

# MIX

PROFESSIONAL AUDIO AND MUSIC PRODUCTION

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MAY 06

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# MIX

PROFESSIONAL AUDIO AND MUSIC PRODUCTION

May 2006, VOLUME 30, NUMBER 5

In this fourth annual special May issue, we tackle the question "Where's the Money?" From studios to freelance engineers to the SR world to consumers, money is there to be had. Coverage begins on page 31.

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*Mix* senior editor Blair Jackson turns the spotlight on videogames, ringtones, podcasts, music libraries—and, of course, music.

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There may be fewer five-room/lockout facilities than a decade ago, but rooms are still being built and studio owners are finding new ways to bring in talent.

## 46 Where Does the Music Go?

CD sales aren't going to rise again, so the name of the game today is mobile apps, music-on-the-go, portability.

## 48 The Versatile Engineer

It's not easy being a freelance engineer these days, with seemingly less work, shorter hours and minuscule budgets. But there's also opportunity to go out and discover talent, or search the Internet for mix gigs.

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In the age of downloads, it's more important than ever to make sure the right name is attached to the right project.

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Live sound companies, faced with fewer ticket sales and shortened seasons, are stepping into new markets without losing sight of their core constituency.

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We live in an industry where people will gladly spend \$5k on a 1940s mic but balk at a \$249 price tag on an all-in-one effects plug. How do manufacturers survive in our hybrid world?

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This engineer/mixer/studio owner is poised to launch eSession.com, an online network of top musicians and engineers.

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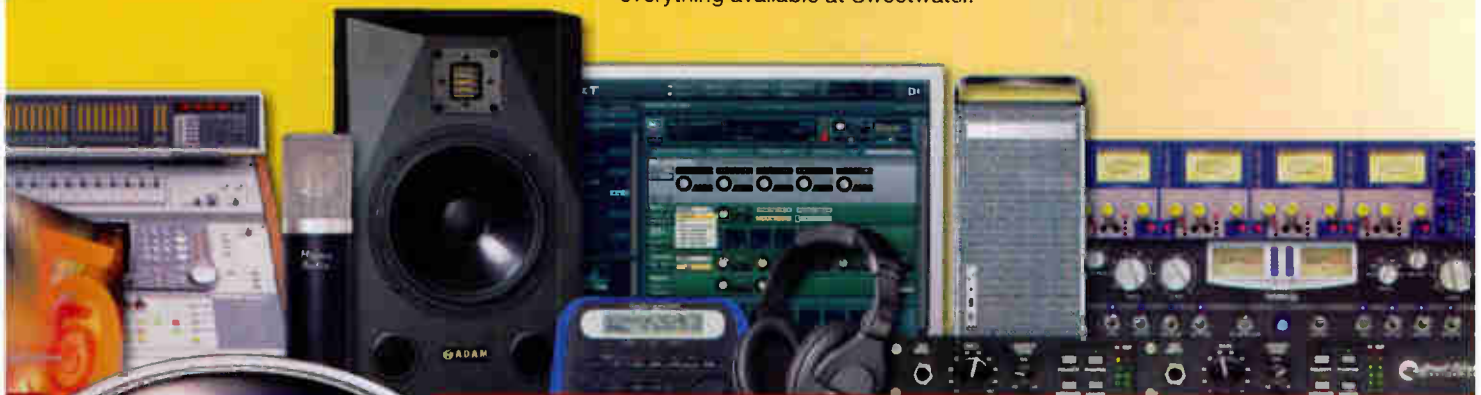
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The past year, there's been a lot of talk about the closing of several major facilities in Los Angeles and New York. It usually goes with the lament about ever-shrinking record budgets, the lack of quality acts and the move toward personal, producer- and artist-owned home-based studios. Some claim it's a sign the revolution is in full motion and the days of big studios are over; others see it as confirmation that the five-year slide in record sales had finally trickled down to the production community. We don't feel either explanation is correct.

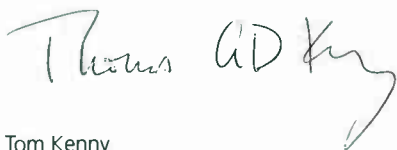
Certainly, large multi-room facilities are having a tough time booking acts for extended periods, but at the same time, The Village, Record Plant, Ocean Way, Hit Factory Criteria, Right Track/SOS, Avatar and others report solid bookings. And for every facility that closes, new ones pop up, albeit not on the scale of the build-outs during the '80s and '90s.

The entire recording industry is in transition, in terms of facilities, workflows, distribution, design, mastering and countless other ways. Traditional methods of creating projects are being challenged, and pros are finding new ways of working with these new types of projects. Around the *Mix* offices, we often say there's more audio out there in the world than ever. You just have to know where to find it.

Each year, we editors pause for a moment to tap into the pro audio zeitgeist, with our annual "theme" issue. On the heels of Napster (as the mainstream press predicted doom), we presented "What Can Save the Music Industry?" in 2003. Twelve months later, we tackled "The New Means of Production," followed by last year's "Who Cares About Quality?" This year, with the bona fide establishment of videogames, ringtones, cell phones, iPods and numerous other mobile devices as new distribution destinations, we ask the all-encompassing question: "Where's the Money?"

The savvy engineer, Kevin Becka tells us, is a versatile engineer, one with talent for recording and, increasingly, one who goes out and finds the talent. Studios that survive are those that, depending on their market, either fill a specialized niche or diversify into a variety of services. Meanwhile, manufacturers must look for economies of scale as the industry is cemented in a hybrid hardware/software world. Live sound offers countless opportunities, though Keith Clark cautions that you never give up your core constituency. We also offer up success stories from the online world, the distribution channels and the traditional studio. But start it all off with Blair Jackson's excellent essay on just where you might find audio (meaning money) today.

Keep reading, and write and let us know where you make your money.



Tom Kenny  
Editor

*Note: We'd like to introduce Bud Scoppa, our new L.A. editor, whom many of you might already know from his musings in Rolling Stone, Paste, Hits Online and countless other places. Turn to page 130 and you'll find out quickly why we're excited to have him covering that monster market we call Los Angeles.*

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## Letters to Mix



### OPERATING SYSTEMS GO VROOM

I wanted to comment on "The NASCAR Studio" ["From the Editor," March 2006]. I mean no disrespect to editorial director George Petersen or to imply that his vision of a dedicated audio processor is uncommon or unreasonable, but I would say it is unrealistic. I often miss the simplicity of a dedicated machine, but the idea of a software-based studio functioning without Internet and word processing has been available since the early days of hard disk recording.

I also argue with characterizing operating systems as "bloat-ware." In the past, the Mac OS suffered from this problem while still tethered to OS 9, but once you move to OS X alone, the system is incredibly smooth and stable. Windows will benefit once Microsoft releases its streamlined "Longhorn." I would say the OS is more like the pit crew than the vehicle. You need the Internet to update and authorize software, get support access and buy microphones in the middle of the night. You need to synchronize dozens of files, calendars and messages to keep up with clients.

The new operating systems are complex and are not really designed to be modified in the way that earlier releases were. But like any well-calibrated machine, they run better if you don't start removing parts unless you really know what you're doing. Most of the resource-stealing options mentioned in your editorial can be turned off in the System Preferences. Print drivers and languages are small files and only impact the system if you activate them. Even my ancient, slow CPUs run unbelievably well as OS X-only machines. While I sometimes romanticize the days of my faithful tape machines, I also remember the cleaning, maintenance and splicing. Every recording mechanism is high maintenance. Yes, updating all the time is a hassle, but the stability of the media and the flexibility for editing and mixing are well worth it.

Todd Zimmerman  
Studio 139

Dear Todd,

You bring up some excellent points. It's easy to romanticize about the "good old days" of analog tape—especially if you overlook the hassles of tape machine alignment and the inability to create true safety copies of sessions—and I wasn't suggesting we somehow go back to pure retro.

However, in the back of my mind, something just feels wrong when an OS install needs 13 languages, and Genie effects and cutesy animations seems to be part of the deal—even if most of these can be disabled. At the same time, I don't feel that the concept of a dedicated audio machine is unrealistic. In my studio, I have a very stable CPU that has never been on the Internet and does not have any non-audio/music applications. There are two other CPUs in the control room with Internet access and can download updates and software authorizations for transfer to the other audio machines; in fact, iLok makes the process very easy.

The studio depends on that audio machine, and the less extraneous stuff on there, the better. In the old days, a 24-track digital machine would set you back \$125,000 or more, so in comparison, an investment in a second, clean CPU is pretty small indeed. —George Petersen

### CAREER ADVICE FROM ST.CROIX

I wanted to say thanks very much for Stephen St.Croix's article "Life, Love and the Pursuit of More of It" ["The Fast Lane," February 2006]. I work in the recording industry—selling, instructing and supporting all the new software/hardware stuff.

There was a point in my life where I was so obsessively excited about the technology, the possibilities and power of the music that I could create with this, that I've made it my living so I could always be a part of it and contribute something to it. Lately, though, things have changed and for many reasons, including the "ugly" side of the industry (illegal downloading/piracy, the demise of innovative radio—I could go on), I started to ask myself why I was bothering to stay in an industry that I was no longer excited about—losing my religion, so to speak. The article gave my head a good shake and made me realize that if I don't like what something I have always cherished is turning into, then bitching about it or straight-up quitting the game isn't helping anyone, least of all myself.

Thanks for helping me realize that I really am rather fortunate to have the career I have.  
SherwoodMusic@gmail.com

### IT DOESN'T HAVE TO BE SO LOUD

I finally got around to reading last month's *Mix*, and saw your letter, "Is Anybody Listening?" ["Feedback"] Kudos! A nice, concise and well-thought-out piece of writing. I've been walking around for at least two years trying to tell people that record sales are down not because of Internet piracy or file sharing, but because most of today's records sound like shit.

It is, however, extremely difficult—if not impossible—to fly in the face of the current accepted "wisdom" of how to make a final mix sound. And I believe that it starts even before the song is placed with an artist. I first ran up against this in 1998 when I had mixed several demos that were in contention for a major artist's next album. When the producer returned from his first meeting at Sony, he told me that they had played a bunch of CDs in the VP's office, and that when our CD came on, it was significantly lower (read: not as good) than as everyone else's, and that the Sony executive actually had to resort to adjusting the dreaded volume knob while listening to our demos. He was mortified. I had to reprint the mixes through a Finalizer. Nice and loud. No dynamic range. Perfect. Songs accepted.

And months later, the final mixes were judged against that demo. (Well, that was the one they loved, right?) How could the final sound not as good (read: lower) than the demo? Jeez.

That's why I still have [Pink Floyd's] *Dark Side of the Moon* in my car stereo so that while I'm driving home from yet another generally futile attempt to create something that will make you want to listen to it more than once, I can be reminded of why I wanted to do this for a living in the first place. Thanks for letting me know that I am in good company!

Anonymous

### GOT MONEY?

As always, *Mix* loves to hear from our readers about what they liked—and didn't like—about our articles. In this issue, we focus on finding the main revenue streams that are keeping the music business alive. Perhaps you know where the money is. Let us know by sending your thoughts to [mixeditorial@prism2b.com](mailto:mixeditorial@prism2b.com).

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## RECORDING STUDIOS BEEF UP OFFERINGS

In this issue, where *Mix* posits "Where's the money?" many solutions—creative and otherwise—are offered in numerous aspects of our pro audio community. Here, we find that studios—both large and small—are upgrading old rooms, consolidating services or even building new facilities to entice a larger client base. How else are facilities finding new ways to "boost their bottom line"? Find out in "Studio Survival" on page 40. For a snapshot of a few facilities increasing their cash flow, read on.

### ELEPHANT SYMPHONY STUDIOS

After opening just two short years ago, owner Chet Thompson and studio manager Donny Baker have moved Elephant Symphony Studios ([www.elephantsymphony.com](http://www.elephantsymphony.com)) from North Hollywood to Burbank, Calif. The newly expanded facility features three post-production suites, two voice-over booths, a drum room, a lounge area and a bigger space for the control and live rooms.

The studio's A room is centered around a Pro Tools HD 3 Accel and Control|24 (192 I/O and SYNC I/O), as well as an extensive mic closet and plug-in arsenal. Monitoring is via VANT LX5s for surrounds. Studio



B offers Pro Tools LE via Digi 002. In keeping with their "jungle theme" from the previous location, Baker and his crew used different varieties of wood for baffling and décor. They also concentrated on glass installation to make the live and control rooms open and airy.

In the past year, Elephant Symphony has worked with such clients as Tony Toni Toné, Chicago rapper Juice (featured in *8 Mile*), the Santa Clarita Valley Symphony, Mitch Marine (drummer for Dwight Yoakam), bass player Cat Daddy of Parliament and up-and-coming hip hop artist Louis Garcia.

### STEPHEN ARNOLD MUSIC

With views of the Sangre de Cristo Mountains on one side and Jemez Mountains on the other, Stephen Arnold Music's ([www.stephenarnoldmusic.com](http://www.stephenarnoldmusic.com)) new Santa Fe, N.M., facility features a 500-square-foot control room designed to mimic the company's Dallas locale. Additionally, the new facility features four bedrooms and baths for the overnight client.

"We wanted to be able to take whatever we did at our Dallas studio, save the mix and then complete the project in Santa Fe, and vice versa," said Arnold. The new site has a 48-track RADAR V direct-to-disk recording system, complemented with a Yamaha DM2000 digital mixing console and

a Sound Construction custom desk.

Stephen Arnold Music head engineer Paul West and creative director Chad Cook both plan to spend about 25 percent of their time at the new location and the remainder at the company's Dallas headquarters. Arnold will do the majority of his composing in Santa Fe.

### MANHATTAN CENTER STUDIOS



New York City-based Manhattan Center Studios ([www.mcp-studios.com](http://www.mcp-studios.com)) offers two newly upgraded state-of-the-art television studios, recording studios, video post-production editing suites and two live spaces: the Hammerstein Ballroom and the Grand Ballroom. All rooms are interconnected.

In other news, Daphne Walter has joined MCS in the newly created position of director of video production and operations, requiring her to be responsible for the TV studios' day-to-day operations. Walter was at Sony Music Studios for nine years and has held senior management positions at Kingworld Productions and Lifetime Studios.





