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12 Holograms I See Dead People Musion Systems Makes Reality Questionable

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mond tour

FROM THE **Publisher**



Welcome again to mobile Production monthly.

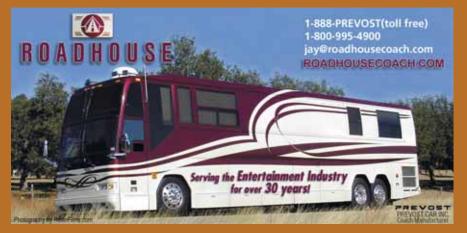
This month we bring you details of the current Neil
Diamond tour. Diamond has been touring pretty much
non-stop for the past 40 years and it doesn't seem that
he will be stopping anytime soon. Joining Mr. Diamond
on this tour is Firehouse Productions and the latest JBL
VTX, an extension of the VERTEC system.

Ron Martinelli of AAA Communications talks to *mPm* about his companies growth over the last few years, and we have part one of a great interview with Neil Diamond Lighting Designer Marilyn Lowey, one of the few high profile female LD's on the road today.

One of the more fascinating stories we have published this year is the emerging hologram technology being produced by Musion Systems, Ltd. Our UK correspondent Richard Bennett visited Musion and spoke to Director James Rock about all things 3D and it's future in the touring industry.

Hope you enjoy this issue, and we will see you next month with a look at Roger Water's never-ending *The Wall* tour as Michael Beck visited Fenway Park to see "The Wall at the Wall."

Larry Smith





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the News

ighting

CHRISTIE LITES Opens Nashville Office

New Location / New Account Staff - Same Full Service / Support

Christie Lites has opened a Nashville office and warehouse, the latest additions to its multioffice network of full service stage lighting supply locations across North America.

Effective immediately, the Christie Lites Rental Rep team will support clients from its newest regional office location within the Soundcheck complex at 740 Cowan St. in Nashville.

Equipment support of the full CL range of lighting and rigging equipment will come from Christie Lites' new warehouse and prep location in the Nashville suburb of Antioch. The 50,000 sq. ft. high volume facility is located at 6050 Dana Way.

Shannon Scott, long time industry professional from Huntsville AL, has joined the Rental Rep team and is based in the new Nashville location. Scott started in the industry in 1997 in operations and quickly began touring with such acts as Hank Williams Jr. He was most recently a senior Project Manager handling a wide variety of touring, worship and special events.

Christie Lites CEO Huntly Christie said, "As a strong relationship builder with more than 20 years of experience in the lighting industry, Shannon is a perfect fit. We follow a 'One Contact - One Rep' client management policy, and believe we are unique in this regard, as we support our clients based not on geographical territory but on relationships." ♦

Shannon Scott 256-684-3136 sscot@christielites.com

HSL Rocks With **Prodigy at Download**

Lighting and visuals rental company HSL supplied a substantial 'specials' package - including 170 moving lights, custom metal ribs inset with LEDs and a Kinesys automation system - for The Prodigy's hell-raising headliner performance at the 2012 Download festival, staged at Donnington Race Track near Derby.

The band's show visuals were designed by Andy Hurst. As you'd expect it was a high impact, high energy, relentlessly pumping show musically and visually.

HSL's Mike Oates project managed with HSL's Tim Fawkes working as system and console tech on-site, and also assisting Hurst with the WYSIWYG pre-programming, completed in HSL's dedicated visualisation facility at their new warehouse in Blackburn.

The backbone of the rig was 16 custom 8 metre high curved 'ribs' which were all individually outlined with LEDs, flown across the full stage width on three staggered upstage trusses. The idea being to add depth to the whole performance space.

These trusses were flown on Kinesys beam trolleys so they could be tracked upstage during the day and concertina'd together, saving as much space as possible and not encroaching on all the other daytime stage activities.

During the changeover, they were tracked downstage and into place with 2.5 metres separation between each truss.

Hurst spec'd 96 of Robe's new ROBIN LEDBeam 100s which

CHRISTIE LITES

were dotted all over the ribs and used for fast zappy, punchy tight beam effects. He also utilised 63 Clay Paky Sharpies for zip-zapping around the stage and lots of

zany movement.

Forty eight Atomic strobes were spread all over the ribs, and 16 Robe LEDWash 600s were positioned on the downstage edge of the deck - where the band like to concentrate their high octane performance - for front lighting.

Downstage, five triangular pods made from 30 cm trussing and hinges were flown on ten Kinesys 20 metres-a-minute Liftket motors. A JTE PixelLine picked out the edge of each triangle and they were also loaded with three Sharpies each. When they first lowered in it was like a Space Invader moment as they appeared to battle with the band!

For control, HSL supplied two Road Hog Full Boars run in full tracking backup in combination with six DP 8000 processors.

The initial lighting design was completed in WYSWYG, and pre-programmed in the two weeks immediately before the show. On site, they had one full night of programing in situ - which was accompanied by torrential rain and bitingly cold winds as the site was transformed into a huge swamp of mud.

The biggest technical challenge

came with rigging such a large amount of kit in a short space of time, all of which had to be carefully fitted in around the house equipment and points and then removed immediately afterwards.

The get out was achieved in an impressive three and a half hours after the show ended, leaving the stage clear for the next night's headliners, Metallica.

Says Hurst, "The design was created as a one off for Download festival. I wanted to fill the stage top to bottom as well as give the space a distinctive set architecture. The ribs gave an industrial look and created a great deal of depth ... due to the fact the band performance area is only 17ft deep from the down stage edge of the stage.

"Everyone at HSL and my lighting crew worked really hard to get this show in, up and running with no rehearsals, which was a great achievement in itself." ♦

Sound

CLEARWING Supplies the Chris de Burgh **Moonfleet Tour**

Clearwing Productions provided audio and lighting and hired Mindpool for video for the Chris de Burgh Moonfleet World Tour 2012 - Canada.





The Canadian leg of the World Tour encompassed 18 days and 8 venues from April 26th - May 13th, and Bill Price of Clearwing Productions was the sole Audio Tech as well as the Production Manager.

Bill says that the most challenging aspect of the tour for him as the Audio Tech was drawing a new room every day (that wasn't a travel day) and in some cases melding in-house PA with the tour gear and then hanging it all in a limited time span. On the lighting side, the challenge for Ania Dankow, John Bobeng, Tim Russel, and Brad Rooks was fitting a great big lighting rig in some rather tight venues.

The best aspect of the tour was the comradery and respect that developed in the touring crew as they worked out issues in every venue. The Clearwing and Chris de Burgh teams collaborated seamlessly, which made the hard work all that much more enjoyable. ♦

www.clearwing.com

House of Blues Enjoys **Continued Success** With HARMAN'S Soundcraft Vi Series **Consoles In Top Venues**

The House of Blues has 13 venues throughout the United States and is dedicated to offering the best in music and entertainment.

As part of this commitment, **HOB** has contracted Sound Image of Escondido to upgrade its front-of house mixing facilities with a combination of HARMAN's Soundcraft Vi4 and Vi6 digital mixing consoles in its New Orleans and Anaheim locations, and a Vi1 console in use at the HOB Mandalay Bay venue in Las Vegas.

"Saying that the tour sound business is competitive is like saying that LeBron James is a good basketball player," said Jason Schmidlapp of Sound Image. "Top-tier venues like the HOB know they have to keep up with the latest and greatest in sound reinforcement technology in order to stay current and desirable to artists and customers."

The House of Blues has been standardizing its sound reinforcement systems in order to be more accommodating to artists and attract a higher level of performers, which explains the decision to install the worldclass Soundcraft

consoles. "The Soundcraft Vi6 is a tour-friendly console and an industry standard," Schmidlapp noted. "There are times when acts will come through and I can see the look of relief on a visiting front-of-house engineer's face when he or she sees that they'll be mixing on a Vi6."

"Engineers are familiar with Soundcraft consoles and like the fact that they can get consistently excellent sound from venue to venue and even use their same console configurations and settings," Schmidlapp continued. "It saves time, makes life easier and reduces the stress of mixing a live show."

Sound Image completed the most recent House of Blues upgrade at

pictured below: The Bangles perform at the House of Blues in Anaheim, California.

the Mandalay Bay hotel, which is also home to the world's first installation of JBL's new VTX line array loudspeakers. The installation coincides with a 2-year residency by Carlos Santana, who is performing his "Greatest Hits Live: Yesterday, Today and Tomorrow" show through 2014.

In addition, the Houston and Boston HOB locations each feature a Soundcraft Vi6 at the frontof-house and monitor positions.

"The more consistency we can get in the sound reinforcement systems in House of Blues and elsewhere, the better it is for everybody—the management, the staff, the performers and especially the customers. It just makes practical and economic sense. ♦

www.sound-image.com www.harman.com





In the News



Venues

LANDMARK KANSAS CITY VENUE Gets the Full Renkus-Heinz Treatment

The Kauffman Center for the Performing Arts is the centerpiece of Kansas City's downtown revival. The 285,000-square-foot, \$413 million project links the city's downtown center with its landmark Crossroads Arts and Power & Light Districts, and is home to the Kansas City Symphony, Kansas City Ballet, and the Lyric Opera of Kansas City.

