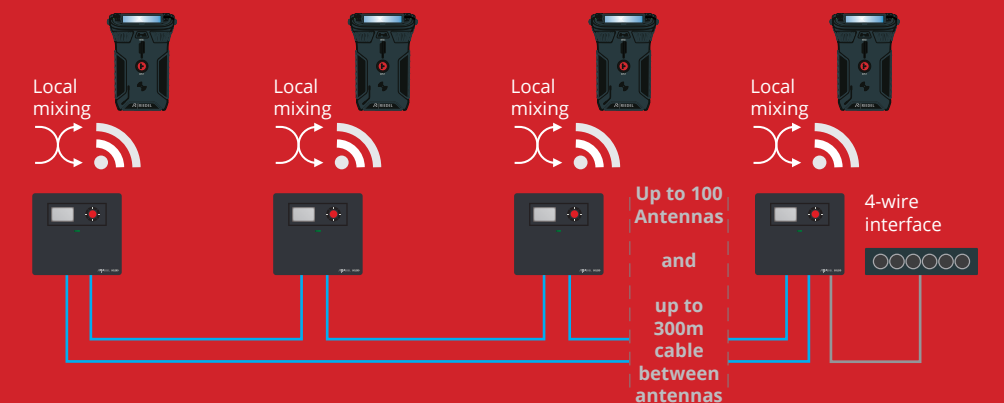
Over that past year, Bolero has set the standard for what modern wireless intercoms should be. It's perfomance speaks for itself and clients around the globe continue to be blown away by it's range, sound quality, and beltpack density.

Of course, It is always possible to make improvements and so, armed with our product roadmap and valuable input from users, we are able to introduce the Bolero Stand-Alone Application at the 2018 NAB Show.

We've provided new capabilities with this first update including individual Rotary programming and Bluetooth headset support. We have also added a beltpack QuickMute feature that allows users to quickly and easily mute all channels.

But the biggest change is that Bolero can now be operated in stand-alone mode and interfaced with other intercom systems. With the Bolero Stand-Alone Application, antennas are simply daisy-chained to each other in a redundant ring via a low-latency synchronized TDM network. There is no IP configuration necessary – it's all plug and play!

A new external power supply can power to up to 5 antennas so power and data redundancies are easily achieved. A new external interface box, with six analog 4-wires and three GPIOs, can then be patched to other intercom systems. No AES67 switch or base station is required.

Now rental houses, smaller installations where Bolero alone can handle the entire intercom requirement, or users of other intercom systems can enjoy the power and elegance that only comes with Bolero from Riedel.