## ALAN PARSONS REGALES WEBSTER U

Engineer/producer/artist Alan Parsons stopped by Webster University as part of the school's AES guest speaker/clinician list. Parsons began his visit by speaking to a packed Winnie Moore Auditorium on the school's main campus, entertaining the audience with tales about his start in the recording industry. The visit then opened up to a Q&A session, where Parsons fielded a wide range of questions on



*From left: Webster U faculty advisor/assistant professor Gary Gottlieb, AES president Nikisha Bailey, Alan Parsons and past AES VP Matt Allen*

such topics as the lack of noise on *Dark Side of the Moon* (attributed to the Kexep expanders), the use of synthesizers (no, that's not a hi-hat in *On the Run*) and his role in The Alan Parsons Project.

According to Garry Gottlieb, assistant professor of audio production at the school,

he was most impressed by the manner Parsons used to evade the seemingly inevitable question regarding the Pink Floyd album and *The Wizard of Oz*, which Parsons later answered, "It wasn't a soundtrack for *The Wizard of Oz*; it was a soundtrack for *Chitty-Chitty-Bang-Bang*."

### ON THE MOVE



Who: Alexander "Thorny" Yuill-Thornton II, Meyer Sound

**Main responsibilities:** assist in developing long-term directions for the use of digital technology in Meyer Sound products.

**Previous Lives:**

- 1986-present, Solstice Company owner
- 1980-1986, Meyer Sound mechanical designer
- 1973-1980, McCune Sound (San Francisco) audio and video systems operation, maintenance and development
- 1969-1973, University of California, Berkeley, Television Office technician
- 1965-1969, U.S. Coast Guard technician
- 1964-1965, McCune Sound bench tech, small event setup and operation

**My favorite sound reinforcement experience was...**I enjoy it most when I resolve a particularly difficult design or optimization by pushing the envelope in some way and expanding the possibilities.

**The last great book I read was...**Larry Niven's *Ringworld's Children*.

**Currently in my CD changer:** *Talking Timbuktu* by Ry Cooder and Ali Farka Toure.

**When I'm not in the office, you can find me...**in my other office at Solstice Company.

## TEC UPDATE MIX L.A. OPEN

The 11th Annual Mix L.A. Open—Monday, June 12, 2006, at the Malibu Country Club—is being strongly supported by the audio industry. Confirmed sponsors at press time include Absolute Music, Acme Audio, Audio-Technica, CE Pickup/IAC, Harmor Pro/JBL Professional, The Pass Studios, Record Plant, Shure, Warner Bros. Studios and Yamaha Corporation of America. A limited number of playing spots and sponsorships are available.

Call Karen Dunn at 925/939-6149 or visit <http://mixfoundation.org> for information. Mix Foundation events benefit hearing conservation and audio education programs, including House Ear Institute's Sound Partners program and Sound Art.



## AVATAR STUDIOS: "ANALOG IS BACK!"

Avatar Studios (New York City) boasted as many as six Studer A800 machines running simultaneously on different sessions on the same day, as well as multiple ½-inch analog sessions. V2 band Icarus Line is mixing from 48-track/2-inch to ½-inch analog using the studio's Studer A300s and A820, as well as a ¼-inch B67 machine for slap effect. Other bands in tracking to tape include The Cringe (who also incorporated an Echoplex for analog reverb), Ryan Adams and Satori Shiraishi.

"The new tape companies can't get on track fast enough!" exclaims Kirk Imamura, president of Avatar Studios.



## NOTES FROM THE NET



### MAKE IT SNAPPY

Snaptune ([www.snaptune.com](http://www.snaptune.com)) has released Snaptune One, a new software product that "downloads" complete songs, talk shows, interviews and live sessions directly from FM radio to a PC. From a list of local radio stations, users pick their faves and Snaptune One displays a list of the songs playing on the radio as it finds them. Users can sort, play, write, burn or transfer these songs to an iPod or other media player; the software can also podcast directly across a home network to a user's laptop.

Snaptune One also works with online music stores to provide a direct link to purchase albums related to any song it finds. Snaptune plans to add links for individual song downloads, ringtones and concert tickets in the future.

Two versions of Snaptune One are available in beta form: a free version that can write or transfer up to 20 songs and a premium version for \$39.95 that can export an unlimited number of songs in either WMA or MP3 format.

## RETURN OF THE KING ...GUITARIST, THAT IS

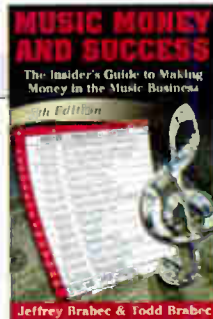
Elvis Presley's former guitarist and Rock 'n' Roll Hall of Fame inductee James Burton returned to SugarHill Recording Studios (Houston) 30 years later to track guitars for Louisiana band Honky Tonk Heroes. Burton recorded guitars with SugarHill chief engineer Andy Bradley in Studios A and B, assisted by Tyson Sheth. Bandmembers Larry Parcell (guitar/vocals) and Kevin Rath (guitar) are producing the effort.



James Burton (left) and Andy Bradley, with members of Honky Tonk Heroes looking on

## BOOKSHELF

They do the math so you don't have to. The just-published fifth edition of *Music, Money and Success* (Omnibus Press/Schirmer Trade Books) explains—with case studies, contracts and formulas—how the music business pie gets divided. This new edition contains a detailed breakdown of royalty distribution for ringtones, videogames, music downloads and subscription services, as well as for indie- and major-label CD sales, and music for theater, commercials, TV and film. *Music, Money and Success* was written and updated by two brothers and former entertainment attorneys—Jeff Brabec, who is now VP of business affairs for Chrysalis, and Todd Brabec, VP of ASCAP—and is designed to help individuals in this business protect their rights and manage their own careers.



## INDUSTRY NEWS



Richard Butlin

Christine Schyvinck has accepted the position of executive VP of global marketing and sales for Shure (Niles, IL). Schyvinck replaces Michael McGinn, who has left the company. Ron Thompson is the new VP of operations...Audio-Technica (Stow, OH) tapped Larry Estrin as strategic technology specialist. In other company news, Greg Pinto is the new VP, marketing...L-Acoustics (Oxnard, CA) promoted Bob Alumbaugh to the quality assurance and customer service position...

Berklee grad Rick Breen joins Kurzweil Music Systems (Lakewood, WA) as software engineer...New district sales manager for Northeast U.S. at Aviom (West Chester, PA) is Dana West...Joining Sonifex's (Northants, UK) sales department is Richard Butlin, technical sales engineer...Brian L. Wheat fills the newly created position of director of marketing at Aurelex Acoustics

(Indianapolis)...Lectrosonics (Rio Rancho, NM) has opened a Canadian office in Toronto, with Colin Bernard as director of Canadian operations and Joe Burtinsky in charge of the new office's warranty repair facility...New distribution deals: KRK Systems' (Chatsworth, CA) products in the UK will be handled exclusively by Focusrite (Bucks, UK); Group One (Farmingdale, NY) expands its rep force with Hudson Marketing (Williston Park, NY), handling Upstate New York and New York Metro area, and Michael Chafee Associates (Sarasota, FL) for Florida; Warman Marketing's (Broomfield, CO) coverage has been expanded to include Arizona and Las Vegas, and the Mac West Group (Long Beach, CA) will cover Southern California; AXI (Rockland, MA) named JMS Marketing (Austin) and Pro Media Marketing (Ann Arbor, MI) to cover the North and south Midwestern territories, respectively; and SLS Loudspeakers (Ozark, MO) added HIGHWAYmarketing (Dallas) for the southern Midwest territory.



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### "Where's the Money" Special Section

As always, *Mix* loves to hear from our readers about what they liked—and didn't like—about our articles. In this issue, we focus on finding the main revenue streams that are keeping the recording business alive. Perhaps you know where the money is. Let us know by sending your thoughts to [mixeditorial@prism-b2b.com](mailto:mixeditorial@prism-b2b.com).

WHERE'S THE MONEY

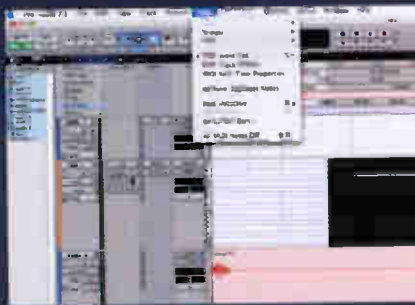
### "Soundcheck": Kem

Dig deeper into this Nashville-born, Detroit-based singer/songwriter, musician/producer. *Mix* travels back in time and talks with Kem about his latest effort, *Album II*, for which he is currently touring.



### Gina Fant-Saez: [www.eSession.com](http://www.eSession.com)

There's much more to producer Gina Fant-Saez, and much more to her startup, eSession.com, than we could fit in print. Read the entire text of Michael Barbiero's interview, and find out how you can join the ranks of these e-musicians.



### "Field Test": Pro Tools 7

Solve the Pro Tools "labyrinth" with these extra screenshots to help you navigate through this HD 7 software upgrade.

## SPARS SOUNDBITES: MOVEMENT

[Editor's Note: This month, we begin the first of our monthly updates from the Society of Professional Audio Recording Services (SPARS), an organization that has been around for 25-plus years, but has operated solely among the high-end world of recording facilities. With recent efforts to broaden membership and activities for all members, we thought it was time to create a presence in *Mix*, with monthly updates on business issues that affect all aspects of the recording industry. We kick it off with a note from the new president, Karen Brinton.]

You may not be familiar with SPARS, or you may recall it as an organization only representing multi-room facilities, relics of a previous age. But think again. Today, SPARS is in motion, reaching out to all who want to be part of an organization that cares about the industry, from providing services for ailing engineers to fighting for standards, and everything in between. Let us not forget that SPARS stands for the Society of Professional Audio Recording Services.

Last year was a banner year for the organization. Under the presidency of Andrew Kautz, and with Marcia Vaught-Kautz onboard as executive director, it was a year of growth and change that was long overdue at the organization. Committees were created, the board involvement was extraordinary and the financial picture moved into the black, allowing us to move forward on some key initiatives. I hold Andrew and Marcia in the highest regard for their dedication and commitment to SPARS.

Perhaps the most important initiative? SPARS now has medical insurance available to members. In an age where medical care is costly and sometimes prohibitive to both small businesses and freelancers, I'm so proud that we're able to offer this. It's a huge step in the strides SPARS is taking to offer members value-added benefits.

SPARS, in conjunction with the Conservatory of Recording Arts & Sciences, will be holding a Technology Summit for all SPARS members May 12 to 14, 2006, at the CRAS campus in Tempe, Ariz. Both technical and business/legal issues will be addressed. Our board held a panel there last year for the students, and all who participated had a great time. We thoroughly enjoy our relationships with our educational members. Our interaction with the schools and students is both energizing and inspiring.

Our profile has been raised significantly with the support of our friends in the press, and we are in the process of a complete rebuild of the SPARS Website, sponsored by Microsoft and AMD. The SPARS Website will be more interactive and a great resource for information for our members. Please check in regularly at [www.spars.com](http://www.spars.com).

This year, with 155 active members, SPARS looks forward to the future of our ever-evolving industry. The diversity of our membership helps all of us stay in touch with what's going on in the various facets of our industry. We've developed many relationships with strategic partners, and will continue to add to our affinity program to keep our members in touch with services beneficial to our businesses.

The SPARS community includes audio recording and mastering facilities, manufacturers, engineers and multimedia specialists—everyone from single-operator studios to large multi-room facilities. If your business involves music recording, mastering, video, film, industrial or corporate media, advertising, computers, interactive games, forensic audio, studio design, manufacturing, Internet audio, education or any allied industry, your colleagues are members of SPARS. SPARS' work is carried on by sister organizations in England, Japan and Canada.

We look forward to our association with *Mix* and our forum for discussing business and technical issues with all segments of the recording and live sound industries. After all, it's all about the audio!

Karen Brinton is owner of Remote Recording and president of SPARS. For more information on SPARS, please visit [www.spars.com](http://www.spars.com) or call 800/771-7727.



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# The Classics, Part 3

## The Art of Noise

[Stephen St.Croix will be back with another original "The Fast Lane" next month. This timeless column first appeared in June 1992.—Eds.]

Sometimes it is easy to forget the skill and (dare I say) artistry that is evident in the recording techniques of the early masters. As technology advances, we tend to let our base reference line shift; that is, we get a little spoiled. For example, no matter how good the engineers of the distant and even recent past were, they could never produce masters as quiet or clean as we can today with Dolby SR or the best digital machines.

But back to (see, I already forgot) the *skill* required to capture the sensitive nuances of Tina Louise's voice in the famed series *Gilligan's Island*. Or the artistic mastering of the bell-like purity of Lucy's famous bleary-eyed bawling. That charming overmodulation.

For more recent examples, I will skip over the obscure and remind you of some of the destined-to-be-classic work of both the silver and the phosphor screens, such as *Ren & Stimpy*, *The New Mighty Mouse*, *Lifestyles of the Rich and Famous* or even *Cops*. And the Europeans say that Americans have no culture!

Then there's music. Recording music is quite different from recording, well, anything else. Obviously, experience and technical skill are needed in any type of recording and mixing situation, but if you are recording and mixing music...well, your job is unique. You have to search for and preserve whatever emotion, whatever *soul* you can find. You have to keep the producers (and sometimes even the artists) happy. There are times when your job is to mix water and dirt and make damned sure you don't end up with mud. Good engineering has never *really* saved bad music, but bad engineering has certainly ruined good music.

Think about it. You are mixing a score to back up a story told by a moving picture. You have to make sure the music alone tells the story, and the listener builds the mental images as a result of being exposed to that music.

With some special exceptions (like the calculated, cold, technical accuracy of Thomas Dolby's "Aliens"), you want the recording to have a life. It should sound like the players are alive, real and situated in a common physical space, whether or not they actually played together live onstage, in the studio or even played together at all. You can't have the buying public running around aware that the horn parts were put in two weeks after the guitar and that the players have never even met each other.

Recording music is an art, and if done well, the recording is art. There is really no more science (tools) involved than in any other technically assisted art. There is no science at all that can tell whether the artist has done it right.

As long as I'm talking about how recording music is

different from recording any other type of noise, I might as well get to my beliefs about how it is different from any other type of *art*.

Producing music (as in the entire writing/scoring/performing/recording/producing/mixing production process) carries with it a kind of singular responsibility.

When people look at a painting or sculpture, they look at something that is relieved of its position in the space-time continuum. For all the months or years of work that it represents, it now just sits there, static, outside of the flow of time. It is up to the viewer to provide the movement, the flow, the life. Only when viewed is the static art temporarily brought back into our flow of time. How thoroughly this takes place depends, of course, on the viewer and the skill with which the piece itself was rendered.