The two performance spaces - Muriel Kauffman Theatre and Helzberg Hall - were designed by architect Moshe Safdie. Both were created using modern, sound-isolating building-within-a-building construction; a foundation, walls, and roof surrounded by fully independent foundation, walls, and roof.

The 1600-seat Helzberg Hall, home to the Kansas City Symphony, offers seating in a semi-circular "vineyard-style" configuration that surrounds more than 270 degrees of the massive 2700-square-foot stage, placing no seat more than 100 feet away.

Consultants Engineering
Harmonics, whose team included
Senior Consultant Martin Van
Dijk, Associate Consultant Roer
Gans, and designer Russ Noble,
worked with Nagata Acoustics to
design the sound system, which
was installed by Clair Brothers.
With the venue's acoustics primarily designed for symphonic sound,
the hall essentially called for dual
systems - one for music, the other
for voice intelligibility.

The main performance system is centered around Renkus-Heinz ST-Series reference point arrays, with left and right clusters of ST4, augmented by ST-2M cabinets. Rear and side fills are amply covered with ST2-R and ST2-MR boxes, while TRX62H compact systems provide over balcony fills. A dozen PNX112 Subswoofers are built into the stage lip, while 72 Iconyx SSL drivers are built into a custom baffle inside the balcony for additional coverage.

The innovative voice reinforcement system utilizes three Iconyx IC16-5 digitally steered arrays. The three columns are arranged in a 360-degree configuration, with each column covering a 120-degree pattern. The "voice stick" is concealed in the ceiling, descending from its soffit inside the 100,000-lb acoustical reflector

canopy above the stage.

The massive, seven-story glass enclosed lobby was also treated to Iconyx systems to help with spoken word intelligibility, with three more Ic16-R arrays concealed behind a metal grille.

"The Iconyx definitely helped to focus the sound in a very challenging environment," says Ciair Brothers Project Manager Dustin Goen. "I don't see how it could have been done with any other kind of loudspeakers."



Video

XL VIDEO Adores the Stone Roses at Heaton Park

XL Video supplied 400 square metres of its latest Pixled F-12 LED screen – configured as 12 screens, ten of which moved – plus cameras, PPU and crew for the Stone Roses homecoming shows at Manchester's Heaton Park.

The F-12 screen – currently available only from XL Video – was specified by show director Paul Normandale, who has also been using it on Coldplay's current world tour. A nine camera IMAG system - mixed by Phil Woodhead - was at the essence of the visual look and feel for these concerts. Normandale and Woodhead have worked together on the Kings of Leon for some time,



and Normandale knew that Woodhead's trademark intelligent, raw mixing aesthetic would be ideal.

The video playback content was derived from various original artwork and paintings by guitarist John Squire, which Normandale commissioned video artist / producer Judy Jacob to animate. The video looks were all based on this unique material which was stored on a Catalyst media server system and output to the screens, together with six feeds from Woodhead's camera mix by Glen Johnson.

The key to the distinct blurring of the content and IMAG was the application of Video Dust, a new highly flexible DVE software optimised for iPad front end control and intuitive use.

The 12 screens dominated the wide vista of the performance area. Upstage was a rear letterbox strip of F-12 measuring 30 tiles wide by 5 high. Side stage left and right were two screens each, 10 wide by 5 panels high, and on the onstage edges of the front wings were another two screens a side, 9 panels wide and 5 high.

All of these moved into a series of different positions throughout the show on a Kinesys system, offering up a dynamic palette of different looks.

> At the very edges of the stage were two large portrait F-12 surfaces measuring 17 high by 11 wide.

Apart from providing maximum impact, one of the beauties of the screen set up was that the stark contrasty and largely monochromic **IMAG** images of the stage action could



be showing on the end screens, while more content driven mixes, merges and subtleties could be playing out across the rest.

The phenomenally bright F-12 provided an ideal surface and compliment to the stage and natural lighting elements of the show, 60 percent of which was

performed in daylight. The IMAG sources included three additional Sony HXC-100 HD cameras for Heaton Park including a pole-cam, which were added to the one touring with the band's festival rig, plus three Bradley Cam-Ball 2 robo cams, which were operated by Woodhead. Two mini-cams brought the total

of camera channels to nine for Heaton Park.

Woodhead used a standard XL Video Kayak mixer switcher and applied all the Video Dust treatments before sending his feeds into the Catalyst. •

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Jean Lariviere Rejoins **HES** as Regional Sales Manager

Industry veteran to support Canada, select U.S. territories

Jean Lariviere has rejoined entertainment lighting manufacturer High End Systems (HES), part of the Barco group, in a new role as a Regional Sales Manager. His assignment includes sales development for the Canada region and also select U.S. key business partner accounts. He is based at the Austin, TX headquarters.

For the past seven years, Lariviere worked with equipment brokers SHS Global, where as CTO he was responsible for sourcing product and also client technical

Lariviere previously worked at High End Systems from 1994-98 as a product support specialist on the Studio Color automated wash luminaire development team. Lariviere says "the product innovation developed from HES co-founder and CTO Richard Belliveau's patents motivated me to return when offered the job. When I saw a demo of the recent products - the intellaspot, TechnoArc and TechnoSpot, along with the DLV - I caught the fever, and I'm excited to be onboard; during my hiring process, I also gained an insight and overview of the new innovations



me to come back."

High End Systems' sales team was another incentive. "I am excited and honored to rejoin High End Systems - it's the friendly 'A Team,' my associates in Austin unquestionably care about their customers and I have a great feeling about this!"

Barco Lighting Systems CEO Bill Morris says, "We are excited to have Jean return to HES. In the past 12 years since Jean first ventured out on his own, he has started and successfully run a popular used gear business that has expanded his networking and understanding of the lighting business on a worldwide basis. That experience will be invaluable to us as we move to expand our own presence in every region of the world starting with North America." ♦

L-ACOUSTICS Bolsters Focus on Installation Market with Two Key **Appointments**

L-ACOUSTICS further strengthens its commitment to the North American fixed installation market by announcing the appointments of Dan Palmer as National Manager of Installation **Projects and Andrew** Nagel as Head of Application for the US Installation Market.

Palmer, currently in his eighth year as a member of the L-ACOUSTICS US Team, is experienced in both the technical and business aspects of professional audio having spearheaded numerous installation projects for L-ACOUSTICS

ranging from sports venues and themed entertainment to houses of worship and performing arts. In his new role, he will focus on developing strategic relationships for L-ACOUSTICS and various market development activities across multiple segments of the US installation market.

Andrew Nagel embraces an expanded nationwide role as Head of Application for the US Installation Market after completing several high profile installation projects for L-ACOUSTICS worldwide. In his new leadership capacity, he will be responsible for all aspects of sound design assistance and solutions, providing on-site support for challenging projects, creating potential system models, and conducting technical trainings and product demos for L-ACOUSTICS Certified Providers.





Cédric Montrezor, Director of Application, Install states: "Given his proven track record as a talented A/V designer, I am convinced that Andrew will successfully support our Certified Provider install network and the consultant community in their projects. As for Dan, his exceptional commitment to L-ACOUSTICS and dedication to custom-

er satisfaction will be instrumental in the development of our activity in the various segments of the US fixed installation market."

"L-ACOUSTICS has recently won many accolades in the installation sound market for its dedicated high performance product line, but also for its outstanding customer support and design expertise," adds Laurent Vaissié, General Manager for L-ACOUSTICS US. "Dan's unique blend of business-savvy and technical knowledge makes him the natural choice to expand our market awareness and development efforts, while Andrew's formal technical background and unique expertise in complex sound design will provide exceptional support to our growing network of system integrators and consultants." ♦

Nutritious... yet delicious.



Sensaphonics Hires **New Sound Guy**

Audio engineer Joe Tessone joins Sensaphonics in technical advisory role.

Sensaphonics, the in-ear monitoring technology leader, is pleased to announce the hiring of Joe Tessone as the company's new audio engineering consultant. In his role as Sensaphonics Sound Guy, Tessone will advise customers on the implementation of in-ear monitoring, handling questions ranging from the basic to the highly technical, helping ensure a positive IEM experience.

Joe Tessone, 27, is a 2007 graduate of the Audio Arts and Acoustics program at Columbia College Chicago, with special-



ties in Audio Design and Production. In addition to his duties at Sensaphonics, he owns a commercial studio. Mystery Street

Recording Company, and is the Audio Archivist at the Old Town School of Folk Music in Chicago. He is also a performing musician, most recently as singer/songwriter for the eclectic punk band Behold!, and as banjo/ukulele player for an Americana music group, the Rust Belt Ramblers.