MEDIORNET GOES IP
CONNECTING WORLDS

MediorNet MicroN is software-enabled hardware that can be many different things. It can be a throw-down signal processor, a simple point-to-point link for up to 12 bi-directional HD signals, or part of a large de-centralized router. It can even be a MultiViewer! Now it can also be a bridge between MediorNet networks and IP networks!
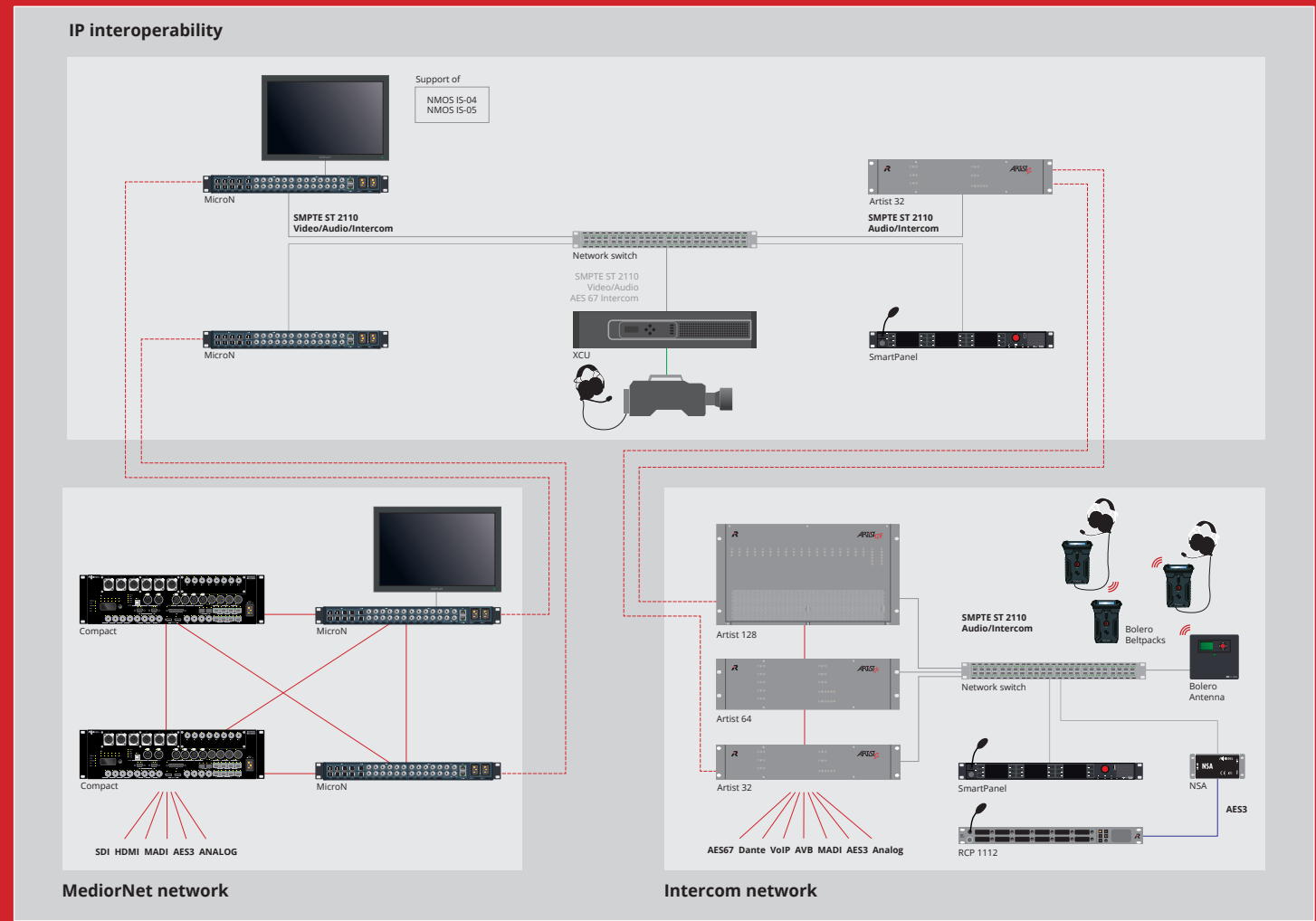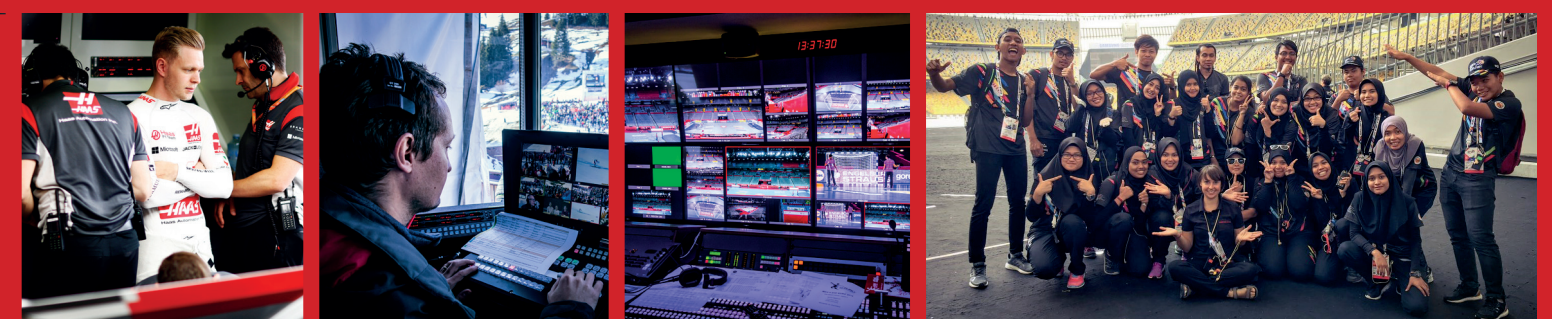
The MediorNet MicroN IP App includes support for up to 4 SMPTE ST 2110-20 inputs and outputs plus 4 baseband 3G-SDI signals and 8 3G-SDI outputs, with 4 of those dedicated to monitoring the ST 2110-20 streams. Also supported are 4 MediorNet HighSpeed Links, AES67 audio, 2 optical MADI ports, and sync I/O. MediorNet MicroN IP also supports NMOS device discovery/registration and connection management or manual configuration for non-NMOS installations.
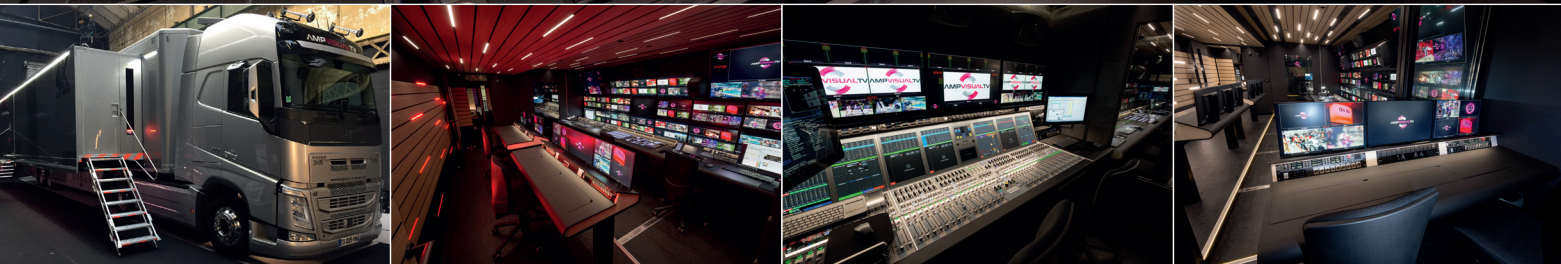
MediorNet MicroN IP is fully PTPv2 compliant and allows to syncronize MediorNet to either PTP or traditional sync signals (like BlackBurst).