When the observer walks up to a painting in a museum or gallery, *he* controls what he looks at and for how long he does so. As the artist is usually not physically there to grab him by the arm and say, "Come over here and look at this," the artist of course tries to control the observer by composing the painting so that it *pulls* the eye of the viewer in toward the center, to capture him and force him to donate enough *time* to the work that he will emotionally react. Hopefully, he will be drawn to it so much that he decides he *likes* it. So the painting must sell itself, *every time the observer looks at it!*

The observer can walk by and look at the upper-left corner, the center or only the frame. He can (now this is where it gets important) look at any part for as long as he wants, as many times as he wants. He can spend an hour looking at details (learning *how* it was done) or three minutes looking at the integrated entire concept (learning *why* it was done). He can take as long as he wants to build his reaction to the piece of art. His choice. Again, hopefully guided by the artist.

Okay, now moving pictures. They tell stories, they virtually assault the senses. They simultaneously input both visual and audio data. The viewer (whom I will call the "victim" from now on) has essentially nothing to do; he is usually force fed. This "entertainment" is passive. To make it worse, nobody even stands up to watch this stuff, and they certainly don't walk by and glance over for a flash overview. By the time the product begins to exist in their space-time continuum, the victim is *already sitting down*, waiting, popcorn or TV dinner at hand. In fact, the victim is yanked out of his own real-world time flow and taken along for a ride in the imaginary time flow of the film or show. The better this trip, the more extreme the escape, the more he likes the piece.

Because it is passive entertainment, it must tell a story, and that story must be very simple. (Remember, the victim can't stop and ask the projectionist to show that last part





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over again unless he is at home watching tape or disc.) Even plots that are said to be complicated and convoluted are actually simple compared to the complexity of a good painting. Again, this is because the viewer only gets one shot at it, at an exposure rate chosen by the artist, not the viewer. Rarely does a victim say he liked a film if he couldn't understand it. (The exceptions are film students and guys trying to impress first dates.)

At the same time, moving pictures had better *hook*; they need to be fascinating, awe-inspiring, stimulating, beautiful, horrifying, disgusting, shocking, violent, explicit or some other extreme thing or the victims will simply ooze out through the exits (or change channels). The arts can't be financed if the financiers turn away, you know.

Music...music is not film. It is not painting. Like film, it moves through the lives of listeners at a rate determined by the artist, but unlike film, it is not passive, as the listener must actually *listen*. He must concentrate enough to build the images in his mind. He must recognize and relate to the instruments, the musical rules, the textures, the timing and all of the deviations that separate each piece from the one before it. For, unlike film or static art, he is much more likely to listen to several individual pieces in immediate

succession. He will want a specific mixture of continuity and individuality. Quite a challenge, even down to album sequencing. Quite an art.

Music must be clear, *transparent*, so that the listener can choose how deeply he wishes to listen—on the fly, in real time. A tune must be so transparent that it pleases the listener *each* time he hears it, even though sometimes he may be otherwise occupied and can only give it superficial attention, while other times he may be relying on it to set a mood, while still other times he may be concentrating solely on it.

When people hear your tune over the radio and decide to buy the album because of what they heard, they are trusting you to deliver (almost) the same quality on all the other tunes. One-time blind trust. Quite a responsibility.

Each song must set the stage, both emotionally and aurally (that is, the listener must sense a physical space, an existence, a *life*) before it can deliver its payload. There had better be some little secret in each song that emerges a bit more each time it is heard—a harmony, a beauty, a subtle complexity; a reward for repetitive listening. Songs, like film, must hook, but songs must do it 100 times, film only once.

Average people today are not exposed to much fine art in the form of painting and sculpture in their daily lives. They *are* exposed to moving pictures and music. While they obviously expect something from TV and movies, they expect something more from their music. They spend *much* more time with music. They use it to separate themselves socially. Surf dudes don't hang with metalheads. Hendrix freaks didn't give copies of *Are You Experienced?* to their parents. Parents might have *tried* once or twice to give those children Pat Boone, only to discover that America actually *is* multilingual. Don't mess with the other guy's ANTHEM!

Listeners use music to excite, move and soothe every day. I wonder how many first dates are *sans* music? I wonder how many children are conceived *sans* music?

Let's see now. How many of *your* childhood memories are linked to films or paintings? On the other hand, how many are linked to the radio and the songs that it gave you? See what I mean?

Music is a special kind of magic. It is *my* favorite kind. ■

SSC's anthems are "The Wanderer," "Sleepwalk" and "Runaway." *Nobody said he was a kid.*

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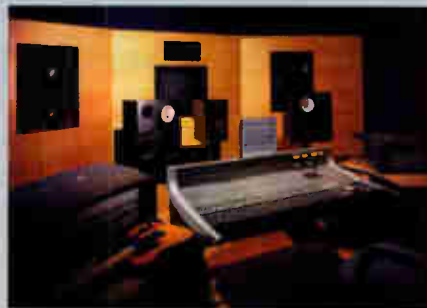
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# Can You Hear Me Now?

## The Wireless Crunch Is Coming



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**W**ireless technology has been very, very good to the audio industry. There are something like 400,000 wireless microphones in use in the United States alone—in concert halls, musical theaters from Broadway to elementary schools, houses of worship, film sets, sports arenas, conferences and conventions, and karaoke bars to name just a few of the venues in which they've taken hold in a big way. And wireless in-ear monitors have been a tremendous boon to the concert sound industry, protecting performers' hearing and going a long way toward eliminating mud in the audience mix.

But wireless audio is in trouble, thanks to big changes coming in the television industry and the way the TV broadcast spectrum is used. That's because their design takes advantage of holes in the spectrum that have been there since the dawn of TV broadcasting—and with the switch to digital television now mandated to be complete in three years, those holes are vanishing. Although the government is saying that there will be acres and acres of free spectrum opening up when we all get digital TVs, it looks like there may not be much room for wire-

less audio. "No one wants to tell you that the mic you bought last year might be nearly useless in three years," says wireless technology consultant Gary Stanfill, "but privately, the manufacturers are highly concerned."

In the world of analog television, interference between transmitters has always been an issue. So the rule has always been that you didn't have two transmitters within 150 miles or so on the same channel nor did you have, in the UHF band, transmitters close to each other on adjacent channels. The FCC created a "table of allocation" for every geographic area, which dictates which channels could be used and which ones couldn't. Wireless mics, because they were low-power and low-bandwidth, fit very nicely into the spaces left open.

But in the brave new world of digital television, there is theoretically no adjacent-channel interference. So when all analog transmitters go off the air in February 2009 (which was originally supposed to happen by the end of this year, but broadcasters managed to get the schedule pushed back—good thing, as hardly anyone I know actually owns a digital TV set), all those empty adjacent channels will now be usable. Rather than give those



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World Radio History

channels to other broadcasters, the FCC is going to shrink the UHF band, taking away everything above channel 51 and requiring existing broadcasters on those channels to move to the lower part of the band.

What's going to happen to that suddenly available spectrum? It's being sold off by the government for nonbroadcast purposes in auctions that will net the Feds an estimated \$20 to \$30 billion. Not everything is for sale; several channels are being allocated to public-safety, two-way radio broadcasts, hopefully to avoid the kind of communications breakdowns that famously occurred in the World Trade Center and

New Orleans disasters. And channel 37 has been set aside for radio astronomy and medical telemetry. (The latter is in response to an early DTV test in Dallas that knocked out heart monitors on cardiac patients in two hospitals.) As for the rest, "No one really knows," says Stanfill, an industry veteran and author who was president of wireless audio pioneer Vega Systems for some 18 years. "There will be various kinds of digital services like data transmission, point-to-point data links, WANs [Wide-Area Networks], metropolitan area networks—maybe a different form of TV."

What we do know is that companies

like Qualcomm are putting lots of money into large chunks of the spectrum. "When analog broadcasting ends," says Stanfill, "two-thirds of the TV stations in the U.S. will change channels, and all of the people who've been waiting for their investment to pay off will fire up a gazillion transmitters up there above channel 51."

That's coming, but in the meantime, everyone who has worked extensively with wireless mics knows that RF interference already is often a problem. Another industry observer, who asked for anonymity, says, "At your average church in a place like Orlando, on any given Sunday, four out of eight wireless systems will experience such interference that they can't be used. I know a guy in Raleigh, North Carolina, which isn't exactly the entertainment capital of the world, who bought 14 premium systems, and he's lucky if he can get 10 of them working at a time." At the 2004 Republican National Convention in New York City, according to Edgar Reihl of Shure, more than 300 wireless frequencies were in use for microphones, intercoms, security and monitors. "But there was a special coordinator there appointed by the FCC," he says. "They had to use every open TV channel and operate on top of some channels that were actually being used in outlying areas around the city. It took quite a bit to pull that off."

Wireless mics are not the most powerful systems on the air: They can operate at 250 milliwatts, but Reihl—a 36-year veteran at Shure who is a technology director in the company's Advanced Development department—says, "Almost none do, because battery life suffers and if you have a lot of transmitters operating in the same place at that power, intermodulation interference will get in the way. So they typically put out about 10 to 50 mW."

And although a lot of people ignore the fact, wireless audio systems actually require a license and are really only supposed to be operated—in the TV band—by broadcasters and media producers. (Churches, following some arcane reasoning, are usually also allowed to fall into that category.) But according to Stanfill, only about 10 to 15 percent of the systems in use in the United States are properly licensed. "In theory, you can be busted for this by the FCC," he says, "but unless you are incredibly stupid—which has happened, but not often—you'll get by with a warning. Even that's rare since the FCC doesn't have the resources to police the whole country. But broadcasters especially need to be careful because any FCC problems can endanger their general broadcast license, which is

—CONTINUED ON PAGE 138

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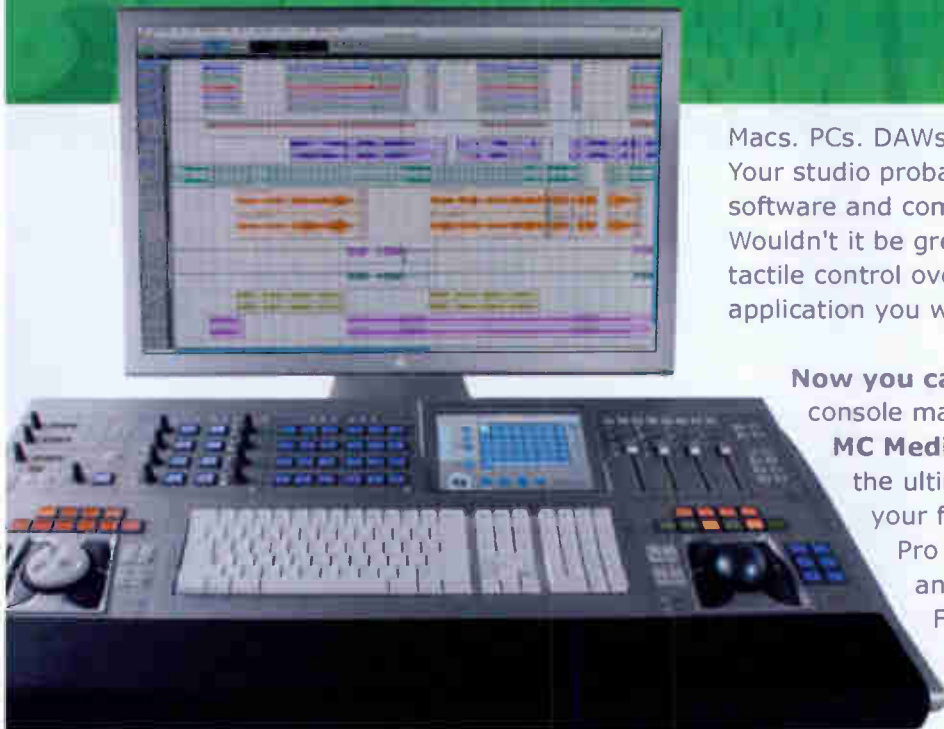
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# where's the MONEY



BY BLAIR JACKSON

What's that sound? Is that *flap-flap-flap* you're hearing the sound of money flying out your window on little white wings? Is that *VROOM* outside in the street the roaring engine of the moving van that's taking your job to India or your hopes and dreams to Nowheresville? Are all the pens in that cup on your desk filled only with *red* ink? Did you think because you were smart enough not to invest in a dotcom during the go-go '90s that you'd be home-free in the new millennium? In the immortal words of Fred Willard's hapless, washed up Mike LaFontaine character in *A Mighty Wind*, "Wha happen?!"

It seems that everywhere you look in the entertainment industry, people are singing the blues: about revenue lost to piracy, or changing business models, or "unfair" competition from foreign companies, or a general downturn in the economy, or the post-9/11 blahs—you name it. It's hard *not* to buy into the skepticism and despair because we see it all around us in our daily lives: businesses going bust, friends out of work, that nagging feeling of desperation creeping in when you least expect it. Hell, three years ago, we devoted our entire May issue trying to answer the question: Can the music industry be saved?

The answer, of course, is "Yes," but

we all have to change the way we do business because the old models are breaking down and being replaced by new ones. The big questions then become: How can I get some of the action? How can I anticipate what's coming next? Can I take the skills I have today and use them for the jobs of tomorrow? Where *is* the money?

"Oh, it's *out there*, Jerry!" Kramer might say with that wild but confident swagger. And it *is*. Yes, there has been a downturn in the conventional music industry because of file sharing. Yes, theater revenues for Hollywood films were down a couple of percentage points in 2005—blame high ticket prices, weak movies and the rising popularity of DVDs for that. And, yes, recording studios are still closing left and right. But there are still billions and billions of dollars being generated in the entertainment business, and there are many, many people who are getting rich because of it—you just don't happen to know who they are because it's *new* people doing *different* things.

For instance, did you know that the ringtone industry generated more than \$600 million in sales in 2005—double what it made in 2004? That's a revenue stream for artists, labels and the companies that market them that literally did not exist five years ago. And there

are plenty of examples like that up and down the industry.

That's what this issue is all about: Re-evaluating the old business paradigms, learning how to look for new opportunities, seeing how our colleagues are dealing with such a challenging fiscal landscape, helping you figure out how *you* might fit into the ever-shifting scheme of things. This is really just a fancy way of saying: "Get over it, because it isn't ever going to change back to the way things were; deal with the reality of how things are, not what you wish they were; and look outside the world you've built and take some chances." We don't mean to be harsh; we're just trying to keep it real.

Many of the articles in this issue discuss different aspects of this dilemma/opportunity, but I'd like to kick things off with a broad overview on the subject—and offer a few tips, as well.