Tessone is also passionate about occupational health risks and workers' rights, which is a perfect fit with Sensaphonics' focus on hearing conservation as an industry-wide issue among both

engineers and musicians. "I'm a big believer in healthy hearing. Our ears are the most important tools we have. Just as it would be crazy for a welder to work without eye protection, it is just as dangerous for us in the music industry to work without protecting our ears," he says. "I own two pair of custom Musicians Earplugs, the ER-15, and always have one with

Sensaphonics President Michael Santucci commented, "Having a sound engineer on staff is a big help to our customers, and Joe Tessone really stood out as the obvious choice. Being a performing musician with strong engineering skills and customer focus means that Joe has the breadth of knowledge and perspective required for the role of Sound Guy."

Joe Tessone views his new job as a natural next step in his personal development within the music industry. "Working with the industry leader in both in-ear technology and hearing conservation is a great opportunity," he says. "One thing I learned at Columbia College is that all of us in the audio industry really need to support each other. Being the Sound Guy at Sensaphonics will allow me to share knowledge and solve problems for other musicians and engineers. I'm very happy to be here."

Tessone is available to answer IEM questions via phone and email. For more information or to contact him directly, please visit www.sensaphonics.com and click on "Ask the Sound Guy." ♦

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Musion Systems Makes Reality Questionable



BY RICHARD BENNETT

orking on a live tour is, to a certain extent, a modern day version of running away and joining the circus, and like any circus the industry has its clowns, tamers, strong men and stage illusions. From Gene Simmons fire-breathing to Alice Cooper's guillotine, the entertainment industry is littered with that special little visual, which gives a show its 'wow' factor.

> When deceased rap star Tupac Shakur seemed to actually appear on stage in person, more than 10 years after his passing to perform two songs at last year's Coachella, it signaled a significant shift in the future of live stage performance, and put a small British company, Musion Systems Ltd. at the forefront of a technical revolution.

"We had done some 3D projections with Madonna and Gorillaz at the 2006 Grammy's, where we had the Gorillaz cartoon characters performing, then Madonna, appears from underneath the stage, walks around the band including behind them,



giving the appearance that they are real. Then suddenly, another Madonna appears on a different stage and the first version explodes into nothing," says Musion **Director James** Rock.

"The real game changer was the Tupac appearance; we saw a spike of interest from the music industry after that happened," continues Rock.

Tupac's image was created by an American company called Digital Domain, with AV Concepts supplying the platform using the Musion Eyeliner™ system.

"The amazing thing about the Tupac content was that none of the image was original, it was all digitally recreated, so they in fact made a virtual Tupac. If you hadn't seen this before, it really grabs you on an emotional level," he adds.

The technical concept of the Eyeliner™ system is based on an old Victorian theater trick perfected by Professor John Henry Pepper and Henry Dricks in 1862 known as Peppers Ghost. The Victorian version consisted of a large thick plate of glass, angled so it went over the orchestra pit at a 45 degree angle. A man would then lie on his back on a black sheet laid out on the floor, out of sight of the audience, and by lighting him up it would reflect his image through the glass on to the stage. Due to the restraints of lighting and the thickness of glass in those days, the images were very poor, and would only work if the audience was looking straight onto the stage.

The Walt Disney Corporation uses a similar method on its Haunted House ride, by using a sheet of glass 100 feet in length, which was low-loaded into place and then the ride built around it. But even that version still has its limitations.

In 1995 the basic principles of Peppers Ghost were picked up and developed by Uwe Maass, who was working in lasers and event delivery at the time. He quickly figured out that if something could be found that had better reflective properties and was easier to work with, the potential to execute the illusion on a much bigger scale would then exist. Maass sourced a manufacturer of what is essentially heavy cling, film-clear foil, almost like lighting gel, which was produced onto large rolls. This allows for large systems to be put in place that are low cost, easy to transport, and quick to set up.

At the same time, visual technology was moving toward High Definition imaging and video projection was starting to get brighter and more reliable. With these three events converging all at the same point, the

stage was set for a technical breakthrough. Rock saw the advantages of the system and became a licensee of Maass's system, creating Musion Systems Ltd.

"Once we had the Eyeliner™ system, the next step was quickly getting our production content values together. The first band we worked with of any significance was Damon Alban's Gorillaz and their 2005 performance at the MTV European Awards, which was in an eight to nine thousand seat stadium in Portugal. The bands virtual cartoon characters performed on stage alongside two real live musicians from De La Soul. The next day Disney called us and said, "Who are you and how have you done what you do?" That really landed us on the world stage," says Rock.

Like anything new, there was initially a certain level of skepticism about the system, particularly within the rock n' roll market.

"There's a lot of old school people in the business who think they know things. We are trying to gently bring them to the point of actually wanting to work with this because it's a bit of a game changer. There was definitely an education process involved with a lot of people in the music industry, as far as convincing them of the system's possibilities. People need to see it for themselves, and that's when they will have a paradigm shift of mind to embrace this," says Rock.

It wasn't long before the record companies caught on to the advantage of the EyelinerTM platform within the context of promo work and getting artists to where they couldn't physically appear. One such event involved a product launch featuring Mariah Carey, where she appeared on stage in five different European cities at the same time.

What separates the Eyeliner™ system from previous holographic type systems is how the images are pre-recorded, as Rock



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explains: "For the living performers, we film using a normal camera to create a 2D image. When we first started we were using 7000 ansi lumen video projectors, but then we quickly started using projectors that were three or four times brighter, the brighter the image the better it looks. Combine that with the HD and you get a shaper image."

"We shoot onto a black background, so we are projecting a lot of black. When you project that into a dark place, the black doesn't show up. The art is in lighting the talent slightly differently from a normal video shoot. What you want to do is get the back lighting right so it creates a sense of depth to the image, which gives it that solid real person look. Other than that it's just positioning the lights in the right place and at the right level of brightness. With the prerecorded images, you can even have them filmed with spotlights on them as they move around, which again gives more depth and credence to the image," says Rock.

This method was used by Motley Crue's production design team of Robert Long and Sooner Routhier, for the bands recent Las Vegas residency.

"Robert and I wanted to elevate Mick's [Mars] solo and decided that the hologram approach would be the best way to do it. I mean, how often do you get to see Mick Mars rip through a dueling guitar solo against himself in triplicate and then blow himself up?" laughs Sooner.

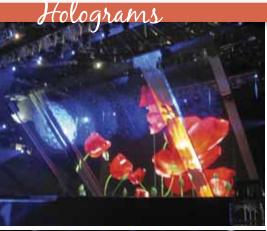
When it came to installing the system for the shows, the production team did come across a number of challenges in implementing the system into the stage set, as Sooner explains:

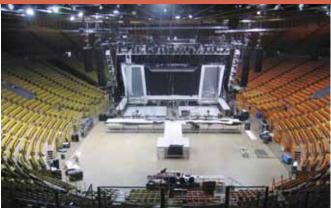
"The size of the stage was the biggest obstacle. It was a logistical nightmare for us to put a foil across the entire stage so we had to have two custom carts made by Las Vegas based SGPS to project the images on. The two hologram versions of Mick sat stage right and stage left of a center riser that the real Mick stood on, SGPS and Musion did a

















great job working together to make everything happen for us. We also had very little time to be able to pull everything off as we loaded into the venue a day and a half before the first show. There was virtually no time to be able to rehearse and perfect the timing of the solo. Luckily we had a great team of people between Chaos, SGPS, and Musion to be able to pull it off."

When it comes to the Digital Resurrection performances, the creation of content becomes more challenging, as Rock explains.

"One of the biggest limitations when we produce images of deceased performers is the quality of the old pre-recorded footage. So we work with those images in one of two ways; the old fashioned way is to find a performance where the talent has been recorded with a locked off camera pointing straight at the them, but it does need to be of a high quality. Where original quality format footage is low grade, we can take the portion of the video which is the artists' face, and then superimpose that onto a real live actor dressed as the artist. So you have 90 percent high-def image but your mind fills in the gaps to make you believe it's a complete high-def performance," says Rock.

Like all new technology, the Musion Eyeliner $^{\text{TM}}$ system currently has some limitations, although as the technology progress, this will disappear.

"The first one is daylight, which can be a problem. The lighting can not compete with the sun, so you can't project a clear image. However, once it starts getting dark you can. We have used it at outside shows and it has worked well. The other one is the foils themselves, which act like a large membrane, so if you have any wind the image will vibrate. As the technology moves on we will start experimenting with small holes in them to let air travel through it, or sonically welded foil, although the system is more durable than we give it credit. The technology in this market is not going as fast as you might think, but it's all going in the right direction for making this publicly accessible," says Rock.