KEY FEATURES:

- **Full MediorNet Integration**
  IP Video and Audio Streams are treated like native MediorNet signals
- **Flexible MicroN App Switching**
  Hybrid migration from baseband centric to IP centric workflows
- **SMPTE ST2110 (AES67) Standard Support**
  Full Standard compliant implementation of SMPTE ST2110
- **NMOS IS-04 and IS-05 Support**
  Latest specification implementation of NMOS IS-04 and IS-05

"The MediorNet MicroN IP App is really the inevitable next step for the MediorNet ecosystem as we move ever closer to an IP future," said Dr. Lars Höhmann, Product Manager at Riedel Communications. "With several I/O options and complete flexibility in placement, MediorNet MicroN IP can create IP endpoints anywhere in an installation to create a truly hybrid signal-transport and processing environment."

With products like the MediorNet MicroN IP, Artist digital matrix intercom, and the category-defining Bolero wireless intercom, Riedel continues to build upon its support of synchronized IP networks as the future of broadcast infrastructures. When combined with tight integration between product families, these solutions create a proven, future-proof, and risk-free transition between baseband and IP workflows.

IP interoperability

MediorNet network

Intercom network

Follow us for more ...

Full Suite of Riedel Gear Enables Flexible and Reliable Comms Onboard AMP VISUAL TV's Millenium 6

AMP-ING UP OB SIGNAL TRANSPORT

TV coverage specialist AMP VISUAL TV, an innovator in the design of outside broadcast (OB) vans for remote video productions, has outfitted its newest 4K HDR OB van — Millenium 6 — with an extensive complement of Riedel equipment. A robust MediorNet real-time media network supports as many as 26 wired and wireless cameras, a Multiviewer monitor wall, and Artist (wired) and Bolero (wireless) intercom systems onboard the new van.

AMP VISUAL TV has one of Europe's largest and most modern fleets of OB vans engineered to meet the requirements of global entertainment events, television studio shows, and sports competitions. AMP VISUAL TV's Millenium OB vans boast a rich blend of space, comfort, ergonomics, and power — the perfect conditions for producing any kind of program.

Following on the successful deployment of its Millenium Signature 12 (MS12) OB van, AMP VISUAL TV again invested in Riedel gear to ensure flexible, reliable communications and signal transport within Millenium 6. The new van is an extensible semi-trailer that incorporates flexible workspaces. For example, using a partition system similar to MS12, the production area can be split into two spaces. Their RF-12 fly packs can then be easily added to further extend their 4K production capabilities.

With similar Riedel systems installed in both MS12 and Millenium 6, members of the production team can easily transition from one van to the other as the production schedule demands. Familiarity with Riedel gear allows them to hit the ground running rather than spend time coming up to speed on new equipment and workflows.

"By basing our OB vans on MediorNet and other Riedel systems, we enjoy a great deal of freedom in creating the sophisticated media infrastructures critical to modern productions," said François Valadoux, Chief Technology Officer at AMP VISUAL TV. "Riedel gear delivers the performance we require and the flexibility we need to address the demands of working in 4K. It was an obvious choice for our newest OB van."

THE WINNING FORMULA

Riedel and Formula One –
A Long-Term Motorsports Partnership

Supporting large, international sporting events with seamless communications is one of the things Riedel Communications does best. Going back to 1993, Riedel has been supplying wired and wireless infrastructures for one of the world's most challenging communications environments: Formula One (F1) motorsports. Today, Riedel continues to provide radio and intercom systems to race control and various race teams for every F1 race from March to November and across five different continents.

Achieving fail-proof, real-time communications is no easy feat in an environment where peak noise levels typically exceed 130dB. To accomplish this, Riedel built and manages a specialized Command and Control Centre, a single flyaway system equipped with MediorNet media network devices and Artist 64/128 matrices, which collectively provide all radio and intercom services for the race. And starting with the 2018 season, the all-new Bolero wireless intercom system has been rolled out to all F1 users.