Here are two words you need to know to be savvy in this business: mobile apps. There are still a few of us troglodytes out there who use our cell phones only as cell phones (when we remember to carry them at all), and who still use a stock ringtone. But that is *so* 2002. Today's (and tomorrow's) cell phones are designed to be media centers, providing audio and video entertainment, text messaging, Internet

access and other things we haven't even thought of yet. Let's face it, the iPod has drastically changed the fortunes of the music industry. It turns out that a lot of people *will* pay for music legally, so now the scramble has begun by content providers—Apple and many others—to sew up as many labels and acts as they can to give their potential customers as much choice as possible. Companies are suddenly trying to outbid each other to land exclusive content that will give them an edge over the competition—that's great for the artists—but the mix of corporations involved goes beyond the major record labels. Suddenly, Verizon, for example, is spending big bucks promoting an exclusive audio/video/ringtone download for a song called "Hips Don't Lie" by Shakira (whose hips truly do not lie) and Wyclef Jean. Everyone from the ubiquitous Black Eyed Peas to Moby to the Rolling Stones has cut a big-money deal to offer exclusives with Apple or other companies, but some of the profits have also trickled down to smaller bands.

Have you ever paid to listen to a podcast? Not many people have. So far,

## Most podcasts are still extremely low-budget affairs that do not require an audio engineer, but just wait...

podcasts have mostly been a free service to increase traffic to Websites—most of which are still trying to make their nut by selling advertising. This used to be a pretty tough proposition, but it's getting easier as print advertising declines (sniff, sniff...that's okay...we'll be fine). Using the model of iTunes' success, companies (and individuals) are finding that people will pay a buck or three for regular podcasts. For instance, the brilliant British comedian Ricky Gervais (*The Office*, *Extras*) has a successful pay podcast, and there are business sites that offer pay podcasts of wisdom from business leaders and writers, as well as tips and advice. And though most podcasts are still extremely low-budget affairs that do not require an audio engineer, just wait—as more and

more people show their willingness to pay for cool content, production values *will* go up. There will be theme music, sound effects and multiple-mic setups, and someone is going to get that work. Eventually, there will be companies that specialize in podcast production.

Video and audio-for-video are two more growth areas, even though it seems like MTV hasn't shown a video in, what, 15 years? There are more outlets than ever showing music videos; go to [www.rollingstone.com](http://www.rollingstone.com) and you'll see links for hot videos (as well as its own "exclusives"). In fact, go to almost any entertainment or even hard-news site ([www.cnn.com](http://www.cnn.com), et al) and you're a mouse-click away from watching a hit video. Video budgets are not what they once were, except for the

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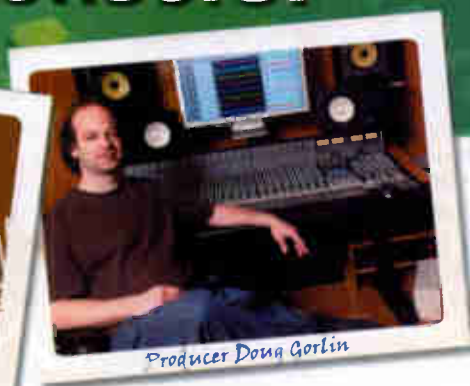





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biggest acts, but a wider range of artists are getting to make videos. And despite the fact that most are still lip-synched, the majority also require production audio—it's a nice way for recordists to scare up a day or two of work. Beyond those sorts of conventional videos, however, there's been an explosion of performance videos, both for the long-form DVD market and, just as significant, for the value-added bonus material sometimes attached to regular audio albums. Record companies still want to do whatever they can to maximize

the sales of CDs because they make more on them than they do on downloads. (So do the artists.) And that's why now it's so common to find some sort of DVD included with the album package (even if it's just a single video/song); that's also why the difficult-to-pirate DualDisc seems to be catching on in a big way.

The demand for concert material has even helped the troubled mobile recording industry, though frankly more and more people are turning to smaller operations that come into a venue with a few

good mics and a DAW loaded with processing plug-ins rather than a truck with a fantastic console and all the outboard gear you could want. These are good times for companies that offer inexpensive remote-recording services. It's a tough field in which to establish a reputation, but the aggressive and well-connected operations are getting work. Smart recording studios are figuring out ways to lure some of these midline and cheaper projects to their big rooms for mixing and post. It's never been more vital for studios to keep an ear to the ground to know who's working on what, and where, because piecemeal work is increasingly the bread-and-butter of the big studios; the days of long lockouts are long gone, except in the rarest cases.

The growth of DVD/DualDiscs has also been the saving grace of the highly hyped surround recording/mixing market. Despite glowing press and the best intentions and brave expenditures of a few record labels, surround CDs have *not* caught on. Now, the top mixers are finding that surround album work is already drying up—and before the format wars even got settled! But this is no time to ditch that surround system because the rest of the industry is embracing surround: HDTV, DVD, film and—the great sleeper you should all be thinking about—video games! Whether you have a home studio or a commercial facility, surround should be part of the equation. If there's no call for it in your business now, there will be soon. And it's never been easier and less expensive to get in the game. Surround may well become many mixers' ticket out of their niche and into different income-producing fields.

Videogames. Maybe you have kids who have an Xbox or PS2 going 24/7. Or maybe you're playing *Madden* football or *Grand Theft Auto: San Andreas* in your spare time. In the past week alone, my 15-year-old son bought a \$50 RPG game called *The Elder Scrolls IV: Oblivion*, and my 12-year-old-daughter downloaded a demo of some cool game that's coming out in a couple of months; I can't recall the title. I hear the music for *The Sims* wafting through my house more often than I hear the family hi-fi. Dig this: In 2005 gaming retailers sold more than \$10.5 billion worth of gaming hardware, software and accessories. The demographics of who's playing games broadens with each passing year; once the province mostly of teen boys (okay, it *still* is), it is also increasingly attracting girls and people over 30.

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If you've seen (and heard) the best of the current generation of games, you know that is an industry that is rapidly maturing and it is already proving to be a great source of jobs for audio engineers, sound designers, composers, programmers and, of course, visual artists. With budgets for big games now well into the millions, there's money to be made by people with the right talents.

Recently, I spoke with Jeanine Cowen, who's both a teacher at the Berklee College of Music and director of the Recording Arts program at the Center for Digital Imaging Arts, a new school opening at Boston University this month. She notes, "What I've seen the last few years is that a lot of the jobs that graduates are getting are in non-traditional—that is to say 'regular music industry'—fields. There's a lot of game work out there, and there's a huge need for qualified people.

"[At CDIA], we still teach traditional music industry production engineering, but we also have a focus on game audio and film post-production. Today, I feel there's more audio work in games than in the film world. CDIA also has a film and animation program, so we even have visual collaborators for our recording arts students.

"It is important to know the audio basics, however," she stresses. "Even though we're so far into the digital world, there are still as many signal flow issues in digital as there are in analog, and we still have to deal with the acoustic world and with microphones and loudspeakers that are part of the chain. Of course, computers are a huge part of so much music recording now, and, obviously, they're extremely important when it comes to games, so in a sense, today's student has to learn much more than I did when I went to Berklee. As far as DAWs go at CDIA, we're both platform- and application-agnostic. We have Pro Tools, but because we're also dealing with game audio, we have to deal with things like SONAR and Sound Forge, as well as Logic and Digital Performer on the Mac side."

"Having broad technical knowledge, especially of computers, is really important in games," adds Brian Schmidt, program manager for audio and media technologies for Microsoft's Xbox division. "There's a need for people who can do the software equivalent of getting under the console with a screwdriver. So there's specialized knowledge like that, but there are also so many people working on most

games now. Ten years ago, the 'audio team' was usually one person; it was all the same guy doing everything. I was able to get a lot of gigs because I could write the music and write the code to support it. But now the sound of a game is this great combination of music and dialog and ambiences and sound effects and Foley, and it really does require a team."

Schmidt says that having sound design or composing skills doesn't automatically make a person a good fit for the gaming world. "Assuming that you're really good at what you do—the minimum bar is, 'Yeah, you write great stuff—someone like me might throw a question like, 'What's your favorite Xbox game or PlayStation game?' to gauge, does this person know games? Because we want somebody who's into what they're doing and likes the games and the challenges associated with games. Hopefully, we can weed out the people who think, 'Well, I think I'll do game music until I get a *real* job doing film music,' because this is definitely a full-time gig."

"We hire symphony orchestras, sometimes we hire orchestrators. Sometimes we do it all ourselves, depending on the budget for a game," Schmidt continues. "There's a big gamut of stuff. On the very low end, you can go down as far as music for cell phone games or Game Boy-type games, which are really challenging, actually. Can you do really great six-voice orchestrations of things? It's like writing for a woodwind quartet all the time. Sometimes you need to do great orchestrations with limited technical resources. On the other end, can you do the big orchestral thing?"

"We also look for people who *get* the notion of music for games and how it has to be more adaptive and flexible. When you're doing a [commercial] jingle, for example, you know that at 78 feet, 12 frames, Ronald McDonald falls out of bed and you need a little flourish, so you can musically lead up to it and, just at the right time, you can put your musical flourish in and that's done. With games, the challenge is you don't know when something is going to happen. Is the player going to be totally lost and be in this room for 25 minutes wandering around, or are they going to get through it in a minute-and-a-half and be onto the next piece? So you have to picture music in more dimensions than straight linear. With sound effects, too, it's dependent on what the player does, so you have to think of it differently, and everyone on the team has to be think-

ing about what's the appropriate level of music or dialog or effects for a given moment in the game, and how it's going to be constantly changing."

Are there other nonconventional areas that might require your audio or musical skills that you haven't considered? How about production music and sound effects libraries? This is another rapidly growing field where audio standards have increased steadily through the years as the demand for more sophisticated and original music and effects has increased. The boom in cable TV networks has fed that industry's rise, and as the music and effects have gotten better, whatever stigma about using libraries that existed in some circles seems to have disappeared. It isn't "canned music" anymore. It's not unusual for major films to use some library music to supplement a score (or use it as source music in scene), and nearly all but the biggest-budget film productions use library effects in some way. "Name" composers, musicians and top film effects designers are now proudly putting their names on libraries and bringing work to recording studios.

Most library companies now have searchable databases online (in fact, they were one of the first branches of the entertainment business to truly embrace e-commerce), and on the audio side, computer editing skills are a must: This is a business that deals mostly in short bursts of information rather than long cues. And because it is, increasingly, an Internet-based business, the wily e-entrepreneur can make some noise quickly. Put up a well-designed site selling music or effects that really stands out in some way, and you may have yourself one more reliable stream of income.

So, look in new places. Meet some new people. Meet some *young* people in your field. (And if you're young, meet a veteran—he/she can still teach you a few tricks.) Educate yourself. If you need to learn how to use a DAW, there are many people out there who can teach you; chances are, it beats wading through manuals. (In fact, *teaching* computer/DAW skills is yet another possible income area for the pedagogically inclined.) There are many areas to explore that don't require you to make a complete career change to at least test the waters. You just have to be willing to get a little wet. ■

*Blair Jackson is the senior editor of Mix.*

## Beinhorn Says



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# Studio Survival

BY DAVID WEISS

There's been a lot of anxiety lately over major studios closing. New York, Los Angeles, Nashville—each have their stories, from rental prices in New York to oversaturation in Nashville to producer-owned facilities opening in every canyon or beachfront property in L.A.

But before we lament the “death of the big room,” let's not forget that these things move in cycles: In the '70s, studios were rolling in the bookings, lockouts were common, bands stayed for months and budgets were huge. Then in the early '80s, with the advent of MIDI, the first predictions of the death of the recording industry came along, and

## Facilities Find Success In an Age of Downsizing By Carving Niches, Expanding Services

facility owners like Dave Porter of San Francisco's Music Annex shouted “diversify or die.” Studios bounced back, and then in the early '90s, with the advent of affordable digital multitracks and the rise of the project studio, the death knell was sounded once more.

Today, the worries are mounting again, as high-profile rooms have closed in Los Angeles and New York, with others rumored to be on the block. At the same time, new rooms are opening up and there's more audio being produced than ever before—for ringtones, for games, for high-res 5.1 re-issues. People continue to make music, just not in the same way they have for the past 35 years. Big studios remain, and they always will. But the survivors have to be smart, nimble and business savvy.

### SERVICE DIVERSITY

One strategy for success? Offer more under one roof. Increasingly, tough market conditions for two of New York City's largest recording facilities, Right Track and Sound on Sound, led those facilities' respective owners, Simon Andrews and Dave Amlen, to take the extremely unusual step of merging. The resultant entity, Right Track/Sound on Sound (RT/SOS, [www.rtrk.com](http://www.rtrk.com)), was formed in Novem-

ber 2005, and sees both companies combining operations at Right Track's 48th Street studios and massive, 4,600-square-foot orchestral live room on 38th Street.

“The change in the recording industry that led us to this merger is a decrease in the amount of work for the New York City recording community,” Chris Bubacz, general manager of RT/SOS, states candidly. “The record labels, specifically, seem to be working on few artists and even fewer in New York City. With this particular merger, we eliminated one location, Sound on Sound, and in basic economics, you cut down on your overhead. We had to take into account that we're going to come down on the number of rooms available, and we hope that we won't have to turn away too much work having less rooms, but at Right Track, there's a lot of raw space and so much potential here for growth. [Sound on Sound] had a very constricting lease and really not a lot of space to expand.”

As a result, the merged companies were able to retain all staff and can now book their studios—which include the SSL 9000 J-equipped Studio A, Euphonix System 5 all-digital Studio B, SSL 9000-based Studio C, affordable D1 and D2 production rooms, and the above-mentioned orchestral Studio A509—with a logically combined client base. “Over the years, Right Track had moved into more specific types of music,” Bubacz says. “They built the large scoring stage the likes of which there's really no place on the East Coast that you can work at for Broadway show cast albums and film scoring, but their record album work had started to fizzle out a little bit. Sound on Sound didn't have the capability of doing large Broadway shows or film scores, but we had expanded to do more and more music recording. Each studio owner looked at each other's business, didn't see an overlap, and said, “What a great idea. Put the two companies together under one roof and you should be able to maximize your booking potential.” For now, the strategy appears to be working, with Bubacz reporting a strong first-quarter '06.

Post facilities, which often interface daily with the ever-growing web of media production, are poised to broaden their services. “I would say I have evidence that entertainment producers are not necessarily spending less in total, but they are spending it for a wider range of distribution media,” points out Joe Caterini, executive VP, sales, of Post-Works ([www.pwny.com](http://www.pwny.com)), which provides comprehensive audio and video services, including surround and HD, from two large New York City-based facilities. “That makes it necessary for a facility to be diverse. The dollars might be there, but rather than putting all that money into recording and producing a record, clients might take that same amount of money and also put it into a DVD documentary to go along with that record or make a presentation for a Website.