Most of these problems can and have been overcome by the production teams of the vari-

ous artists who have so far taken the system on the road. A recent Sarah Brightman tour saw retractable projection screens built into the stage set. For Celine Dion's run of shows in Las Vegas, a big projection screen was lowered in from the lighting rig during her duet segment. Each night she sang a duet with a different artist including Stevie Wonder and a 1968 version of Elvis Presley. On one night she even sang with herself, the real Celine, singing from a B-stage while the projected image was singing on the main stage.

Another facet to the Eyeliner™ system is the ability to project live action as well as prerecorded imagery. This is achieved by using live video link ups, so instead of seeing a projected image, you would be able to see a projection of a living person in real time. It is this aspect which could appeal to a number of bands and artists. Instead of going out on the road for a long and expensive tour, they could perform one show in one place, which could be simultaneously projected across the world in any number of venues, effectively doing a tour in one night.

While creating images of live performers via pre-recording performances for projection is relatively easy, as with the Tupac project it's the deceased celebrities coming back from the dead to perform once again that could have the biggest impact on the industry.

"There is undoubtedly an ethical issue involved with the Digital Resurrection artists. Before the Tupac thing happened we had done a couple of other things in the public consciousness and there are going to be some people that it's really going to appeal to, and there are going to be some that it's going to be a bit unnerving for. But I think that's where giving the dead artists estates the decision as to how much content the public would see in a live performance is key. The view I take on it is who am I to decide how far this goes. That decision is down to the consumer. I am sure there are people who would pay to see Frank Sinatra, Elvis Presley or any other deceased artist perform on stage once again. In my view, I don't think it will ever replace a live performance, but it will become a major part of any live show, " concludes Rock. ♦



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Entertains with High End Systems

he New Line Cinema film adaptation of the "Rock of Ages" Broadway musical opened June 15 with a star-studded cast, hits from the 1980s, and High End Systems, a Barco company, products in the mix. The rock and roll romance of small town girl Sherrie and city boy Drew, meeting on the Sunset Strip in search of their Hollywood dreams, is told through the music of Journey, Foreigner, Def Leppard, REO Speedwagon and more, much of which is recreated in performances in the film.



LD Mike Baldassari (www.mikeo-matic.com), who has designed the theatrical lighting and concert scenes for a number of films including "Nine," "Joyful Noise," "Sex and the City 2" and more, was tasked with handling the live stage performances in this production. In his rig full of assorted lighting, he chose to include 4 High End Systems SHOWBEAM 2.5 automated luminaires. However, to run all the performances, he specified the High End Systems Road Hog Full Boar console for Programmer Paul Turner. Larry Thomas at Christie Lites supplied the theatrical lighting equipment for the film.

Baldassari needed to recreate concert lighting from 1987, so although he chose some new technology, such as the SHOWBEAM 2.5s, which were not around then, he hid the fixtures physically from the camera, allowing their beams to shine forth.

"I never turned on the LED ring

on the SHOWBEAM 2.5s," he said. "But I used them on the upstage floor in the arena/stadium sequence to make beams come over the back of the backline. The fixture bases are masked by the walls of the Marshall amps stacks. They're featured specifically during the Journey song, 'Don't Stop Believin.' "(seen at the 25 second mark in the trailer. http://youtu.be/jFiDeuf-hxSY)

Baldassari describes how the SHOWBEAM 2.5s carry a look throughout the end of the film using their twinbeam effect: "The song 'Don't Stop Believin' is the finale of the picture. Dramaturgically, much of the story is wrapped up in that one iconic Journey song. Additionally, the song travels a great distance visually. It starts onstage at the Bourbon Room on the Sunset Strip, then transitions to an Arena, then to Dodger Stadium, where a helicopter shot picks up and carries us over the Hollywood Sign to the Sunset Strip where a Sky-Tracker sweeps the lens to end the film. I had to find a way for the lighting to carry across all of those elements - which when you consider the club-to-arena-to-stadiumto-helicopter journey - it's a lot of visual ground to cover, so it needed a big idea.

"To do that, I started in the club with a gobo in the moving lights to create a multiple beam look. Very simple - just split beams coming out of the lights. Then, in the arena section, I had the same gobo created for the moving lights I was using in that part of the scene. As the camera pulls out toward the stadium shot, it reveals the SHOWBEAM 2.5s coming over the top of the Marshall Stacks - doing their signature 'Twin Beam' function and twirling. There



is simply no other fixture that can do that, at the intensity needed, to make a difference in the big wide shot of an arena/ stadium. Of course, there weren't twirling beams of light in 1987 - but that feature visually ties the lighting to the helicopter shot that takes us out of Dodger Stadium, over the top of the Hollywood Sign and to the beams of the Sky-Trackers on the Sunset Strip."

He continues, "When I first came up with the idea, I asked the Gaffer, Tony 'Nako' Nakonechnyj, to please have Sky-Trackers working on the street next to the Bourbon Room for all of the exterior shots of the building. He liked the idea and made it happen. Additionally, in early conversations with the Director Adam Shankman, he wanted our version of the Sunset Strip to be a place where there's 'an opening every night.' We completely embraced the idea, and the SHOWBEAM 2.5s, with its twirling twin-beam, was perfect for part of the visual transition sequence."

Baldassari chose the Road Hog Full Boar console for various reasons having to do with filming. "One of the most important things when designing a film is the continuity of the lighting take to take," he explains. "If the lighting doesn't match between takes, the director will have difficulty in the editing process - which for the most part, is months after principal photography has wrapped, so there's no going back to get a shot where the lighting isn't right. The Road Hog Full Boar works extremely well with timecode, so I worked with the Music Supervisor Matt Sullivan to make sure all of the mixes we were shooting to included timecode tracks. Additionally, my programmer Paul Turner is a master of editing shows with a timecode element."

He adds, "The other critical thing when it comes to work on film is the ability to change levels very quickly. Because of the ability of the Road Hog Full Boar's Playback Wing, we were able to add many inhibitor subs to control small parts of the lighting system. If something was too bright to the camera, we could simply inhibit that part of the lighting system and not touch any of the cues." ♦







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Prelude to a Hot August Night

In the last 40 years few people have toured more consistently than Neil Diamond. "I often say that this show's been going on for 40 years, we just take long breaks," says Stage Manager Richard Bray. This particular leg of the 40 year run is building to a climactic repeat of the 1972 "Hot August Night" performance at Los Angel es' Greek Theatre.

This show changes dramatically every three years. This is a minimalist set, which is in stark contrast to some of the extreme sets we've done in the past. - Set Designer David George Jason Temke (Assistant Road Mgr), Melissa Forster (Pilates/Trainer), Michael Weiss (Tour Mgr

& Production Supervisor), Craig Yun (Road Mgr)

Saying that the tour has been ongoing for 40 years can be a bit misleading. As Set Designer David George says, the set has undergone several significant changes over the years, "This show changes dramatically every three years. This is a minimalist set, which is in stark contrast to some of the extreme sets we've done in the past. We've had the entire band on nine elevators that raised and lowered every member of the band individually. We had the entire band covered on one tour where you couldn't see them. We've had programmable platforms on a raked stage where the band could move up and down and left and right and we could reconfigure them. We've even had turntables."

With that array of complexity in his wake, the design team wanted to simplify the look for this run. With the exception of a mid-stage elevator through which Diamond entered at the top of the show, there is no other such automation in the stage. Another goal of the production was to drop the number of trucks from the last tour from 12 to 10. This not only led to a more simplified look, but also a smaller footprint. The challenge with that was, while the stage – built by All Access US – got smaller, the band didn't.

The entire 14 piece band (three female backup singers, four horns, two guitars, two keyboards, drums, percussion, and bass) lives well upstage of the apron upon which Diamond plays most of the night, except when he enters through the aforementioned elevator. Bass and drums play together on an upstage right riser, keys on a center riser and guitars are on a stage left deck with percussion on a riser upstage of guitars. All of those risers are placed upon another large riser area that makes up the mass of the footprint of the stage that steps down to the apron, which overhangs the 60 foot wide main stage on each end by two feet.

With all of this going on, the job of mixing this show would seem to be full of challenges, but Sound Designer/FOH Audio Engineer Stanley R. Miller has been mixing this show so long (since 1967) that he has time to help run his Inn in Big Bear Lake, California. "I do all the paperwork myself. I see every reservation. I see every ticket that goes through our restaurant." However, that speaks more to Miller's organization skills than the seemingly "simple" task of engineering this show as that task is nothing like "simple."

Before speaking about how he gets the job done, Miller spoke to what he considers the real secret of making it happen, "You know what? I have a great crew. In fact, on this tour I have the best crew I've ever had."

The makeup of the audio crew on this tour is an interesting blend of personnel. Because the tour's audio vendor, Firehouse Productions, only provides stacks and racks and everything else comes from Neil Diamond's inventory. Similarly, only three of the



Bernie's job mixing monitors is almost overpowering, over the top. It's very difficult and he's very good at it. He's a recording engineer and a math engineer. He's really good at what he does.