The Command and Control Centre team also manages all video feeds from more than 100 cameras positioned along the circuit, ensuring that these feeds are available to the Fédération Internationale de l'Automobile (FIA), Formula One Management (FOM), and all the F1 race teams throughout the race. Video streams are distributed from the Command and Control Centre to each race team's garage for monitoring the progress of their cars along the circuit.

Additionally, Riedel has installed a new software solution that enables FIA race control to monitor each situation and track decision during the race. The teams can also analyze critical scenes and monitor how each driver is performing, as well as monitor the entire race.

Seamless integration of wired and wireless systems, ensuring 100-percent reliability, and providing for IP-networking for various teams doesn't just require a lot of experience, it also mandates extensive experience in system planning. As this successful long-term partnership with F1 demonstrates, Riedel is the right company for the job.

RIEDEL EXPANDS SOLUTIONS PORTFOLIO THROUGH SIGNIFICANT INVESTMENTS, ACQUISITIONS, AND PARTNERSHIPS

At Riedel, partnering with best-of-breed technology companies is a critical element in a broad strategy to offer customers the richest-possible solution sets. By that measure, Riedel is riding a big wave of momentum — with three new strategic partnerships and acquisitions announced in the first quarter of 2018.

Through a brand-new partnership with simply-X, a German provider of access control systems, cash and contactless payment solutions, and fan engagement, Riedel is expanding its range of technical and logistical services in the event sector. Riedel will offer simply-X solutions through its rental organization, giving customers a unified infrastructure for integrating cashless payments and access control systems into worldwide event productions. The collaboration creates numerous synergies in the technical, economic, and logistics arenas, allowing customers the ability to align all processes and services and provide guests of global events with a seamless and pleasurable experience.

Underlining Riedel's commitment to audio standards, the company has acquired Archwave, a Swiss engineering pioneer in audio networking and streaming that vigorously promotes open standards for the interconnection of audio and video equipment in professional environments. In addition, Riedel has acquired Cymatic Audio, an audio specialist that will enable the company to expand its presence in the music marketplace and among musicians. With these two acquisitions, Riedel has established a powerful engineering hub in Zurich that strengthens the company's R&D capabilities for IP and standards such as AES67, further boosting interoperability in the broadcast world. By increasing the global R&D team to over 100 engineers, Riedel now has a full complement of tools for creating the plug-and-play workflows that clients need for their transition to IP.

By acquiring shares of Guest-One, experts in guest management and crew accreditation, Riedel is gaining first-class expertise and deep understanding in software-based participant management. With this deal, Riedel can now offer digital solutions for guest management and accreditation through its rental business. The investment in Guest-One will set new standards for visitor and event security with customized solutions, all from a single source. Guest-One is also optimally prepared for the important European data protection directive (GDPR), that takes effect in May 2018.

ANGELIKA

For more than 20 years now, Angelika Helbig has been the woman behind the man. As Thomas Riedel's assistant, she has seen almost everything as the company grew from less than 50 employees to over 500 today. This spring, Angelika will bid Riedel Auf Wiedersehen and begin a well-deserved retirement. We had a chance to ask her to reflect on her years at Riedel and her hopes for the future.

You have been an important part of the Riedel family for a long time and have great relationships with many of the employees . How does that make you feel?

It is true that I have spent more time with my colleagues than with my own family. And yes, in many ways, the Riedel family is part of my family. I take great joy in the deep friendships that have developed. Riedel attracts young, smart, energetic people and I think that has helped to keep me young, too!

What have been the biggest changes in Riedel over your time here?

The number of employees has increased more than tenfold and the internal company culture is now much more open and appealing. Founded in a modest garage, we now have state-of the art headquarters and are a large part of life here in Wuppertal.

What has been the secret to your success and longevity at Riedel?

There are always going to be good days and bad days. Thankfully, the good far outnumber the bad! I think the key to longevity at any job involves respect for your colleagues and a lot of patience, serenity, and kindness. A great sense of humor helps a lot, too!

What was your favorite Riedel moment?

I really enjoyed all the trade shows. It was my time to meet with my colleagues from around the world who I would only get to know through email and phone calls. Our parties were brilliant, too!

What do you have in common with Thomas?

Thomas and I are very different characters and I guess that is the secret of our long lasting relastionship. We play to each other's strengths and we both love ginger tea!

Can you tell us a secret about Thomas that no one else knows?

No comment. Discretion is paramount in my position. What happens in Wuppertal, stays in Wuppertal.

As you retire, what is your wish for the future of Riedel?

Riedel will always hold a special place in my heart. As I said, the company is part of the fabric of Wuppertal now, so it will be very easy to watch their continued success. The company has amazing passion and, of course, that starts at the top with Thomas. I wish that they keep the passion and continue to accomplish amazing things!