“The result is that the entertainment industry needs to



make such a wide range of things to hit their market," he continues. "They can't spend more, so they spread it out on smaller pieces. At PostWorks, that even extends to in-store entertainment. We create the final product that will go on a small display in a Walmart. So facilities should want to hit people from many different angles. If clients are going to select you as the contractor to do the work, you better be able to deliver every component they need or they're going to be stuck shopping for 10 different people—or find one place that can do it all."

#### OFF THE BEATEN PATH

Other facilities are looking to see how they can cover more ground by themselves. One such studio is the forward-thinking Crystalphonic ([www.crystalphonic.com](http://www.crystalphonic.com)) in Charlottesville, Va., which has been constantly tweaking its business plan since owner Kevin McNoldy opened the doors in the summer of 2003.

"We are a multiroom, multifaceted facility that was built



*Joe Caterini of PostWorks, a one-stop post facility in New York*

feel that L.A. and New York studios can't pull off because they've got to stick to the paradigm."

With one of the major cornerstones of Crystalphonic's original strategy—locating in a talent-rich but underserved area—paying off, McNoldy recently decided to do it again with a remote mixing/mastering room in Orlando, Fla., an area he sees as brimming with undiscovered talent. He divides his time manning his facility and hitting the streets in search of more talent. "We have DigiDelivery set up from both locations, so if I'm mixing an artist [that tracked in Charlottesville], we can do it all with digital transfers over the Internet and can move more projects quickly. That way, I can log onto the computer and manage both places online, which is very exciting."

Whether the location is Virginia or Florida, McNoldy is not one to view the constant proliferation of quality home/personal studios as a threat to his business. "I don't believe it's hurt our bottom line; I think it's helped if anything," he states. "People can get okay results on lower-cost equipment, but they still need the experience of an engineer to make it sound right. There's a lot of bands that come in who can't do things from start to finish, and there's no reason we can't have a symbiotic relationship."

"It sucks if someone stays at home and does the whole thing, but we can get in on the food chain by recording drums, overdubs, et cetera. I'm promoting that we're the ones who can help them out; we're very proactive about reaching out to bands who are home recording. When people hear the actual vintage gear in process on their own projects as opposed to a virtual plug-in, they get hooked for life."

#### MASTERING OPTIONS

In the mastering sector, however, facility owners like Randy LeRoy of Nashville's Final Stage Mastering ([www.finalstage.com](http://www.finalstage.com)) are watching the progress of personal studios with keen interest and developing their own



*NRG's Jay Baumgardner brings his own clients into the studio.*

to cater to major record labels, but also to the artistry of Virginia and the surrounding regions," McNoldy says. "My first version of the studio was everything I had always wanted in terms of the producer's dream studio: the SSL console, all the outboard gear and large rooms. After that wore off, we turned the room into something that worked better for us sonically and in terms of workflow. We replaced the SSL with a Digidesign D-Control for a hybrid approach of digital and all the outboard we have.

"Because of where we're located, outside of the industry norm, we're able and willing to go out on a limb with equipment purchases and how we position ourselves. We looked at the market and obviously our clients, but then we looked at what's going to drive us and get us excited about working there. There's a build-it-and-they-will-come

counter-strategies. "I wouldn't say mastering is exempt from the advent of personal studios," LeRoy says. "As project studios started to develop and become higher in quality, soon you had people who would say, 'I just mixed your product. I can master it with a few pieces of gear and plug-ins.' Most mastering houses, of course, have high-dollar monitoring systems, converters, highly detailed listening environments and a mastering engineer's ears that can hear the whole spectrum and balance the frequencies."

As a result, LeRoy spends a large portion

of his time educating his current and potential clients on the advantages of working at a professional, purpose-built facility. "Education has never been as important a part of my job as it is now," he confirms. "People who are trying to master [their album] themselves but don't have the qualifications might not know about formats, bit rates and mastering principles, and they might think that just because they can pull up the sounds that it might be right. Clients can get me on the phone and talk to me not only about the booking, but the problems they're having

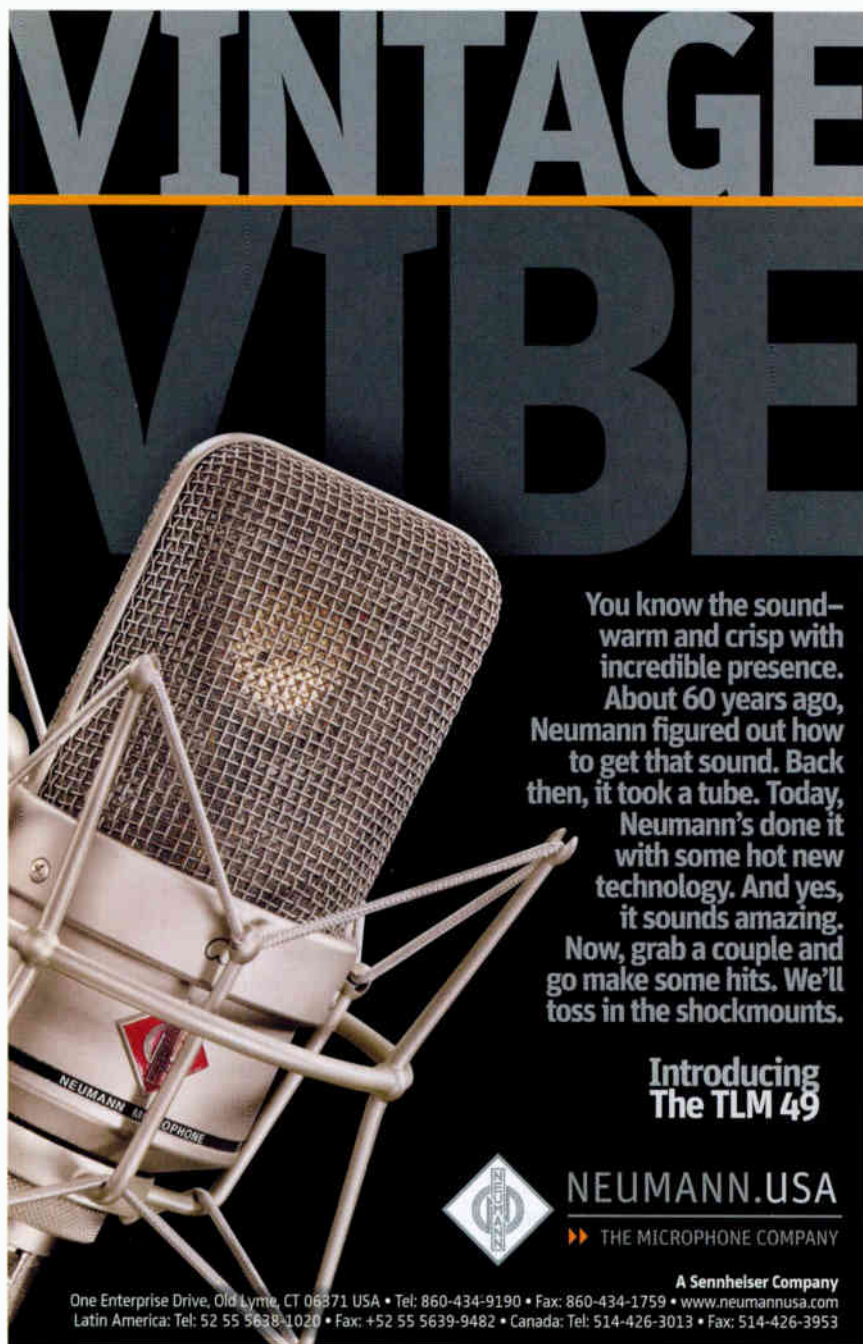
along the way with the mix process. That's where you really have to try and get your new clients in, by explaining the new technology—SACD, DVD-Audio—to them. They might not know what it is, but hopefully you can educate them about the new formats out there and they'll go with it.

"I also get involved with the universities here. I'll talk to classes at Middle Tennessee State University's recording program and meet with their students. In two or three years, those students will be out there working, need mastering services and, hopefully, they'll remember talking to Randy LeRoy. Answering questions on Web boards is also very important. A lot of people want to know how you do your work, and I tell them, 'This is what I do.' I'm the first to explain to people what I'd do to their song once I hear it, so if someone wants to send me a song, I'll listen to it, do a slight critique and spend the time with them to develop that relationship. Another avenue is podcasting, such as 'The Nashville Nobody Knows,' which I'm interviewed on and has had thousands of downloads. Aspiring singers and songwriters look to the Internet to find ways to make their music better, and that has been my biggest source for new clients and new people in general."

Diversity may be the big buzzword for studios, but LeRoy acknowledges that when it comes to mastering, the buzz stops here. "I think mastering facilities are a little more limited in the range of services we can provide versus a normal recording facility. Other kinds of services that we can try to get involved with are such things as providing FTP services for clients, not only doing stereo but surround mastering, and also offering DVD production and authoring. But our listening environment, our gear and the mastering engineer's ears are what clients are coming to you for. If you can make those your strong points, that will help you sell your facility."

### THE STUDIO NICHE

Even for the types of multiroom recording facilities that LeRoy is referring to that can diversify by adding anything from their own in-house mastering room to artist-management services, versatility may not be as effective as specialization. "We always went the opposite way of diversifying; I focus on a specific genre, which is rock and pop recording," says Jay Baumgardner, president of NRG Recording in Los Angeles ([www.nrgrecording.com](http://www.nrgrecording.com)). "You can't be all things to all people. You can't be a post-production facility and make records and this and that. I mean, you could, but would that make you great at everything? Probably not.



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## Studio Survival

"If you focus on a specific genre of music, whether it's pop or hip hop or metal, you have a depth of knowledge of the people who work in that. I think you're better off than being this thing that opens your doors to everyone who calls you on the phone."

NRG is an example of the growing number of facilities that have realized that they can help increase the number of bookings by being one of their own best customers. "I'm a mixer/producer myself, and I believe you have to generate some portion of your income as an in-house client," Baumgardner points out. "A third of the time, usually I have one of the rooms booked out to myself. If you're your own client a part of the time, you have a much greater chance of booking the studio. Plus, you have an understanding and pride in what your studio is because you're actually working in there instead of it just being a room with four walls."

### CHANGING COURSE

Even studios that think ahead and nail the fundamentals, however, may find themselves up against a combination of circumstances that make survival impossible. Today, George Walker Petit ([www.petitjazz.com](http://www.petitjazz.com)) is finding himself steadily booked for a large number of jazz producing/engineering projects, and not just at his facility, Walkerrecording, which he closed last September after four hard-fought years in the New York City recording scene.

The three-room facility was small but beautifully appointed and well-equipped with a rare Amek-Neve Media 5.1 64-channel desk, a pristine front end and Petit's deep talents. Furthermore, Petit had made sure to diversify his jazz-first client base by getting written commitments from two different advertising agencies for hundreds of thousands of dollars in commercial music work annually.

Smart planning, but unfortunately for Petit, Walkerrecording's big opening day was September 9, 2001. The economy was already treading water, and then the earth-shaking events of 9/11 hit the ad world hard. Within six months, both of the studio's guaranteed corporate clients were bankrupt, and Petit was in the unenviable position of relying solely on the notoriously tight budgets of jazz to stay afloat. With inexpensive personal studios below him and physically larger studios above him getting the highest-end work, Walkerrecording was caught in the middle.

"Where my studio was positioned in relation to cheaper and more expensive rooms, I didn't see the industry affording more income or more work at my level," he relates. "I was also creatively limited by

what my studio was able to do in terms of the physical size of the plant. It had beautiful equipment, but it was awfully small and I couldn't make it larger without spending money that I couldn't justify."

Petit points out that being a facility's CEO, CFO and star talent with world-class aspirations can also be extremely problematic. "You can't be a sole proprietor if you want to be successful. You have to have a staff with people who are managerial, business, promotions and marketing, and on the other side are your engineers and producers. I wanted to work creatively with all the talent, and then three days a week take off my 'creative' hat and just do business. Just let the business people do the business; the large studios are doing that, and I think that's why they're surviving."

For studio operators, the survival of the facility may need to take a backseat to the one thing that is even more important: the survival of the careers themselves. "A restaurant owner once told me, 'The two best days are the day you open and the day you close,'" says Petit. "It was a tough decision [to shut down], but I have no regrets because, creatively, I can do the work I want to do in nice facilities, pass the costs on to my clients and make better recordings. It was a damn good move to make. I don't have to clean up coffee anymore, and if channel 62 on the console goes out, I don't freak: They do!"

As with any industry where advancing technology is a major driver, the Golden Rule of staying in business is to maintain wide-open eyes and minds while keeping pace on as many fronts—both technical and emotional—as humanly possible. "These days, if you're still in the game, you're successful," Crystalphonic's McNoldy says. "It's doom and gloom all the time in the industry, and some of it deservedly so, but it's not as gloomy as the press makes it out to be. You just can't continue things the way they were and sustain for the future. If you're bright enough to open your eyes to what's happening today, you can find the signpost to where things are going to go.

"I'm trying to position myself in many different ways, not just as a recording studio, and have my fingers in as many pies as possible. But, ultimately, I think diversification and survival in the future is going to have to be sitting down and saying, 'What fulfills me? How do I take that and turn it into a business?' Because it's not just recording, it's about what works for you. Otherwise, there's no point in doing it."

*David Weiss is Mix's New York editor.*

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**30** | series





# Where Does the

While the theme of this month's issue is "Where's the Money?" and the emphasis is on the production community, it behooves all audio professionals to understand just where their "product" lands. Those who work in the 24-bit/192k world may lament the widespread adoption of MP3 playback and consumer compression, but as with the advent of the cassette and the Walkman, it cannot be ignored.

## The Big Picture

As of the end of 2005, music sales shrunk about \$2.5 billion from their peak in 1999. What's to blame? It's easy to point at illegal file sharing, but competition with other entertainment products (videogames, etc.) is also taking a toll. However, thanks to healthy, new revenue streams such as mobile apps, the industry is starting to come out of the tailspin: Last year's sales are only down about 8 percent from the previous year, and overall revenues are predicted to rise to \$15 billion in 2010, with the most marked increase in the online market. For now, conventional music media (aka CDs) still dominate the market.