- Sound Designer/FOH Audio Engineer Stanley R. Miller

seven audio technicians come from Firehouse. Miller mixes the show on a Yamaha PM5D with only 40 inputs and very little outboard processing. Monitor Mixer Bernie Becker also drives a PM5D. For the uninitiated, the logic in the control and processing gear being owned by the act is to circumvent setup time on the front end of the tour. According to Miller, what makes this system more complex than one would think at first blush, is the fact that the show is running four Avion digital networks on stage because some of the band members prefer to mix their own [in ear] monitors.

That is pretty important given the complete absence of anything with speakers on the stage. No monitor wedges. No guitar amplifiers. Indeed, the only acoustic devices on stage are percussion instruments (drum kit and percussion section).

While getting everyone on ear monitors was a big step toward easing the load of mixing the show, Miller gives high praise to Becker for facing a tough job, "Bernie's job mixing monitors is almost overpowering, over the top. It's very difficult and he's very good at it. He's a recording engineer and a math engineer. He's really good at what he does."

There isn't much in the way of video on this production in contrast to most other tours on the road. There are no big LED walls presenting content and IMAG directly upstage of the show. However, Chaos Visual Productions does provide satellite projection screens that delivered IMAG all night and at one point, content (including images of Diamond's grandmother) was put up on the screens for the song "America".

With all the negative space put into play by the black drape upstage, long time Lighting Designer Marilyn Lowey put the classic tools of stage lighting to work with outstanding effect. "The approach that I take on this show is that the lighting merely provides a vehicle for Neil's music," Lowey explained.

The system (provided by Upstaging) consisted of 244 fixtures (48 Coemar Parlite LEDs, 48 Martin Mac 2000s Profiles, 52 Martin Mac 2000 Wash-Pc Lenses, 28 Martin Mac III Profile's, 16 Clay Paky Sharpys, 6 Clay Paky Alpha Beams 300, 16 Robe-Spots 1200 AT, 6 Small Format Pars, 8 Atomic Strobes, 4 Coemar 4' Striplight LED 35 degree and 2 Truss Spots). It had the ability to hit like a sledgehammer as well as tickle like a feather, which came in handy on a show like this one wherein several songs start out softly and finish by tearing the roof of the place. "If the lighting is in-sync with the music and grows and retards with it, that adds to the emotional impact of what Neil is trying to do," Lowey explained.

During the very gentle "Morningside," Lowey back-lit Diamond with nine instruments from around the rig and each instrument was colored with a different shade ranging from off white[ish] to pale salmon[ish]. The look was as complex as it was simplistic and the result was nothing short of mesmerizing. Some of the dramatic angles in the look are achieved through the use of six Martin MAC III Profiles flown five feet below the upstage truss 8.5 feet apart. Because there is a truss spot centered on the truss the onstage, MAC III's are positioned 7' 8" off the center line.

Six more MAC IIIs are placed on two 40 foot sticks (three per side) that angle back toward the center of the



ARTIST REPRESENTATION Azoffmusic Management BUSINESS MANAGEMENT Gelfand, Rennert & Feldman TOUR ACCOUNTANTS Gelfand, Rennert & Feldman LIGHTING SYSTEM Upstaging TOUR RIGGING Stage Rigging Inc. STAGE CONSTRUCTION All Access US SOUND SYSTEM Firehouse Productions VIDEO SYSTEM Chaos Visual Productions FREIGHT FORWARDER ROCK-It Cargo RADIOS: AAA Communications US TRAVEL AGENT Altour International US PRINCIPLE TRANSPORT Silverline Limo TOUR MARKETING MERCHANDISE WORLD TOUR SOUVENIR BOOK DESIGN: Smog Design, Inc. MERCHANDISE F.E.A. Merchandise TRUCKING Egotrips Inc. AIR CHARTER: Altour Air VIPTICKET PACKAGES VIP Nation TOUR SOUND SUPPORT: AKG, JBL Professional, Yamaha Pro Audio SIGMET CORPORATION: Sam Helms





Ryan Nicholson (Lighting Director), James Fredrickson (Lighting Tech), Seth Rapaport (Associate Lighting Designer), Matthew Bright (Lighting Tech), Marilyn Lowey (Lighting Designer), Kevin Royan (Lighting Crew Chief), Brian Carico (Lighting Tech)

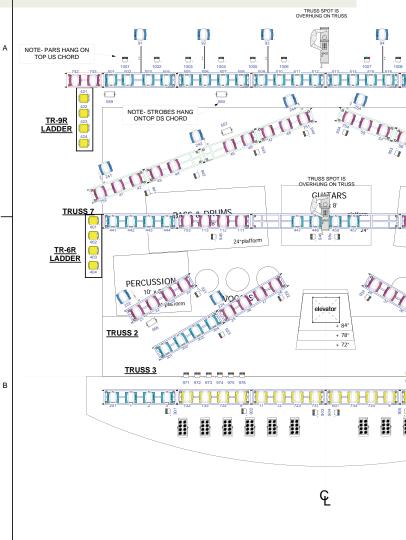
upstage point from the ends of a midstage truss. They are flown two feet below the trusses. There are two more angled trusses downstage of the midstage truss that each have a single [two foot] under-hung MAC III. Both the midstage and upstage trusses have torms coming off the ends loaded with four Clay Paky Sharpy's.

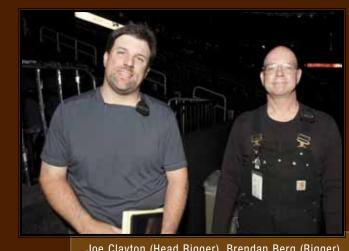
All put together or selected in asymmetrical combinations, this rig creates a magnificent look.

An example of the dynamic range of both Neil Diamond's music and Marilyn Lowey's design is found in the iconic "Sweet Caroline", which starts off softly. But because the song is so broadly known, there is enormous energy in the audience from the very first note. As the song progresses Diamond [and his band] drop the intensity hammer and Lowey's design, which is driven by the ever capable Lighting Director Ryan Nicholson, keeps perfect pace with the emotional intensity Lowey spoke of until both come together in the chorus to transform anticipation into almost tactile energy with an often times deep vibrant color pallet. This also happens in several other pieces such as "Brother Love's Traveling Salvation Show," and most vividly "Holly Holy."

The design was programmed by Associate Lighting Designer Seth Rapaport, who isn't shy when discussing how it is to work with Lowey, "Working with Marilyn is always a very special experience for me. I've been programming for her for many years, and I can usually anticipate what she wants, but at the same time she keeps me on my toes creatively. It's very collaborative; we go through a lot of revisions of the plot, experimenting with hanging positions and different types of fixtures. I send her a lot of little renderings so we can look at the plot for different perspectives. When it comes to programming, it's also a very exciting and rewarding experience. Marilyn is always willing to look at something new. She caught on to the power of pre-visualization years ago, and it's really paid off for us. We find a lot of times, what looked good in CAD needs a little tweak in pre-viz, and we can very effiWorking with Marilyn is always a very special experience for me. I've been programming for her for many years, and I can usually anticipate what she wants, but at the same time she keeps me on my toes creatively.

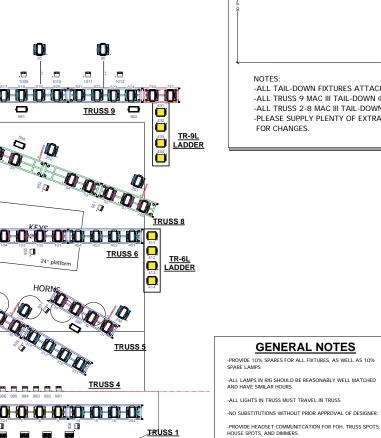
- Associate Lighting Designer Seth Rapaport

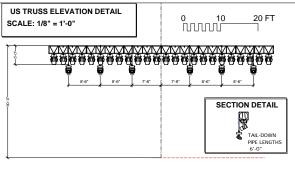




Joe Clayton (Head Rigger), Brendan Berg (Rigger)







NOTES:

-ALL TAIL-DOWN FIXTURES ATTACH TO US SIDE OF TRUSS

-ALL TRUSS 9 MAC III TAIL-DOWN @ 6'-0"

-ALL TRUSS 2-8 MAC III TAIL-DOWNS @ 2'-0"

-PLEASE SUPPLY PLENTY OF EXTRA PIPE @ VARIOUS LENGTHS FOR CHANGES.