CAMPUS-WIDE CONNECTIVITY
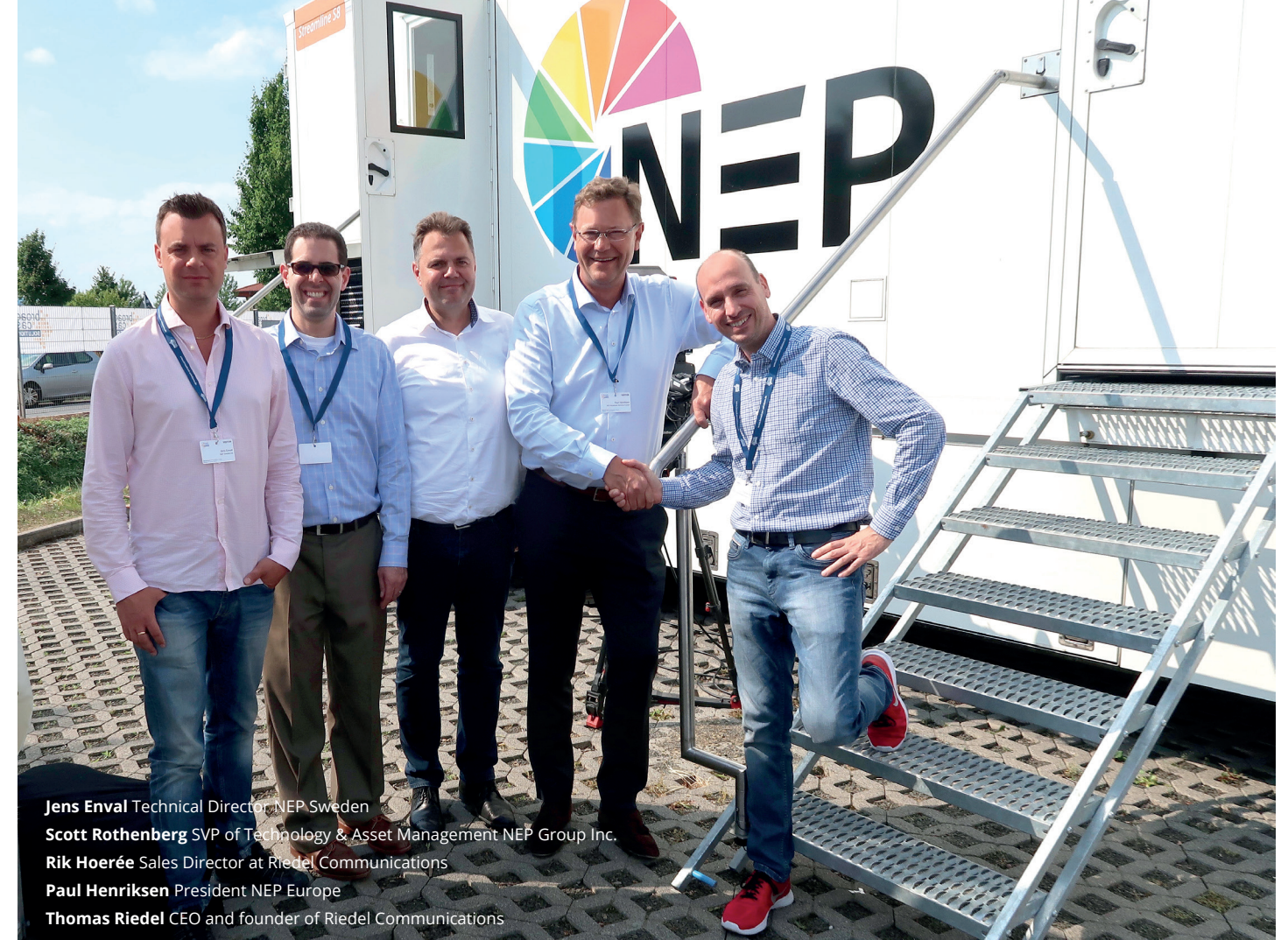## AT THE BANFF CENTRE

The Banff Centre for Arts and Creativity has grown to become Canada's largest arts training institution and a global organization leading in arts, culture, and creativity across dozens of disciplines. And now, the Banff Centre has chosen Riedel's MediorNet real-time media network to interconnect the entire facility, including theatres, recital halls, recording studios, and production facilities.

Situated on a stunning 42-acre campus in the Canadian Rockies near Banff, Alberta, Banff Centre aims to inspire everyone who attends to unleash their creative potential and realize their unique contribution to society through cross-disciplinary learning opportunities, world-class performances, and public outreach.

Until recently, the spread-out nature of the campus, with venues distributed across a wide geographical area, created logistical challenges for the staff. The Banff Centre has overcome these challenges with an integrated and decentralized signal transport network consisting of five MediorNet Compact PRO 50G media distribution frames. With a MediorNet Compact PRO unit deployed permanently in each of two control rooms and three more used as portable stageboxes at various event venues, Banff Centre can simultaneously interconnect multiple performance and recording spaces with a self-healing, redundant fiber ring of multiplexed HD-SDI video, MADI audio, analog audio, Ethernet, and intercom signals.