MUSIC REVENUES IN NORTH AMERICA (BILLIONS)  
2005



STRATEGY ANALYTICS JANUARY 2006

## Barely Breaking Even?

Half of music consumers think \$0.99 is a "fair price" to pay for a single and another 20 percent think it's "a bargain." So why aren't online sites such as Apple iTunes swimming in money? The answer? Big cuts go to distribution and payments (40 percent). Online music subscriptions offer more profit for the distributor, but have yet to reach mass-market appeal. Structures will evolve as ringtones and mastertones grow even more popular and wireless carriers become more involved.

SIMPLIFIED MUSIC INDUSTRY VALUE CHAINS

|                       | CD      | Subscription   | Download | Ring Tone |
|-----------------------|---------|----------------|----------|-----------|
| Consumer spends       | \$14.00 | \$10 per month | \$0.99   | \$2.00    |
| Retailer              | 20%     | 9%             | 2%       | 35%       |
| Distribution/payments | 11%     | 2%             | 30%      | 50%       |
| Marketing             | 8%      | 50%            | 9%       | 4%        |
| Manufacturing         | 1%      | 2%             | 8%       | 1%        |
| Rights holders        | 30%     | 55%            | 65%      | 13%       |

Legend: ■ Cost/loss ■ Revenue  
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## Music Ownership in 2006

Despite concerted efforts from the RIAA and others, piracy hasn't gone away. It's estimated that nearly 40 percent of U.S. households online still use illegal P2P sites to acquire music. And although music consumers may seem indifferent toward the value of an actual copyright, they are demonstrating an increased collective conscience about stealing music.

According to a 2006 poll, when music listeners were asked if they cared whether the music they downloaded onto their computer is copyrighted, they showed ambivalence:

|                             |     |
|-----------------------------|-----|
| Yes, care:                  | 38% |
| No, do not care much about: | 61% |
| Not sure:                   | 1%  |

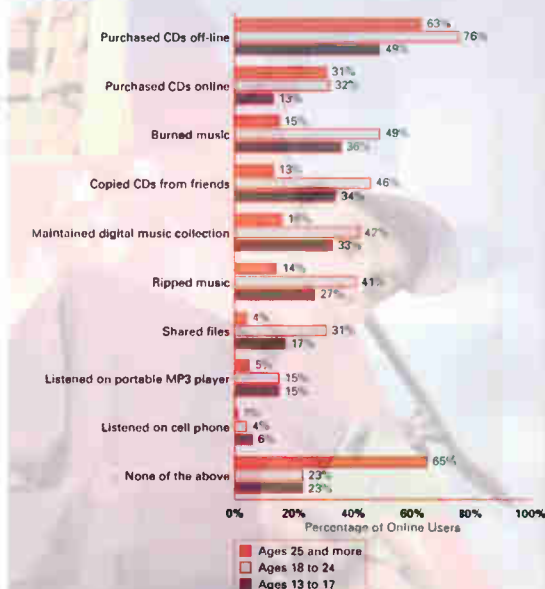
However, when asked if they considered if free downloads unauthorized by the copyright holder is stealing, they answered positive:

|           |     |
|-----------|-----|
| Yes:      | 80% |
| No:       | 16% |
| Not sure: | 4%  |

AP/ROLLING STONE POLL JANUARY 2006

## Raised on File Sharing

It's no surprise that young adults are the biggest adopters of digital music, with the 18 to 24-year-old group being the leaders in purchasing CDs both online and offline, as well as burning, ripping, sharing and maintaining digital music collections—though tech-savvy teenagers are not far behind.



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Sources: Strategy Analytics, JupiterResearch 2005 report: "U.S. Music Forecast, 2005-2010"; Recording Industry Association of America 2005 Year-End Statistics; The Yankee Group; AP/Rolling Stone poll, January 2006; Forrester Research March 2005 report: "The Future of Digital Audio"; Ipsos Insight; Apple Computer Inc.



# Music Go?

## Mobile Media Madness

Last fall, Apple and Motorola unveiled the ROKR, a mobile phone that holds up to 100 songs and comes with iTunes installed. The phone is offered through Cingular Wireless, which is planning a separate download service this year. As MP3-equipped cellular phones like the ROKR eventually surpass MP3 players in unit sales, new questions will be raised about licensing revenue streams, the role of cellular carriers as distributors and the value of a song.



## Music Discovery Methods

Although there are more ways than ever to learn about new music (most notably, promotion on prime-time television dramas), for the most part, listeners still learn about new music via traditional methods, including FM radio and word of mouth.

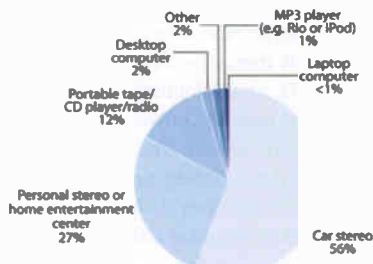
What's the main way you find out about new music these days?

|  |     |
|--|-----|
| FM Radio   | 55% |
| Music channels on television, like MTV or VH1          | 10% |
| Shows on network television, like ABC, CBS, Fox or NBC | 9%  |
| Friends  | 9%  |
| The Internet   | 4%  |
| Satellite radio  | 4%  |
| Magazines or other print publications                  | 4%  |
| Other  | 3%  |
| None   | 1%  |
| Not sure   | 1%  |

AP/ROLLING STONE POLL, JANUARY 2006

## Drive Time Is King

Lots of high-tech gadgets serve as audio devices, from MP3 players to laptops. But consumers still spend the most amount of time listening in the car.



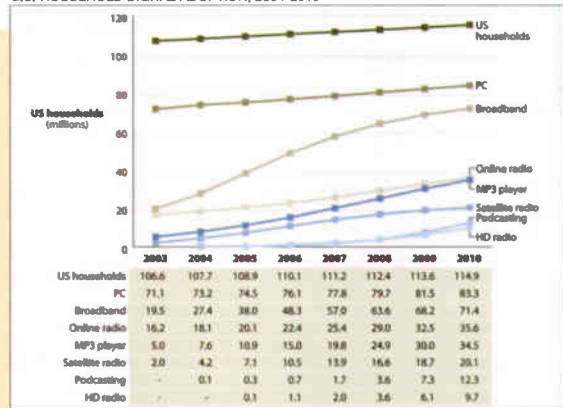
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## iPod, At a Glance

Number of iPods Apple shipped in Q4 of 2005: 14,043,000  
 Number of computers Apple shipped: 1,254,000  
 Apple net quarterly profit for same quarter: \$565 million  
 Percent growth in iPod sales over the previous year: 207  
 Number of songs purchased on iTunes as of February 23, 2006: 1 billion  
 Average number of iTunes songs sold to iPods: 20



U.S. HOUSEHOLD DIGITAL ADOPTION, 2004-2010



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## Audio Adoption

Despite reports in recent years sounding the music industry's death knell, it's obvious that new music channels and consumer patterns are on the rise, creating more opportunities for revenues, with HD and satellite radio services and podcasting showing the biggest growth potential. Note to entrepreneurial spirits: As podcasts grow in popularity and quality, "monetizing" is sure to follow.

## Ringtone Explosion

It would be hard to overestimate the popularity of ringtones: Some project that by 2010, ringtone sales will grow as high as \$900 million—in other words, six percent of U.S. consumer music spending. One quarter of mobile phone owners have downloaded ringtones, marking a fourfold increase during the past 12 months. That's 30 million people in the U.S. alone. By the end of this year, 95 percent of wireless subscribers will have ringtone-capable handsets. For an idea of the audience potential, just look across the pond: Last year, a mix of the wildly popular "Crazy Frog" ringtone (set to a remix of the "Axel F" theme from *Beverly Hills Cop*) topped the UK *music* charts for weeks, outselling contenders like Coldplay four to one.

Interestingly, ringtone consumers are more likely to have paid for the tones they download, despite higher fees than for a full-length, higher-quality version of song.



# The Versatile Engineer

BY KEVIN BECKA

Today's lean-and-mean studio economy is a scary world for freelance audio engineers—even for established mixers who in the past had little trouble finding work. Nowadays, as budgets droop and D.I.Y. is often the order of the day, once-busy audio pros have to find new avenues to the dollar. No, the major bookings are not going away; there will always be a need and budget for big sessions. But large-scale studio sessions are fewer and far between, replaced by freeze-dried tracks in production and the abundance of home studios powered by inexpensive and ever-better-sounding gear.

## Freelancers Need to Find Talent, Assemble a Rig and Hustle for Gigs

When the phone's not ringing, how do engineers respond? By becoming more versatile than ever, which means expanding their areas of expertise and, perhaps even more importantly, broadening their focus. One answer is to become a full-service solution for their clients. Being a jack-of-all-trades is the way to attract more work. New technology powered by the Internet gives professionals the ability to network, find clients, work and send files quickly and cheaply online. Some engineers have found that being a talent scout and taking on more of an A&R role has driven business. The bottom line is that versatility and a wide skill set are essential.

### BRANCHING OUT

"I think that there are a lot of good people who aren't working enough," says Maureen Droney, executive director of the Recording Academy Producers & Engineers Wing. Droney finds that the key is for engineers to be more proactive in their search for work. "Now it's becoming much more desirable for labels, with their shrunken A&R staffs, to rely on independent labels and producers to find talent," she says. At the Recording Academy Pacific Northwest Studio Summit in Seattle, held in early March, engineers Mike Clink and Joe Chiccarelli spoke about their roles in developing talent; after the panel, they were out in clubs in search of bands of interest.

Shifting from label work to a more indie base has given others chances to stretch. "I've always wanted to do more work in production," says Miami-based engineer/producer Charles Dye (Ricky Martin, Gloria Estefan), who has found that the drop in major-label work has prompted more opportunities for him to develop as a producer. "I was doing it in my spare time, even back in 1997, but still had to squeeze it in between engineering jobs; I didn't have time to develop as a producer." Now, Dye is able to develop bands that can benefit from his years of expertise, and he's found the time to work on his skills. "When you're focusing on a long project as a producer, you have time to develop."

New York City-based engineer Dave O'Donnell (Eric Clapton, James Taylor, Herbie Hancock, Keb' Mo') started in 1984 at Power Station and has seen the business change drastically since then. For him, the clients have shifted since 2000, but work has been steady now that he's opened his own mix room. "It's mostly been label work, but there is independent stuff and I've also been doing independent production."

Droney, Dye and O'Donnell's comments point to the fact that in all transitions from old to new business models, innovation is key. Necessity is the mother of invention after all, and when people are forced to be resourceful, they are usually at their best, especially creative professionals such as engineers and musicians. One trend emerging from this dilemma is that everyone who is working has some kind of mix or recording rig they can rent or offer to clients as part of their "package." The truth is, if you want to work, then you've got to have a rig. As much as every engineer would like to work in a facility for an entire project, the budgets will not support it. And the one who can offer those same services, often folded into the cost that someone would have paid for an engineer or musician alone, will get the brass ring.

One of the more creative spins on this angle is Electric Landlady Studio, the brainchild of 20-year veteran engineer/producer Cenzo Townshend (New Order, Blur, U2, Echo & The Bunnymen, The Cranberries). Based out of the UK, the studio is a rolling production rig featuring an Audient ASP24 console; KRK monitors; 24-channel Neve sidecar; Neve 1066 and 1272, and Telefunken V72 preamps; a wide variety of outboard gear and effects; studio chairs; DI boxes; and mic stands and cables. The rig allows him to offer his services across the continent and gives clients the opportunity to work wherever they'd like.

Of course, as new opportunities arise, others fall with studios closing at a startling rate because of the downturn in budgets and the corresponding decrease in work for larger rooms. Just in the past six months, we've seen some



major rooms in New York and L.A. close or, in the case of Sound on Sound and Right Track studios, merging their resources. On the upside, East West has moved into the space once occupied by Los Angeles' Cello studios to have a space to expertly record their samples. Irony, indeed.

### LONG-DISTANCE COLLABORATION

Many engineers have found new and unexpected opportunities through Internet technologies that allow quick and inexpensive communication and movement of data over long distances. O'Donnell has found that the Internet has allowed him to work with people he would not have had the opportunity to work with in the past. "I'm mixing a record now for clients that are in Europe," he says. "They just send me the files, I mix it and send them an MP3 and they listen. I've never met these people, but they're great to work with." He finds that another factor is that the time pressure is not as frantic because the client is not paying a studio, but O'Donnell is quick to say that he values a traditional facility's atmosphere and professionalism. "I still prefer to go to a great studio," he says. "We definitely don't want them to go away, because, really, it's the best place to do everything."

Dye has also found that long-distance work is part of his new mix of revenue. "There's been a fair amount of long-distance projects," he says. "It might be from someone in Australia, Germany, upstate New York or wherever." For Dye, he's found a way to work as if the client is right in the room, despite the far-away factor. "I've been using the [Source Elements] Source-Live plug-in in Pro Tools that allows you to stream directly from your Pro Tools session to anybody you'd like," he says. This way, Dye bypasses the asynchronous process of bouncing a mix, converting it to MP3, putting it in an e-mail and then having the client download it and listen, often waiting for a reply for an hour or more. "With Source-Live, it's as if they're sitting on the couch." As an interesting aside, Dye



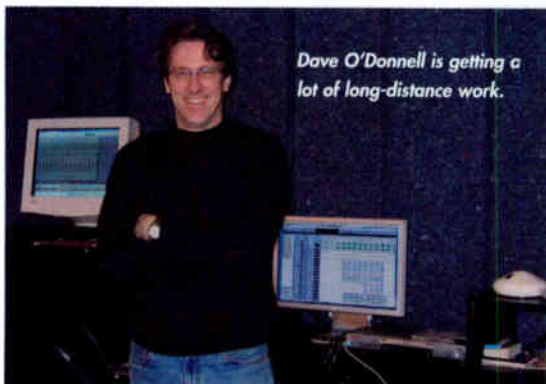
*Genzo Townshend's rolling Electric Landlady Studio can be set up wherever a client wishes.*

says the thing that's most helped him get a good product at home is affordable acoustic treatment. "It used to be extremely expensive to treat your studio properly," he explains. "But when the higher-end companies started to realize there was a new market, they created new lines of mid- to low-level-priced products that do a good job."