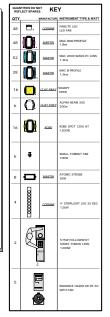
GENERAL NOTES

-PROVIDE DIMMING AND DISTRIBUTION FOR ALL NEEDED

-PROVIDE HEADSETS FOR LIGHTING & STAGE MANAGEMENT

-ALL TRUSS SPOTS ARE OVERHUNG ON TRUSS

-ALL TRUSSES TO BE BLACK -ALL FIXTURES TO BE BLACK







В

Neil Diamond US Tour 2012 Various US Plan Light Plot

Neil Diamond

NEIL DIAMOND





Matt Lindstrom (Video Tech), Dave Jacobs (Video Tech), Jon Huntington (Video Engineer), Jerry McReynolds (Video Director)



front: John Drane (Sound Tech), Jonathan Melton (Sound Tech), Tyler Clapp (Sound Tech), Chris "Radar" Russo (Sound Tech), Greg Lopez (Sound Crew Chief) back: Scott Lawhead (Sound Tech), Stanley R. Miller (Sound Designer/Audio Engineer), Bernie Becker (Sound Engineer/Monitor Mixer), Sam Helms (Audio Consultant), Jeff Child (Sound Tech)

ciently solve problems before we even get to rehearsals. When you are working with someone as talented as Marilyn, you are always learning!"

This year marks the 40th anniversary of the Hot Summer Nights shows at LA's Greek Theatre in 1972, which is widely regarded as the event whereupon it all started for Neil Diamond's incredible run. Since then, Diamond has never really slowed down nor have the people who've stayed with him over the course of four decades. According to Tour Manager/ Production Supervisor Michael Weiss, the people who have come onboard the team over the years have found a home. "There aren't really any big challenges on this production because everyone works as one team even though crew people work for various companies. Most of the time, everyone that is out here are people who want to come back, so our crew doesn't change that much. Because of that it's a team. It's not 'I do lighting' 'I do sound'. It' more like, 'Oh you need help with that? Let me help you.""

The ironic part of this tour is that in building to the big climactic finish at the Greek Theatre the show has to be all but completely redesigned in order to fit into 83 year old icon despite it 2003 facelift. "It's almost like a

one-off," Wiess admits. "The roof is so small that we can't put our system in. We can't use our stage."

That being said, we didn't speak to a single person on the production who wasn't excited about seeing Neil Diamond go back to where it all started on a hot August night in 1972.

Richard Bray seemed to put it best, "This is about getting Neil to the Greek on time." ♦

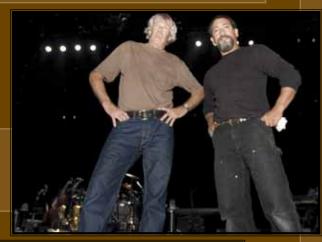




Tour Security: Pete Kepes, Tom Gorlewski (Security Director), Joe Deschane, David Gorlewski



Caterers: Zack Tickler, Rachael Hall (Catering Crew Chief), Todd Payden, Skot Harris, Jessica Isaac, Melanie Frederick



Carpenters: Jay Fortune, Sal Marinello



Tour Manager & Production Supervisor -

2012 WORLD TOUR CREW

Michael Weiss Sound Designer/Audio Engineer -

Stanley R. Miller

Lighting Designer - Marilyn Lowey

Sound Engineer/Monitor Mixer - Bernie Becker

Stage Design - David George

Lighting Director - Ryan Nicholson

Associate Lighting Designer - Seth Rapaport

Costume Design - Margi Kent

Music and Recording Coordinator - Sam Cole

Road Manager - Craig Yun

Assistant Road Manager - Jason Temke

Tour Accountant - Mike Yanosick

Security Director - Tom Gorlewski

Tour Security: David Gorlewski, Pete Kepes,

Joe Deschane

Production Coordinator - Kari Stephens

Personal Assistant to Neil Diamond - Laurel Carini

Production Assistant - Zack Murphey

Stage Manager - Richard Bray

Assistant Stage Manager - Jeff Wendt

Percussion Tech - Dave Wright

Keyboard Tech - Peter Danilowicz

Guitar Tech - Kit Charlton

Equipment Tech - David Rapp

Carpenters: Jay Fortune, Sal Marinello

Wardrobe Master - Thomas Wells

Grooming & Make-up: Darla Albright,

Natascha Ladek

Personal Trainer - Mita Forster

Choreographer - Donna Tutt

Lighting Crew Chief - Kevin Royan

Lighting Crew: Daric Bassan, Matthew Bright,

Brian Carico, James Fredrickson

Head Rigger - Joe Clayton

Rigger - Brendan Berg

Sound Crew Chief - Greg Lopez

Sound Crew: John Drane, Jonathan Melton, Ron

Haines, Scott Lawhead, Jeff Child, Chris Russo,

Tyler Clapp

Video Director - Jerry McReynolds Video Engineer - Jon Huntington

Video Crew: Dave Jacobs, Matt Lindstrom

Personal Assistant to Neil Diamond - Laurel Carini

Production Assistant - Zack Murphey

Merchandise: Bruce Fingeret, Kelly McDonald

Live Nation Tour Representative - Mark Stolze

V.I.P. Ticket Packages - Ann Vetter

Catering Crew Chief- Rachael Hall

Catering Crew: Melanie Frederick, Zack Tickler,

Jessica Isaac, Skot Harris





MARILYN LOWEY

Seeing Light as Scenery

BY MICHAEL A. BECK

arilyn Lowey is one of the very few high profile female lighting designers in the industry. However, that is not something she chooses to see as anything more than a fact of the way it is. Instead, she focuses on a successful career not only as a lighting designer, but also as a fine artist. Her work is bold and vibrant when needs be and subtle and efficient when loud is contraindicated. She is proud of her work and those who work with her are proud to stand in her company. Maybe it's because of the passion she has for her work that would make her become tearful when discussing the moment she saw the light and learned to see. Maybe it's that she puts up great designs that anyone would love to work on. Maybe it's because she's simply a nice person to be around. Whatever the reason, it was a pleasure to sit and chat about it all. We invite you read along and share in that pleasure...

The approach that I take on this show is that the lighting merely provides a vehicle for Neil's music.

- Lighting Designer Marilyn Lowey

How did it occur to you to become a lighting designer?

It was time to go to college and I knew I wanted to do something in theater. I applied to a couple schools that had good theater departments and I was fortunate that I was accepted into Emerson in Boston. I was a design and acting major. I was not a very good actress and I was much better at design. I didn't have much interest in costumes and I was not very good at drawing and lighting just kind of captured me. It intrigued me because it had the artistry and it satisfied my technical and scientific interest I had. After a couple years, I dropped acting because it was more therapeutic than anything, and that was it. I was just doing lighting. I did every single thing I could. I worked at a lighting company - Tom Fields Associates - which is no longer around. I used to clean cables and order transformers and pack up road boxes for different tours that were going out on the road and I learned the trade. In the summer I would work summer stock. I was constantly working in the business - in the craft - to understand it.

What happened after you graduated from Emerson?

I knew I needed a grad school because I didn't feel that I was ready to go to New York or L.A. I applied at Carnegie and I knew I got accepted during the interview. I spent two years getting a Master of Fine Arts at Carnegie, which was fabulous because there were five people in my class and everyone has gone off and been extremely successful in their own discipline. One very important thing about Carnegie is that you learn everything about the theater. They don't put you into acting but you learn directing, set design, painting, everything that is involved. You come to understand how light effects it and how it effects light and how it all works together. Then I was selected for what is called OSITT, which is the Over Seas Institute of Theater Technology. There were 10 students taken from the United States and there were professionals who were also selected.

How many students were selected from Carnegie?

I was the only one. We went to London; it was actually London, Amsterdam, Prague and back to London. It was about two weeks over Christmas and New Years. In London they took us all around backstage at theaters and we talked about it. We had lunch with Jo Mielziner. How about that one!

It was mind blowing I think Alan Adelman taped the lunch. I need to call him on that. Anyway, we then went to Prague and were part of a student delegation. We met Joseph Svoboda, Ming Cho Lee, Gil Helmsley, Jo Mielziner, Pat Zipprodt, Ed Cohen, and Joel Rubin from Kliegl. It was all the 'big wigs'. Then we came back to London and we were sitting in the lobby and they wanted us each to talk about what was important to us from the trip, and at that moment I realized that lighting was learning how to see. I put all together at that moment. And that was it.

When was this?

ML: I hate to mention dates, but it was in the late seventies. I didn't know I was going to say that. Nor did I know I had learned that, but it was pretty amazing. From that point on, I realized that I could light anything because I'd learned how to see. I knew what I was looking at and on a stage and if

something didn't look right, I could say instantly what was wrong. I could correct it. That is one of the major reasons why I can work so fast.

Where did you go from there?

On the trip I connected with Gil Helmsley who was teaching at the University of Wisconsin in Madison. He was working at the Met in New York and he was working on Broadway. He invited me to come to Madison and teach with him and then I would go and assist him in New York. I went to Wisconsin and I taught with him, but I didn't go to New York. He took his students and I ended up teaching his classes. I figured I would make the most of my time and I got into USA in Chicago. After that year, I moved back to New York like every other starving artist and worked my butt off. I was never afraid of working hard and I knew I was driven enough and I was going to succeed. I connected with people who went to Carnegie, I made some cold calls, and within a few weeks I was designing two shows off, off, off Broadway and I was assisting on Broadway.