For larger productions, where two studios are active simultaneously and supported by both control rooms, the Banff Centre team can create fiber links between the two studio stageboxes — while the third stagebox manages the active cross-feeds between control rooms.

Woody MacPhail, the Banff Centre's Senior Producer/Technical Director, media and production, commented, "The MediorNet system has allowed us to tie our campus together in one comprehensive fiber-optic production network. This robust flexibility is handy since we often have simultaneous performance and recording demands that occur throughout our campus. Establishing remote feeds is now a much more efficient process by which we just route signals to our remote video and audio control rooms as the need arises."

Jens Enval Technical Director, NEP Sweden
Scott Rothenberg SVP of Technology & Asset Management NEP Group Inc.
Rik Hoerée Sales Director at Riedel Communications
Paul Henriksen President NEP Europe
Thomas Riedel CEO and founder of Riedel Communications

NEP LEAVES TRADITIONAL ROUTING BEHIND

MediorNet Provides Decentralized Signal Routing Aboard NEP Sweden's All-New UHD Van

NEP Sweden has joined the growing list of NEP divisions that have embraced MediorNet for decentralized routing. As the newest subsidiary of NEP Europe, one of the continent's largest providers of OB services, NEP Sweden is installing MediorNet on board its all-new UHD/4K OB van, UHD 1.

MediorNet will provide a decentralized and redundant communications and signal routing backbone to support UHD 1's coverage of a broad range of high-profile live productions. UHD 1 will feature eight MetroN core routers, a MediorNet Modular, 27 MicroN high-density media distribution network devices, and an additional 12 MicroNs configured with Riedel's MediorNet MultiViewer App to support comprehensive monitoring.

The decentralized network conveniently allows signal I/O to be placed exactly where needed, enabling NEP Sweden to reduce cabling and overall system complexity. Two MediorNet Compact Pro frames are also available for use as stage boxes.

"We designed our new van to be a showcase for the latest in 4K and UHD broadcasting technologies, and Riedel's MediorNet is no exception. The highly scalable MediorNet signal transport and routing system gives us new dimensions of flexibility, redundancy, and reliability, paving the way for the van to support any type of 4K production," said Jens Envall, Technical Director, NEP Sweden. "We also appreciate the simplicity of the solution. With capabilities like the MediorNet MultiViewer App and other built-in signal processing, we're able to eliminate the need for many external devices."

With its track record of delivering first-class live broadcasts of all types and sizes, NEP Sweden's choice is a strong endorsement of MediorNet's power and versatility. It will be exciting to see what types of marquee shows NEP Sweden will be producing with its new UHD 1 van.
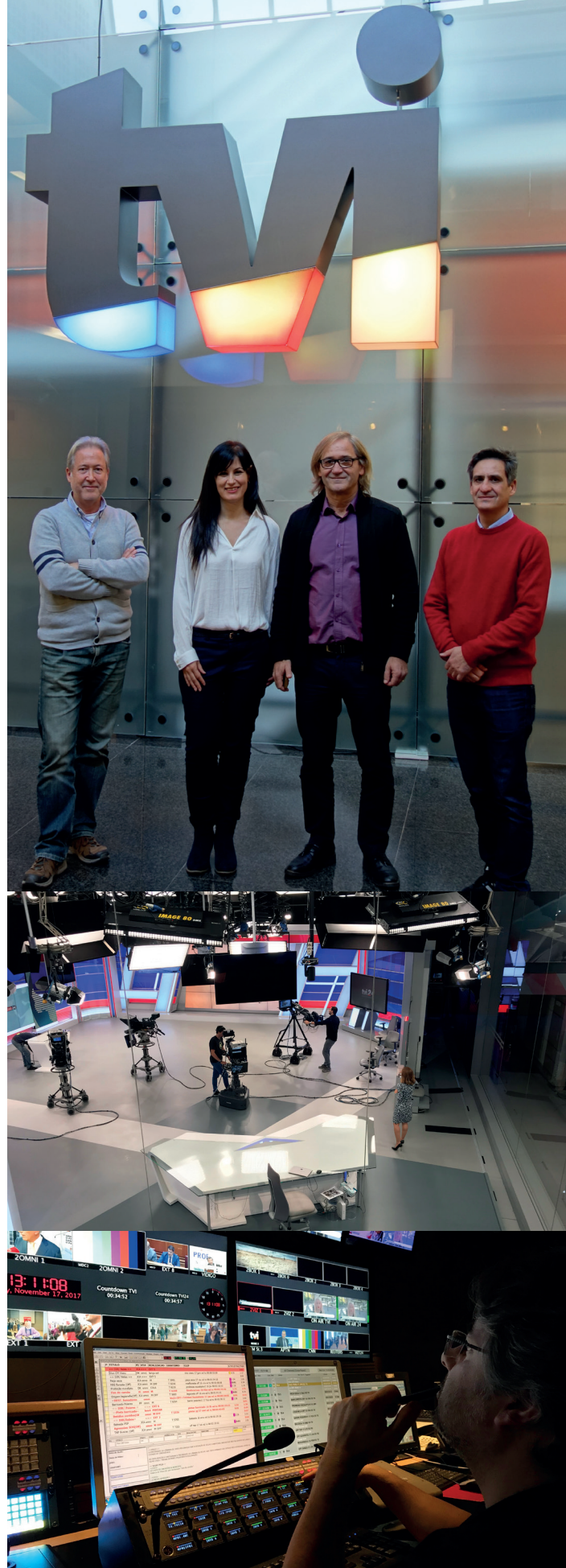
RIEDEL ARTIST ANCHORS STUDIO MODERNIZATION AT TVI PORTUGAL