### ENTER THE MUSICIANS

Part of the shift in engineer work is due to the fact that musicians who once brought their instruments to the studio or soundstage are now recording themselves at home, and it's not just direct input. Nashville drummer Tony Morra ([www.downtownbatterie.com](http://www.downtownbatterie.com)) decided to invest in his recording career by partnering with an engineer friend who helped him to dial in his room and buy the right gear. Since then, Morra has developed his engineering chops to expert status. "As more projects went into smaller rooms and the home studio situation, drums were the first thing to go. So work slowed quite a bit," he says. Morra found that the reaction to him recording his own tracks wasn't always positive, but that didn't stop him from developing as an engineer. "Some engineers have flipped that a drummer is doing their gig. The reality for me is that if I want to stay ahead of the pack and earn an income as a player, it's no longer just about playing drums; it's about being a complete musician and a recording technician."

Musician/engineer/producer Jeff Bova (R. Kelly, Backstreet Boys, Luther Vandross, Nick Lachey) moved from a longtime base of operations in New York to L.A., where he has opened his own room and is doing more and more engineering. "With programming moving more into the hands of each individual doing their own work, it started shifting out of the hands of the hired guns," says Bova about his experience in New York and his reason for moving. Bova has a number of friends who have also relocated from New York to L.A. because the work is better. Like Morra, Bova has found that migrating into engineering is a natural outgrowth of the way production





## The Versatile Engineer

has evolved and a necessity if he wants to stay competitive. "Keyboards are where I started, then programming that led into arranging and then into production," he says. "By virtue of working in Pro Tools, I've become an engineer." Bova finds that most of his engineering work comes through artists he's producing or clients who send him files through the Internet.

### THE SILVER LINING

There are some conclusions we can draw from this, and they're not all negative. If

there is a big winner, it is the music. New bands and new musical opportunities are being born by the spirit of independence, and engineers are right there in the mix. "Independent artists aren't really driven to be the next Linkin Park because it's so hyper-unrealistic to think you'll be them because even Linkin Park isn't selling like they were five years ago," muses Dye about what he sees evolving from the ashes of the downturn. "What I see happening is that the economy has shifted the creation of music back to



Musician/engineer Jeff Bova relocated and set up shop in L.A.

the artist, and it's now less about making a product and more about making music. The people who stick it out will be the ones who end up on top."

Droney believes the recipe for success goes back to the same things that made engineers successful in the past. "I think that to be successful today takes what it took back in the '50s and '60s, when you had to have a real passion for what you did and you had to be tireless and proactive about it. In the '80s or '90s, there was a lot more leeway to get a project that had a big budget and stumble your way through it. There were a lot more records being thrown up against the wall and a lot of money out there. It's much more like the early days in the actual fact of recording and breaking artists."

### ACROSS-THE-BOARD CHANGES

With all this shift in job focus, where does the newcomer fit in? Entry-level pros who are versatile and have a variety of skills will always be in demand. With so many home rigs, there is an expanding market for freelance troubleshooters and maintenance engineers. It's not in the artist or producer's best interest to be the jack-of-all-trades. As always, it's about getting your foot in the door. In the old model, it was as a runner; in the new model, it might be a different gig, but it's the same game. Starting at the bottom gets you access, and after that, your own ingenuity and dedication will decide your level of success.

As for the pro, it means hustling more, being proactive, offering a full-service package and even developing talent. It can also mean steering the client into a situation where, despite the conventional wisdom of doing it at home or on the cheap, the old tried-and-true simply works better. O'Donnell believes that for some projects, booking a big room can actually save money and make a better-sounding record. "Some clients think a big room is too expensive," O'Donnell says. "Yes, it costs more, but you get it done quicker, stuff works, everybody's happy and they play better."

Whatever the situation, finding the elusive answer starts with possessing a broad body of expertise and new and innovative ways to apply it. ■

Kevin Becka is Mix's technical editor.

An advertisement for Tannoy Precision Active Studio Monitors. The main image shows a large, oval-shaped studio monitor with a prominent tweeter and a large woofer. The background is a blurred image of a recording studio. The Tannoy logo is in the top left. Below the monitor, there is a list of features and a section for 'ACTIV ASSIST' software. At the bottom, there is contact information for Tannoy in the UK, North America, and Germany, along with a table of phone and email numbers.

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World Radio History





# Credit Where Credit's Due

BY MAUREEN DRONEY

For producers, engineers, musicians and songwriters, proper crediting is the lifeblood of a creative career. It's how the world knows what you've done, and it can mean the difference between a ringing phone and a silent one. Correct crediting also facilitates royalty payments and determines eligibility for awards—including the GRAMMY®. Recently, as the music industry began reinventing itself and its way of working, both improper crediting on liner notes and the lack of crediting on downloaded music have become important issues.

Back in the '70s, '80s and '90s, extensive liner notes—with lyrics, credits and acknowledgements—were the norm. During those decades, the music business was less fragmented, and compiling accurate credits was relatively easy. Fewer people were generally involved in a project, and their roles were usually more defined: artist, musician, producer, engineer, assistant engineer/tape op. In the studio, the assistant engineer handled project record-keeping. Often, a production coordinator (paid for out of the album budget!) also kept track of information.

## BAD! IMPROPER CREDIT

Today, we have much more data, much less time and job descriptions with lots of hyphens; i.e., musician-producer-engineer-Pro Tools operator. Credits, now often hastily assembled after the fact by someone not intimately involved with the project, are prone to errors, omissions and incorrect job descriptions, often leading to confusion down the line.

A credit on a recorded piece of music is the permanent record of each individual's contribution; the thought put into it should reflect that. Someone who merely presses Play and Record on a DAW doesn't merit the same title as someone who has worked for years to learn the art and craft of engineering. Likewise, a friend of the artist who provides moral support doesn't deserve equal billing with the producer who chose songs, handled the budget, rehearsed the band and produced the vocal.

"The credit information in the liner notes provided with the CD, LP or single package is what we rely on to verify

GRAMMY nominees and award recipients," comments Diane Theriot, The Recording Academy®'s senior VP, awards. "If a producer, engineer or songwriter is not properly credited, or is left off the credits, his or her recognition in the GRAMMY Awards process can be directly affected."

So whose job is it to make sure each audio pro on a project gets proper credit? Generally, an album's producer has overall responsibility for the project, including submitting credits to the label. The artist also has input. While it's optimum to clarify your role at the beginning, that's not always possible. A song or album can go through a lot of permutations as it makes its way to final release, and a participant's role may change in the process. Confirming your title with the person in charge, be it coordinator, producer, executive producer or artist, is a good idea, but even that may not be enough.

At Nettwerk Producer Management, production coordinators are responsible for confirming that credits for the company's clients are in order. Nettwerk's Martie Muhoberac says, "The actual terminology for the crediting is delineated in our clients' deal memo [for producers and mixers receiving a royalty], and at the end of the project, the coordinators follow up on that. For non-royalty-receiving clients [such as engineers receiving a fee], we send correct spelling and credit info to the A&R department and artist management, and usually ask for a label copy or other confirmation that our client's credit will be correct. It's standard practice for us that a coordinator doesn't close the project's file until he or she has seen the label copy and confirmed that both the credit and the spelling of everyone's name is correct."

Those not fortunate enough to have coordinators working for them would do well to be politely proactive to get confirmation from the person in charge on any given project.

## WORSE? NO CREDIT

The widespread lack of crediting on downloaded music is a larger and perhaps even more serious issue. How will anyone know that you've worked on a song or album that has no accompanying liner notes?

"With the steady shift of music sales to online delivery sources, it's important that online services supply a source for credits, as well as lyrics and liner notes," says Miami-based producer/engineer Eric Schilling. "iTunes is one of the services that has started to supply this information in the form of PDF booklets [called digital booklets], which is a step in the right direction."

Producer/engineer Joe Chiccarelli adds, "There's that 'wow' moment when you first hear a track and check the liner notes to find out who produced a particular track or who played that great bass part. It's a thrill to discover a new sideman or producer who makes a truly unique musical statement. Without access to that information, some record-making magic is lost."

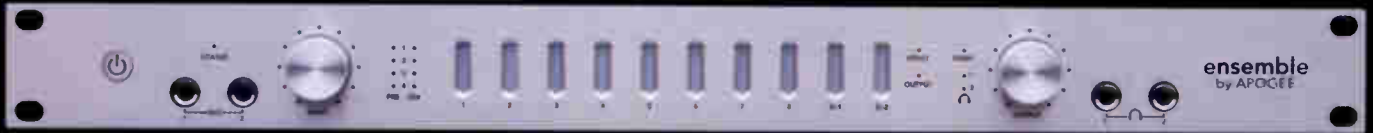
"Just as producers require in their production agreements that labels use 'best efforts' to include credits in CD packages and trade ads," Chiccarelli continues, "producers may have to legally ask that labels use best efforts to set up sites where credits are viewable for downloaded releases. Artists may also have to demand sites where credits are available to fans so they know who the bandmembers are, as well as who was responsible for writing lyrics."

Including digital booklets on some iTunes offerings is indeed a step in the right direction—now it needs to become standard practice. Meanwhile, the integration of metadata into CDs and streaming audio has made it common for "Now Playing" song titles and artists' names to be displayed on radio receivers and CD players. Couldn't those displays also provide a Web address where the rest of the information—credits, lyrics and more—can be found? Of course it takes time and money to provide this information. Everybody knows that these are tight financial times for the music industry. But for those whose career success depends upon recognition of their contributions, it's time to start lobbying for the inclusion of credits as a standard practice. ■

*Maureen Droney is the executive director of the Producers & Engineers Wing of The Recording Academy.*



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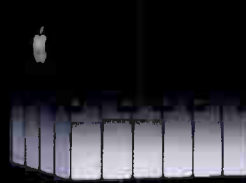
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# Live Sound Assets

BY KEITH CLARK

First, the good news: Worldwide ticket sales for concerts and special events reached \$3.1 billion in 2005, an increase of about 11 percent from 2004 (courtesy *Pollstar 2005 Concert Industry Business Report*). The not-so-good news: The actual number of tickets purchased decreased about 6 percent, meaning that the larger overall sales figure for last year probably has more to do with higher ticket prices than with audience attendance.

It's not news to owners and management of SR companies that theirs is still a competitive business environment. The figures above demonstrate, in a very general

## SR Companies Must Know Their Strengths Before Expanding Into Specialized Markets

sense, the touring market's complex and "at odds" nature, yet SR companies do more than just supply a rig and crew for top-ticket shows. Are there revenue growth opportunities for live sound equipment/service companies?

Recent in-depth discussions with diverse SR providers, all of whom have spent decades carving out a living in live sound and related professions, indicate that there are plenty of prospects for growth. Fixed installation (churches in particular) remain promising, and there are myriad other ways of growing revenue.

First, though, it's important to understand that the live sound market doesn't comprise just one type of company; rather, it runs the gamut, from the very large, major touring companies that primarily serve the mainstream concert market to very small regional companies that take care of virtually any audio need within a limited geographic area. And then there are companies of every size in between. Add in companies that specialize in certain types of work, such as corporate or theatrical, and it's a wide swath indeed.

It's also important to note that there has been increasing fractionalization within the entertainment industry in general. Years ago, who would have thought a monster truck rally,

pro wrestling match, roller derby, etc., would demand concert-caliber audio (as well as video and lighting) to bolster the "wow factor" of their productions. This trend has been nothing but great for live sound providers, creating more opportunities to keep their systems and people busy.

### TAKING STOCK

Although there are numerous paths to take to realize revenue growth, an SR provider should first look at what the company already provides. Michael MacDonald, president of Pilot Business Strategies (Thousand Oaks, Calif.), a consulting firm serving audio companies, suggests capitalizing on existing strengths. "Look at the core issues of importance in all shows requiring live sound reinforcement; for example, what's going on right now with wireless systems, where there are emerging and quickly escalating challenges," he says. "The management of RF operation, particularly at larger events, is an area that seems pretty obvious. These events are soon going to require a structured management effort, where all RF users on-site will have to register their systems with someone qualified to administer this effort, police it and provide specialized services like spectrum management. Many live sound companies are quite capable of filling this need, and it will provide a good return.

"And it becomes even more important when you go to an international level, where governments could soon be charging wireless users for access to portions of the frequency spectrum," he continues. "A shrewd RF manager could save a lot of money in these situations, minimizing the number of wireless channels needed and then managing it well." MacDonald mentions another niche that's usually "stock in trade" for most sound companies. "There's room to carve out a profit by providing system-tuning services," he says. "Night after night, live sound companies are out there tuning systems, and they learn to do this quickly, efficiently and correctly. On the other hand, systems contractors commission a system maybe once a month or so, and as a result, sometimes they aren't nearly as proficient or effective at [system tuning]. So live sound providers can look to leverage their system-tuning expertise in support of contractors because they already have the trained staff and equipment in stock. This could be potentially lucrative, say, charging a fee of \$1,500 to \$2,000 for the standard tuning of a single system."