How long did that last?

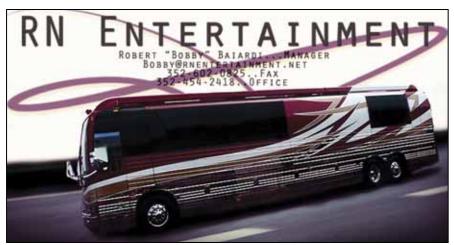
After a couple years I decided I really didn't like Broadway. I didn't want to wait 10 years to get a show and Broadway didn't want into the technology of the day. They didn't want to buy memory consoles. They didn't want to get rid of piano boards, whereas in the entertainment industry, they had money. They were buying computer consoles and much better electronic dimmers as the technology was coming along. We were looking at the beginning of moving lights. Broadway was the last one to get in line for that, so that tipped the scales and convinced me to shift into the entertainment industry.

What was your first step?

I interviewed at Imero Fiorentino and Associates who also went to Carnegie, as did his vice president along with a few other people there and they hired me as a draftsman and shortly after I was a lighting director in training. Shortly after that I started working there full time and it was an amazing experience. Immie (Imero Fiorentino) was very generous and he took me to Las Vegas and we went out at 2 am and watched load-ins of Las Vegas shows and he taught me the ropes and talked to me about cuing how to do this and that. It was a real education and I will be eternally grateful to him. From there I started lighting shows and that part of my career began.

To be continued









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RADIOS

It's not just a walkie talkie

BY MIKE WHARTON

An often repeated and well-tread joke concerning live productions is that "you can't do one without a milk carton and duct tape." While this will evoke images and smiles and may have a grain of truth in it, there is one thing that a production cannot do without and that is radio communications.

Every touring production manager's road case will have the ubiquitous chargers and radios on a table and plugged in first thing each morning, and it is usually the last bit of equipment to be packed away each day. The venues encountered each day will have a similar array in their security or production offices as well. They are essential.

Ron Martinelli, owner of AAA Communications has been providing this service for 27 years. A veteran of the industry before he started his business, Martinelli was part of the original stage crew at the legendary Capitol Theatre in Passaic, New Jersey working security. A stint with the local law enforcement agency with training in electronics followed by a "whole slew of alphabet soup agencies" furthered his career in law enforcement. Along the way many of his associates at The Capitol convinced him that with his background and knowledge he should get into radio rentals. Martinelli invested in 27 radios in 1975 and rented some office space.

The company now has over 6000 radios with offices on the east and west coast, with a global service presence.

"My mission statement is to maintain the same standards as law enforcement, something that's mission critical, where a guy's life depends upon it," says Martinelli. "The rigger in the steel is just as important as the cop on the street."

AAA is an authorized Motorola dealer. Fulfilling



the Motorola contractual agreement requires painstaking training and maintenance standards Martinelli emphasizes. He employs five techs in the east coast office alone dedicated to maintaining those standards. That commitment to service has kept AAA in the top 10 percent of dealers for the last ten years. The list is culled from the 815 United States Motorola dealers.

"We service a lot of the government, as well as the private industry sector with big and little systems," he says.

"All those systems," Martinelli continues, "need to meet my standards and the standards I think that industry deserves and needs. I won't send out a cheap radio just because I'm getting deals from somebody. I can lay my head on the pillow each night knowing I did the right thing."

Doing the right thing has included staying ahead of the curve of FCC regulations.

AAA Communications has been fully compliant with the FCC's "narrow banding" mandates since 2008. An effort began almost two decades ago by the FCC; narrow banding will ensure more efficient use of radio band spectrum and greater spectrum access for public safety and non-public safety users. Migration from 25 kHz to 12.5 kHz efficiency technology will allow the creation of additional channel capacity within the same radio spectrum, and support more users.

Says Martinelli, "The FCC wants to squeeze more channels into a spectrum so that where you used to only be able to have one conversation per channel you'll be able to have four conversations on the same channel, but it's got to be clean."

MOTOROLA COMMUNICATIONS

Pricing to meet your production budget

Award shows on the West Coast were becoming a more predominant source of business for AAA so in 2000 Martinelli opened a California office. Once again he sought out some of his old crew mates, who had gone on to touring, to staff the West Coast operations.

"I wanted road guys who 'got it', and understood the standards I was looking for, as well as the service needed. We are open 24/7 to provide whatever support is needed. When you call AAA you get a human, not an answering service, and that guy is empowered to do whatever it takes to solve the problem."

It's this type of commitment that has brought about a long list of repeat clients. The "who's who" of bands that played the Capitol populate AAA's customer list as well.

"In 1994 at Woodstock I met Mike Weiss." recalls Martinelli. "He asked me at that time if I'd like to provide communications for Neil Diamond. Mike and I became friends and AAA has fortunately been with Neil ever since."

The current Diamond tour is carrying about 120 radios with custom road cases and accompanying chargers.

AAA provided communications for Woodstock from 1994 to 1999 has done 29 consecutive MTV Spring Breaks, VH1 Divas, MTV Movie Awards, and as mentioned above, countless other shows.

One aspect of AAA business provides temporary production office phones too.

In the near future for AAA, expect digital format radios to come out.

"These will change the whole dynamic," says Martinelli. "For instance, you want to talk to the rigger, currently everyone on that channel will hear what's going on. With the new digitals you can dial down to the exact person you want to talk to. They'll be smaller, lighter and clearer."

Expect more announcements later this fall. For more info: www.aaacomm.com ♦









EXTENDING VERTEC



BY BILL ROBISON

Last January JBL rented the LA Forum to showcase its new offering in the large format line array market.

A select group of industry professionals was invited to experience listening and hands on operation of a VTX system. The series consists of 3 new cabinets all constructed from JBL PlyMax $^{\text{TM}}$ stock. V25 is the line array cabinet and contains 9 drivers. Complimentary dual 18" sub cabinets S28 and V28 complete the line up.

JBL Professional's Director of Tour Sound Product and Applications Engineering Paul Baughman explained the system, "VTX is an extension of the VERTEC® system we have been building and expanding for over 10 years." While similar to the VT4889, V25 contains a number of improvements. Baughman adds, "The dual low frequency 15 inch drivers (2267H) each have dual four inch voice coils and utilize neodym magnets to minimize weight." Each driver has a continuous power rating of 2000 watts.

Four 8" drivers (2169H) handle mid frequencies. This is the same basic driver used in the VT4889 and the only speaker element not designed

specifically for the V25. Baughman describes the technology, "We knew these eight's were over built for the 4889 and were quite confident they would perform well in the higher output V25." These also have dual diaphragms as well as JBL's Differential Drive™ technology. This integrates heat sinks into the aluminum driver frame improving heat dissipation. Further, the neodym magnet is placed inside the dual voice coil assembly eliminating the usual steel frame which helps to reduce the overall driver weight.

Three D2 dual diaphragm high frequency compression drivers complete the driver compliment of the V25. This is a revolutionary new design which overcomes limitations of conventional compression drivers. Baughman says, "Traditional large diaphragm compression drivers use a voice coil backed with a

metal dome. High frequency distortion is an inherent problem with this design. The D2 overcomes this by using two annular polymer diaphragms with smaller voice coils and no metal domes."

The driver integrates two neodym magnet assemblies (one for each diaphragm) as well as two phasing plugs offering high power handling, exceptional high frequency reproduction, much lower distortion all in a package 30 percent lighter than conventional drivers.

A well engineered 3rd generation waveguide combines the output of three D2 drivers producing a coherent flat response. JBL's RBI (Radiation Boundary Integrator) combines the high and mid driver sections seamlessly for smooth undistorted response. Baughman says, "We used an aluminum

front baffle to minimize weight as well as reduce the overall height of the cabinet. This allows the waveguide to extend to the edge of the enclosure for optimum coupling to adjacent cabinets while minimizing the interfer-

ence usually caused by exposed cabinet surfaces. The other V25 dimensions are consistent with the VERTEC® VT4889 allowing for suspension compatibility."

Completing the VTX system are two dual 18" subwoofer cabinets. The G28 is designed for ground stacking while the S28 can be suspended/flown or ground stacked. Both employ the 2269H 18" driver that uses the same motor structure with dual voice coils as the 2267H 15" driver found in the V25. Baughman explains, "Both subwoofer cabinets are designed to be used conventionally or can be used in a reverse cardioid configuration to minimize the amount of low frequency energy behind the array and maximize the output radiated forward." The

continued on 38 ▶



VTX SERIES

Introducing the JBL VTX next generation line array, a complete system solution that establishes new benchmarks for power density, superior performance and ease of use. With full integration of hardware, system management and simulation software, and featuring revolutionary new transducer technology, V25 is the realization of more than 65 years of JBL engineering excellence.

Learn more at jblpro.com/vtx

Hear the truth.