As a key part of TVI Portugal's facility-wide modernization program, Riedel's Artist digital matrix intercom system is providing comprehensive communications in support of the national network's news, sports, and entertainment programming. Easily managed by a small team at TVI, the new Artist system operates seamlessly with an existing conference system to allow for communications across three fiber-connected studios on site and via IFB connections to various external locations.

TVI offers live news and other programming on a daily basis, as well as live coverage of many different sports (soccer, roller hockey, handball, etc.). TVI recently modernized its broadcast facilities to better support these and other live productions, and the broadcaster selected Artist following exhaustive market research.

The Riedel system is deployed across TVI studios dedicated to news, virtual production, and entertainment, and the three areas are linked by centrally and dynamically managed IFBs and mix-minuses with 2x39 simultaneous direct inputs from three different consoles (direct outs and mix minus) being used to create feeds. Working with this Artist setup, TVI staff in both audio and master control can take advantage of time-saving features, including presets that recall snapshots of frequently used system configurations. Artist not only simplifies management of fiber lines between the studios but also serves as an audio router for the 48 VoIP lines that facilitate guest commentary and live call-in contributors to TVI news programs.

TVI put Artist to its first major test for coverage of Portugal's national elections, a huge show incorporating 37 concurrent IFBs to different points in the country. As it expands its channel offerings in Portugal and beyond, the broadcaster plans to continue modernizing and upgrading its communications capabilities with further deployments of Riedel gear.

"Riedel really understood what we wanted and helped us to squeeze everything possible out of the company's Artist system," said Carlos Gomes, Head of Technical Operations at TVI. "Working closely with Riedel and the company's local integrator, AvanTools, we've implemented a truly elegant intercom solution — a Ferrari of a system — built on equipment known for its performance and reliability."

MAKING NEW FRIENDS WHEREVER WE GO

In the eye of the storm, this is where you'll find the Friends of the Games (FOG). Right in the center of international, large-scale events we create a small island for friends and partners of the global events community to meet, relax, celebrate, party, exchange past adventures, and share visions of the future. For the 2018 PyeongChang Winter Games, the Lounge located at the "Village of Nations" in the YongPyong Resort.

The FOG Lounge was again designed to support solution providers, broadcasters, OB companies, decision-makers, media, and other professionals by allowing them to share knowledge, discuss best practices, and have stimulating dialogues on how sports broadcast technology has changed and what can be expected for the future. This time, RIEDEL partnered with Hochsitz, Skype/Microsoft, ETC, DB Schenker, and wige SOLUTIONS to build the FOG Lounge.

Lounge invitations, registrations, and accreditations were implemented flawlessly thanks to FOG supporter Guest-One. Wonder Works Limited of UK, another FOG supporter, was one of the key players behind the Opening Ceremony production.

The FOG 'Family' welcomed guests like Annika Strandhäll, Swedish Minister for Sports and Per Palmström, Vice President of the Swedish National Olympic Committee. HSH Prince Albert II of Monaco, former minister and CEO of the German Olympic Sports Confederation Dr. Michael Vesper, Olympic bronze medal winning Austrian ski jumper Andreas Goldberger, and the directors of sports at ARD, ZDF, ORF, and SRF also dropped by.

The FOG Lounge also featured special events and live concerts. SVG's TechTalk 'Ceremonies – Bigger, Brighter, Bolder' provided FOG guests with insights into the hard work, dedication, passion, and commitment that is required to deliver some of the world's largest events. Snowboarder Pat Burgener from Switzerland presented an acoustic set at the Lounge. Swiss combo Baba Shrimps, whose "Hurry Hurry" was selected as the official PyeongChang 2018 song for Switzerland's SRF, performed an 'unplugged' set. Then, FOG's 'Sports Presentation Night', celebrated producers and their venue teams.

We will certainly miss our friends but there's no time to be sentimental. The next FOG Lounge is coming soon! Stay tuned!

