

DIGITALLY DIFFERENT



Roger Hodgson and band mates joined by an orchestra for a show on the Breakfast in America tour.



Engineer Howard Heckers (left) and stage tech Wim Daans showing the system's iPad control interface.

Breakfast in America travels with AVB-based personal monitoring.

by Gregory A. DeTogne

“Wouldn't it be cool if someone built a little black box that we could connect an iPad to and do our own mixes onstage?” Little did Roger Hodgson, the voice of Supertramp and composer of the band's biggest hits, realize when he made this wish out loud that just

such a box would be handed to him in short order.

Hodgson and his current band, which includes multi-instrumentalist Aaron Macdonald, Kevin Adamson on keyboards, bassist David J. Carpenter, and drummer Bryan Head, are currently crossing the globe as part of the ongoing Breakfast in America world tour. They've been hailed as making timeless Hodgson classics like “Give a Little Bit,” “Dreamer,” and “The Logical Song” sound better than when they first climbed the charts years ago.

Exceptionally melodic and fluid onstage, and capable of routinely dispensing complex orchestrations, the band had been listening to its own personal mixes with a 16-channel system until recently. “There are limitations with only 16 channels,” says Howard Heckers, Hodgson's front of house engineer. “Everyone is pretty much going to be listening to the same things in one fashion or another. That's why at

the beginning of this year we had hopes of discovering a new system that would provide us with a broader aural palette.

“We thought if we could double our capacity, there would be more choices available,” he continues. “Everyone wouldn’t necessarily have to use all 32 channels, but we could provide seven or eight channels of drums, for example, and let everyone pick what they wanted. Improving our fidelity along the way was anticipated by all as well.”

Stemming from a chance meeting in an Air Canada lounge between band members Adamson and Macdonald

running the company’s V2Mix Pro app, his interest ratcheted up. He went and got Hodgson. handed the frontman the iPad, and simply said, “This could be your monitor mixer.”

“Fantastic,” Hodgson replied. “Can you leave this here with us? We’ll buy it.”

Communicating Needs

“He hadn’t even heard it yet,” Knesel recalls, “and then he told me how he had been hanging out with his band talking about getting such a device not long before our meeting. If ever I was in the right place at the right time, this was it.”



Tom Knesel (in hat) addressing the finer points of the system interface with musicians (left to right) David J. Carpenter, Bryan Head and Aaron Macdonald.

and Bill Coons of Contact Distribution, the road to meeting Heckers’ 32-channel, high-fidelity personal monitoring goals, as well as Hodgson’s own iPad vision, was to be paved. Via Coons, who represents Pennsylvania-based Pivitec in the Canadian market, a meeting was arranged between Heckers and Pivitec’s Tom Knesel.

Pivitec had just introduced a 32-channel personal monitor mixing system based around Ethernet AVB protocols. After Knesel showed Heckers a demo system one night backstage using components including an e16i input module, e32 mixer, and an iPad

That night Adamson was enlisted as the band’s first “test mule” for the system. Gaining valuable feedback from him after the show, Knesel developed the system further and set a date for the band to try a full-on test the next time they were in Pennsylvania. This next test proved to be a success, and at that point it was agreed that the band would implement it.

“But this was the last gig of an American leg of the tour,” Knesel adds, “and they were going to be off for a few months. We decided that rather than do something crazy like try to assemble a system and shove them out the door to do their next one-off gig in South

America, we’d meet them at the Ruth Eckerd Hall in Clearwater, Florida, in March of this year when they came back to resume the North American tour. That would give us all time to communicate our needs back-and-forth and really fine-tune the full system.”

As conceived by Pivitec and the Hodgson team, the band’s new personal monitoring system receives analog input from Heckers’ DiGiCo console, with signals arriving at a pair of e16i 16-channel input modules, which Ethernet-connect to a e9sw-p switch. A 9-port managed GbE switch supporting PoE, the e9sw-p makes all of the system’s network connections. A sum total of six of e32 32-channel mixers plug-in here, as does a wi-fi base station that interfaces with the system’s iPads for control.

As a result, the band was able to ditch an entire flight case of old gear. In its place, four channels of Sennheiser wireless mic systems and another four channels of wireless Sennheiser IEM systems all drop into a 5-space rack that also houses all of the wireless antenna combiners, receivers for the mics, transmitters for the IEMs, antenna combiners, and power supplies. In turn, this entire package fits into a Pelican case.

Ready To Travel

The Pivitec system follows a similar plan, once again easily packing itself into a 5-space rack that slips into a Pelican case. Both cases tip the scales at less than 70 pounds and have been confidently checked as baggage on flights around the world since the system was commissioned in March.

Three of the e32 mixers are rack-mounted. Two more are hardwired onstage for drummer Bryan Head and bassist David Carpenter. The sixth e32 provided with the rig is officially designated as a spare, but sees regular use under the guidance of stage tech Wim Daans, who uses it to keep tabs on the



network audio that's traveling to each of the musicians.

Each e32 has a high-output headphone amp built to work in loud environments. Stereo line outputs are provided for driving other devices like wireless IEMs, power amps, or powered loudspeakers. Digital-to-analog conversion (24-bit/48 kHz) is onboard, and the built-in DSP offers three bands of EQ on each channel as well as a stereo 3-band EQ and limiter on the master outputs. There's also a "local" stereo line level input found on the device as well that's useful for connecting an MP3 player or click track. The musicians simply plug directly into the headphone amp to activate their "ears."

All of the musicians control their



Tom Knesel (right) showing Aaron Macdonald some of the finer points of the control surface.

mixes from onstage using their iPads, except for Hodgson, who has Heckers dial-in his. "Roger likes a house mix," Knesel explains. "So what we built for him with the Pivitec gear is house minus some things. Those channels can be added back if he wants."

The V2Mix Pro iPad app gives the musicians 32-channels worth of faders arranged on four screens housing eight faders apiece. Solo, mute, and pan is available on each channel, there are 16 mix presets, and there is a master section with volume, 3-band EQ, and a limiter.

Adapt & Thrive

With Ethernet AVB serving as its network backbone, the system is ready to easily adapt to whatever the future holds. "The Ethernet AVB protocol holds the promise of continuing to work reliably well into the future," Heckers states. "Cost, user acceptance in the industry, and interoperability are issues of major concern, and the technology addresses all of these well when compared to other systems. The sonic quality is exceptional, I think for two reasons: one is inherent within the transport circuitry itself, and the other lies in the A/D conversion process used."

On the mixer side of the equation, the e32s follow suit using a discreet Class AB headphone amplifier and a bipolar

Drummer Bryan Head and the iPad (at left) providing access to his monitor mix, while bassist David J. Carpenter makes an adjustment during the show.

power supply that increases headroom once again at plus or minus 15 volts. As used by Hodgson and his band under digital control, the mixers all operate in their own separate worlds with their own DSP. From the musicians' standpoint, this translates into clean, powerful sound with low background noise.

The system was buttoned-up by the time it was delivered to the Ruth Eckerd Theatre in Clearwater. A quick-disconnect panel on the back of the rack facilitated easy load-ins and speedy exits, while the same logic guided the addition of quick disconnects on the mixer ends of the rig onstage.

"My hat is really off to Howard," Knesel says on a parting note. "In his capacity, he's been doing FOH and monitors simultaneously over the course of many tours. Much can be said of how this system has changed the working roles of the musicians onstage, but it certainly has made Howard's life easier as well." ■

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