BY BILL ROBISON

Firehouse Productions is headquartered 90 miles north of NYC in Red Hook, N.Y. Its new 20,000 sq. ft. facility is ideally located for servicing major eastern venues. Well known for its high performance proprietary stage monitors, Firehouse provides a full menu of audio services for clients including television broadcasts, touring artists, and special events.

Company founder and President Bryan Olson started out providing sound equipment to some very high profile artists such as Peter Gabriel, Thomas Dolby, Tears for Fears, and The Cure. Specializing as a monitor engineer, Olson prioritized providing a very high level of service to some very talented ears. The company grew and the range of services it offered

expanded. Olson's philosophy of value added service has earned Firehouse a reputation as one of the top audio production companies in the industry.

ing an extensive package of JBL VERTEC® and VTX cabinets. Custom-built racks of six Crown I-Tech 12000HD amplifiers power the package and System Architect sets the amps internal DSP (digital signal processing) to match the different cabinet parameters. We recently spoke to Firehouse Systems Engineer/Technician Chris "Radar" Russo who is on the Diamond tour.

We asked about the scope of his responsibilities for these shows. "On this tour I take care of the hardware and make sure the amplifiers are working properly," Russo tells us. "It's a large package and Neil Diamond carries his own systems tech [John Drane] who measures the room and tunes the system."

With well over 100 cabinets, Russo has his hands full. Working on the tour with him are Firehouse Systems Engineer/Technicians Jeff Child and Tyler Clapp.

Russo explained a typical day on the Diamond tour. "We get picked up at the hotel at 9 a.m. and the audio department "tips" the truck at 9:30 a.m. For this tour we hang as many as nine columns of line array cabinets plus two subwoofer arrays. It's

On this tour I take care of the hardware and make sure the amplifiers are working properly. It's a large package and Neil Diamond carries his own systems tech [John Drane] who measures the room and tunes the system. - Chris "Radar" Russo

Speakers are obvioulsy an important part of live sound and Firehouse offers some of the best. Its large inventory includes d&b Audiotechnik J Series, L-Acoustics K1, and JBL VERTEC® packages. Recently a number of JBL's high performance VTX V25's were added to the list. The V25 is a newly designed large format line array cabinet.

The 2012 Neil Diamond tour has been performing in a variety of large venues and Firehouse is provid-





The 2012 Neil Diamond tour has been performing in a variety of large venues and Firehouse is providing an extensive package of JBL VERTEC® and VTX cabinets.

not a high volume show but we use a lot of boxes for coverage. The center cluster consists of twelve VT-4886's except when performing in the round when eight VT-4887's are substituted. Main left and right hangs are 16- VTX V25's per side. Next to those arrays are two more hangs of 12-VT-4880A subs per side.

"For offside left and right coverage 14- VT-4889's are used per side," continues Russo. "For the far offside left and right we have 12-VT-4888's per side. When performing in the round an additional two columns of six VT-4886's are hung horizontally providing rear coverage. Front fill is provided by eight- VT-4886 cabinets. With many boxes and a lot of hangs, we are well staffed with a great team of well-seasoned top guys in their fields. By 1 p.m. the system is up, the cabinets have been band passed and impedance checks are completed. We then turn it over to Diamond's staff for tuning. Line checks are completed by 3:30 and sound check starts at four."

Using five models of line array cabinets in the system can create challenges in providing smooth and even coverage. "Paul Baughman [JBL Professional Director of Tour Sound Product and Application Engineering] has done a great job voicing the cabinets to work well with each other," says Russo.

The different VERTEC® models compliment each other quite well. He also told us how impressed he is with the new JBL VTX series cabinets which are an extended version of the VT-4889. The VT-4889 is a fine cabinet but the V25 is a more powerful box and an improvement both sonically and mechanically.

"The sonic differences are noticeable," says Russo. "The highs are smoother and it has a lot more low end. The mechanics of the V25 are great and the rigging is an improvement over the VT-4889. It's a lot easier to rig. JBL's ASM (angle stop mechanism) lets us lock in angles on the rear hinges easily. An added bonus is VTX V25's use the same frames for hanging as do the VT-4889's and VT-4880A's." Russo also made a point to describe how much he liked JBL's mini line array cabinet, "I am very impressed with the VT-4886s. They are an amazing little box with a surprisingly high output and are a great choice for an assortment of applications. A hang of 16 of these plus low end cabinets is a very powerful package."

Bryan Olson and the entire Firehouse team have built a world-class company. Clients seeking the highest level of service will surely continue to rely on them. Last, in case you wonder where the name came from, the location of their first office was an old firehouse in Brooklyn. ♦

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JBL continued from 32

S28 may be flown in a column of V25 cabinets and placed at top, middle, or even behind the array. Further, both S28 and G28 are fully compatible with the VERTEC® VT4880 & VT4880a.

V25 and S28 use JBL's patented S.A.F.E. (Secure Array Flying Ergonomics) suspension system to easily and efficiently assemble and fly array columns. Designed for secure reliable performance all hardware is built into the enclosure and located for easy access and fast attachment. Front hinges use flip bars that pin into adjacent cabinets securing the front of the array. Captive rear hinge bars employ ASM (Angle Stop Mechanism) a unique design that precisely locks in the selected angles. JBL also offers a laser accessory (LZ) to assist in setup and offer a visual reference in aiming an array. LZ can also

be used to determine optimum placement for measurement microphones used in advanced system tuning.

Several options are offered to assist in transporting VTX systems including a dolly for a single cabinet as well as dollies holding up to four boxes. Transport covers are included with those dollies. VTX amplification is supplied by JBL sister company Crown. "Turnkey amp racks loaded with either IT 12000HD or IT 4x3500HD are part of the VTX Series specification. All loudspeaker processing is done using the extensive internal DSP in the Itech HD amplifiers," Baughman explains. While users may provide their own custom racks Crown offers VRacks prewired w/ inputs, outputs, and power distribution. VRacks help to maintain a consistent standard for every system in use. Amp racks loaded to the VTX Series specification

maintain full compatibility with the complete VERTEC® line.

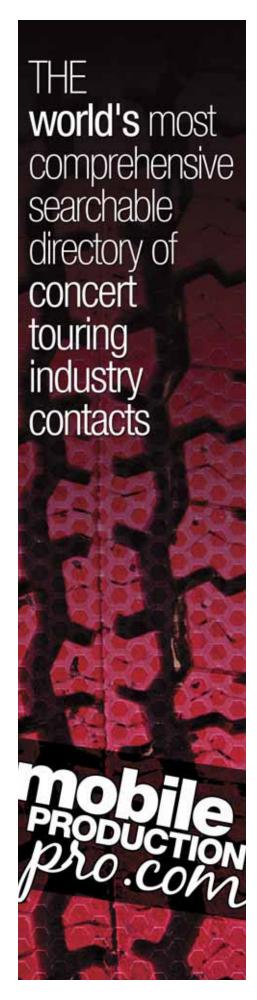
Baughman says, "While setting a new industry standard for premium high end touring may have been the main goal of developing VTX, supporting current VERTEC® users was a priority." Sophisticated and intuitive software ties the elements of both VTX and VERTEC® together. HiQnet Performance Manager is designed specifically for touring and theatrical engineering. JBL Line Array Calculator acoustic modeling allows users to enter venue parameters and then predicts system performance and the required number of cabinets and recommended angles. JBL's Line Array Control Panel equalization interface displays this information as well as options for shading and EQ adjustment. This software is so sophisticated and offers so many parameters that an entire article could be dedicated to its

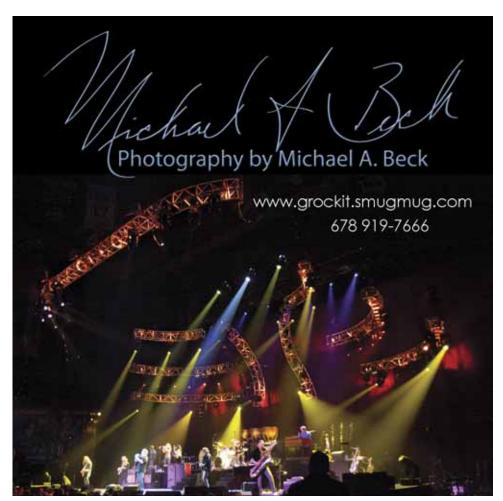
operation. Baughman adds, "We have developed an amplification/ control system to assist the engineer. It streamlines the process of design, configuration, testing, calibration, and monitoring resulting in more predictable even coverage, optimum system performance, and consistent results."

At The LA Forum last January the invited guests were very impressed. Baughman recalls, "Some engineers brought recordings of their artists to hear how the VTX system performed. Some even came back a second day for further listening. We were particularly honored that Neil Diamond came in for a listen." Six months later VTX systems are on tour with a number of major artists including Diamond. Rave reviews are coming in and don't be surprised to see a new preferred line array on technical riders. ♦

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