LEHIGH UNIVERSITY'S ZOELLNER ARTS CENTER GOES BOLERO

In one of its first U.S. installations, Bolero is providing comprehensive and reliable staff communications for university in Bethlehem, Pennsylvania

As the home of Lehigh University's music and theater departments, the Zoellner Arts Center houses the 1,000-seat Baker Hall, the 300-seat Diamond Theater, and the 125-seat Fowler Black Box informal theater in addition to a two-story art gallery, state-of-the-art recording studio, and several large classrooms. Several key Bolero features allow the arts center to save money without sacrificing coverage or quality over so many workspaces. First, Riedel's exclusive Advanced DECT Receiver (ADR) technology improves RF robustness by reducing sensitivity to multipath RF reflections. Then, the exceptional range and beltpack density of the AES67-networked antennas means fewer antennas.

Fully integrated into Riedel's Artist digital matrix intercom platform, Bolero offers a rich set of features and connectivity that can be applied three ways: as an exceptional wireless beltpack, as a wireless keypanel, and — in an industry first — as a walkie-talkie radio. The Zoellner Arts Center has taken the first approach, deploying 12 Bolero beltpacks to the production team. Bolero's ADR technology enables full roaming for crew members across all three performance halls while a Riedel RiFace radio interface allows front-of-house staff, who use walkie-talkies, to easily communicate with Bolero users via the Artist.

"With all of our venues and spaces sharing the same technical infrastructure and equipment, we needed a crew communications system that could provide high-quality, wide coverage both inside and outside the arts center. We also needed a solution that would be easy to use while providing seamless integration with our existing third-party partyline gear," said Joshua Kovar, Production Manager, Zoellner Arts Center. "Not only does Bolero meet these requirements, but now the communications in the theaters can be separated for concurrent performances as well as combined for large events that use all of the spaces."

Recent Installations (selected)

FRANCE
Paris
Stade de France
(Stadium Installation)
MN MCN

FRANCE
Paris
AMP Visual TV
(Outside Broadcast)
MCN MN SP PF AR BO

UK
London
ITV
(Broadcast Studio)
AR MN BO

UK
London
Discovery
(Live Event Production)
BO AR

NETHERLANDS
Amersfoort
For Live Productions
(Live Event Production)
RN SP MN BO AR

GERMANY
Berlin
Riot Games
(eSports Broadcast Studio)
MN BO MCN

BELGIUM
Brussels
VRT
(Broadcast Studio)
BO AR

POLAND
Warsaw
TV Onet
(Broadcast Studio)
SP BO AR

UKRAINE
Kiew
Mariinskiy Palace
(Culture Center
Installation)
MN MCN RN

JAPAN
Nagoya
Tokai TV Production
(Outside Broadcast)
BO AR

JAPAN
Tokyo
NHK
(Outside Broadcast)
MN MCN

CANADA
Banff
Banff Centre for Arts and
Creativity
(Theater Installation)
MN

CHINA
Shanghai
Riot Games
(Broadcast Studio)
AR MCN

USA
Charlotte
Carolina Panthers
(Stadium Installation)
AR BO

CHINA
Shanghai
SMT
(Outside Broadcast)
AR MN

USA
Memphis
Memphis Grizzlies (NBA
Basketball)
(Arena Installation)
BO

MEXICO
Mexico City
TV Azteca
(Broadcast Studio)
MCN

UAE
AbuDhabi
Zayed Sports City
(Stadium Installation)
RN MN MCN

CROATIA
Zagreb
Gama Studio d.o.o.
(Broadcast Studio)
BO MCN AR

AUSTRALIA
Gold Coast
HOTA
(Theater Installation)
BO

SPAIN
Madrid
Atresmedia
(Broadcast Studio)
SP MN AR

ARGENTINA
Buenos Aires
Teatro san Martín
(Theater Installation)
MN TNG

BRAZIL
Rio de Janeiro
Globosat
(Outside Broadcast)
BO

Switzerland
Zurich
SwissRe
(Facility Installation)
SP STX MN AR

ITALY
Chieti
Cinevideo
(Outside Broadcast)
AR MN

SOUTH AFRICA
Johannesburg
SuperSport
(Outside Broadcast)
MN MCN

EGYPT
Cairo
DMC Network
(Broadcast Studio)
AR MN STX

QATAR
Doha
QTV
(Outside Broadcast)
PF BO

AUSTRALIA
Perth
Hillsong
(House of Worship)
BO

AUSTRALIA
Sydney
Big Picture
(Outside Broadcast)
MCN

On Air

★
Producer LA

Reply

Lighting
Bolero BP Conf 1

Riggers
Bolero BP Conf 2

Runners
Bolero BP Conf 3

Sec
Bolero E

IFB 01
Field Reporter

IFB 02
Interview

★
IFB 03
Studio Atlanta

IFB
Studio N