At the same time, some aspects of concert sound work predicted to boost revenue opportunities haven't quite panned out as anticipated; for example, the recording of live shows. Ralph Mastrangelo, VP of Clair/Showco-Nashville, says, "It's a little easier to record live shows in a cost-effective manner now, but it would be a stretch to call



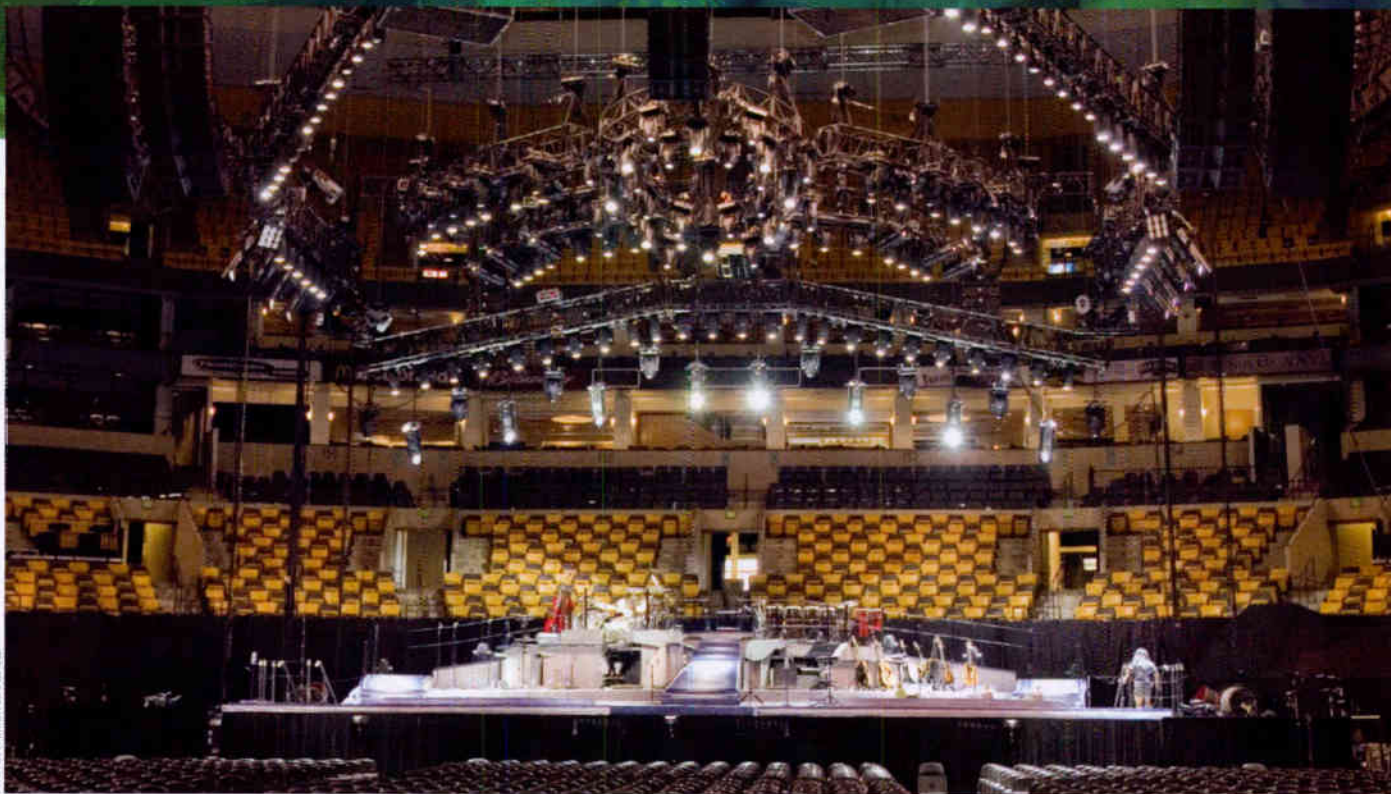


PHOTO: PATRICK SPANFIELD

that a revenue stream. Rather, it's more of an additional service of value that we can offer clients, and because this is a service business, it's important."

Jack Boessneck, executive VP of Eighth Day Sound, a large touring company based in Cleveland, Ohio, echoes the point that smart growth can be attained by first looking inward. "Realize what assets you have now. Run a SWOT [strengths, weaknesses, opportunities and threats] analysis of your current business and translate that into complementary areas, working to leverage what you already do well to areas that might have a need."

### FINDING NEW REVENUE STREAMS

After running a thorough "company examination"—determining core assets and clients—many sound companies are taking their current strengths and "tuning" them to possible new clients. Gary Gand, co-owner of Gand Concert Sound (Northfield, Ill.), advocates creative thinking: "All around any live audio company, there can be dozens of venues that need sound, but a lot of times, they don't know they need it." For example, he points to the Chicago Botanic Garden near his shop, which has grown to be a world-class organization, occupying more than 100 acres of property and hosting fund-raisers, guest tours, lectures, receptions and even weddings. Yet management hadn't considered the possible advantages of sound reinforcement to enhance many of these events until Gand approached them.

"I stopped by one day and pointed out that they have a lot of needs for sound systems, and eventually, they came to agree with me," he notes. "This process started with a small, portable rental system and has grown to several portable systems that they now have available on-site. We've sold them these systems, but it could just

as easily be a rental deal and perhaps even accompanied by an additional staff/service agreement. The point is that we realized some growth by recognizing the need for sound of another local organization."

Some tips? "Identify a potential facility and then get out your legal pad and list out all of the possible uses that facility could have for sound and ways they can benefit from adding sound reinforcement," Gand advises. "Then approach the management armed with your information. Regarding possible facilities, be creative, open your mind. Museums, parks, community centers, roller rinks, bowling alleys, the local Little League—just keep your eyes open as you drive around town."

So how about getting into fixed installations? After all, there's a church on every corner and tons of commercial facilities that could benefit from a bit of Gand's creative thinking when it comes to sound, right? Well, not so fast. It's true that numerous sound companies have made successful forays into fixed installs, but it's not as simple as it might appear. Although many of the larger touring companies now also provide installation services, these operations are often set up as a different department led by individuals with long-term experience in systems contracting.

In other words, the install business can be its own world, far removed from live sound. For example, most states in the U.S. require some form of license and bonding to qualify for work in the permanent install business, points out Bruce Main of Vector Corp., a manufacturers' representative. There are state codes to follow and, often, local ordinances, as well. Inspections are a norm. Labor issues are very different. Ditto union issues. Insurance is yet another concern, not to mention a different financial model, where a single project can tie up valuable capital

for months on end.

This is not to say that pursuing installation business is impossible; rather, it's best to walk into the situation with eyes wide open. The pro audio industry is full of horror stories about successful live sound companies that have been decimated by pursuing the perceived nirvana of install riches.

"Our company has separate rental and install departments and they really don't overlap except for some minor equipment issues. The rental guys never set foot on actual install projects; the customers, politics and time frames are totally different," Gand says. "Unless a live sound company is very liability-tolerant with good insurance and smart people who really understand the contracting world, I really don't recommend getting into it.

"However, and this gets back to taking advantage of what a live company already does well, I do advocate offering additional services to the more traditional install customers," he adds. "So instead of walking into a local church and trying to pitch them on a new installed system for their sanctuary, instead offer to sell or rent them equipment that will supplement what they already have or that allows them to go in a different direction."

## GET INTO THE CLUB GIG

A continual trend in the SR world is local nightclubs installing higher-end, state-of-the-art pro gear—sometimes as high end as the consoles and P.A.s carried by stadium tours. A business-savvy SR company could advise these club owners on the proper gear to install, especially when the acquisition must suit a club's troublesome acoustics and limited budget.

Large-scale touring company Rat Sound (Oxnard, Calif.) joined the installation market by focusing on clubs that host live music acts. "We're seeing what I call a 'Hard Rock Café approach' propagating these venues, where they're wanting to offer much the same types of systems we send out for touring," notes company co-founder Dave Rat. "There have been a lot of new technology developments that these venues want, and there's pressure from artists and management to stay competitive with what's on tour and in competing clubs. And that's where we come in with our expertise with this gear and technology, along with an understanding of what is liked by bands and sound engineers."

The company offers what Rat terms "parked" touring systems, which can be

put into place within the venue much like a portable system, but includes items such as arrays flown in accordance with installation codes. It's a best-of-both-worlds approach, and one where upgrades don't require major structure and infrastructure changes.

"If you need to work on an amp rack, just unplug and roll it out, or replace it with another one. If a band wants to bring in its own system, just unplug the house system and move it out of the way," Rat explains.



"It's also no problem to patch additional elements into the system—that's what we all do on the road."

On the regional live sound level, there are more fairs and festivals to serve than ever before. Positioning for contracts for any of these events largely comes down to one smart practice: networking. Identify the organization's key players and/or sponsorship groups, go to their meetings and fundraisers, and start talking.

"Your quality of work is the only advertising you should need to do," states Teri Hogan of Mico, Texas-based provider Sound Services. "Serve people well, provide the best sound you possibly can each night out, and you reap loyalty of repeat customers in addition to word-of-mouth endorsements among potential clients."

Eighth Day Sound's Boessneck picks up the thread: "Do your customers read the paper? Do they look at the Yellow Pages? And even so, are they going to call you based on an ad? Or is the better answer to get out there and meet the right people face to face and sell your services?"

Hogan notes that her company has seen an increase in corporate audio work via a liaison cultivated with an area A/V company specializing in the corporate market. "We're also doing more fairs and festivals," she adds. "One of the specific areas where we've been adding a new festival each year is the Celtic music market, which has become huge in our region. Early on, we were contracted to handle a few shows, did them very well,

and as a result, came to be recognized as specialists in understanding how to handle this type of music. We've worked hard to meet the specialized needs and expectations, which has resulted in being at the top of the list for supporting the growing number of Celtic events."

## ROOM TO MOVE

We opened this discussion with some large, relatively unrefined numbers on last year's ticket sales, but let's take a more fine-tuned look to see where the market is headed. At Pollstar's annual Concert Industry Consortium (CIC), held this past February in Las Vegas, keynote speaker Michael Rapino, head of concert promotion giant Live Nation (formerly Clear Channel), pointed out that only 29 percent of the U.S. population attended a concert in 2005, with only 4 percent of that group attending two concerts and just 2 percent attending three or more concerts. He also pointed out that only 1 percent of U.S. consumer entertainment spending went to concerts.

"The good news is that concert consumer spending is miniscule compared to total entertainment spending, so there's a lot of room to grow," Rapino noted. The question for live sound providers is how to help encourage this growth.

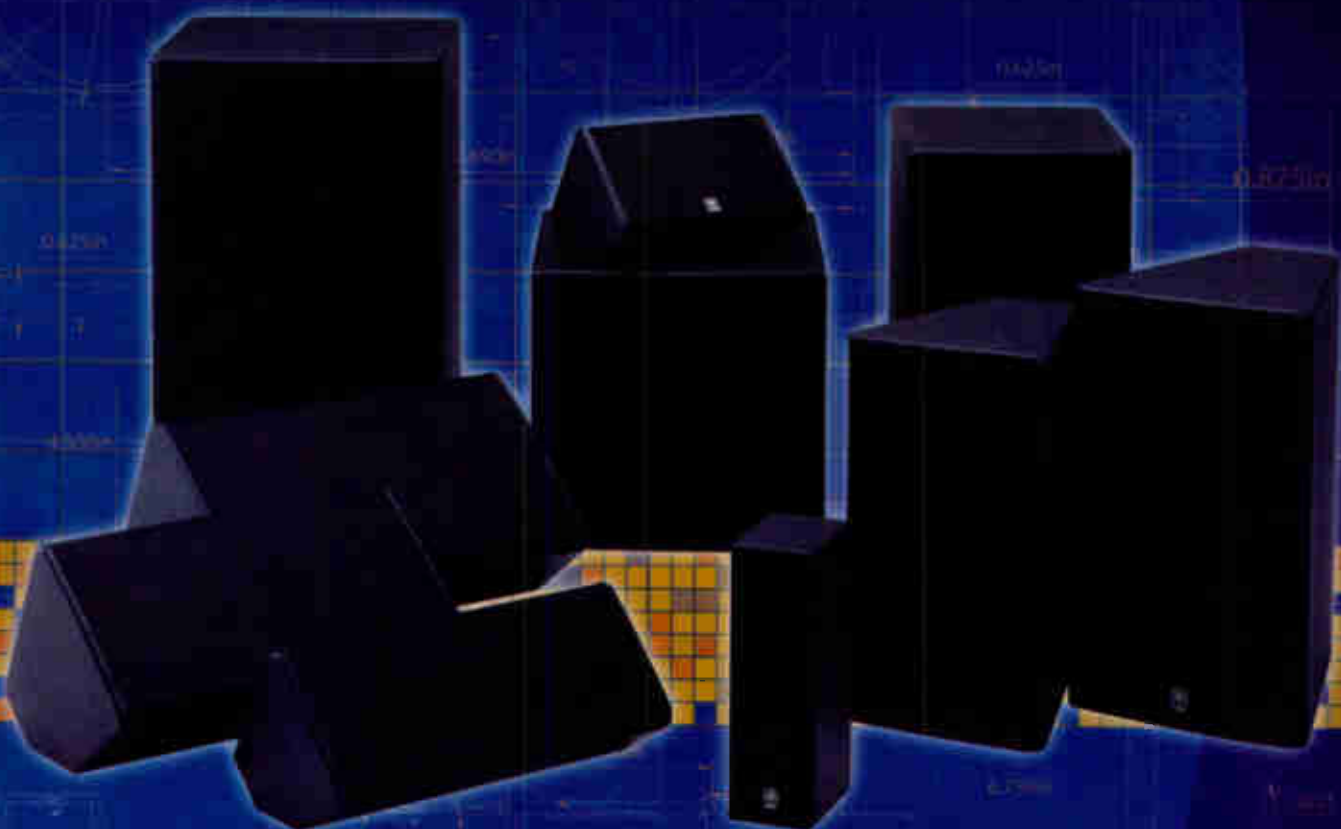
David Scheiman, a 30-year concert touring industry veteran who now serves as VP of tour sound for JBL Professional, believes that the answer comes primarily from what sound professionals should already be doing as opposed to miraculous business plans. "We need to ensure that every show we serve has the appropriate sound level, spectral balance and coverage throughout the listening area, appropriate to the program, content, listening space and the expectations of the audience," he says. "Every show we do is vital, and requires care and attention to detail to give the audience the best they can get. Or, we can treat every show as a chore, let our egos get in the way and contribute to a nationwide trend of not wanting to go to a show again because it didn't sound very good."

"The fact is that the public regularly gets a better audio experience from their home systems, in their cars and at movie theaters than they do from a live show," Scheiman says. "Who's fault is that, and who's going to do something about it?" ■

*Keith Clark is a freelance writer/editor specializing in pro audio. He can be reached at keith.b.clark@comcast.net.*



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World Radio History





# Tools of Engagement

BY MEL LAMBERT

Audio hardware and software manufacturers do not exist in a vacuum. They are as much a part of the industry as the talented artists who tweak, abuse, stretch and "play" their offerings, and as such, they respond to myriad influences that permeate the marketplace. Manufacturers inhabit the supply side of the equation, and while they often merely respond to the demands of engineers, producers and artists, other times they react proactively ahead of a demand, coming up with solutions where nobody even knew there was a problem, let alone a new solution. In this sense, pro audio is just like any other industry.

## Audio Equipment Makers Must Strike the Right Balance of Science and Art, Economics and Innovation

But in many ways, the audio industry is different from others in the tech sector. Where else do the "users" pay a premium for 50-year-old technology while they balk at a \$499 price tag for the most sophisticated multi-effects software plug-in? Where else do facility owners lovingly refurbish a single classic console module to feed last month's newest CPU upgrade? Where else would an artist insist on a 50-year-old mic over the latest re-creation tuned in a brand-new factory?

Yes, our hybrid hardware/software world is relatively unique, and as such, manufacturers face constant challenges in assessing where, when and how to bring a product to market. While boutique hardware manufacturers face vastly different development paths from their software counterparts, they deal with some commonalities determined by the costs of raw materials, wages and other business costs.

The pro audio market in North America can be estimated at approximately \$2 billion. With such revenue potential at stake, how does a company secure its fair share of the market? Despite what we might think to the contrary, ours is a highly competitive industry that combines a unique admixture of artistic creativity with Economics 101. And the rules of engagement are dramatically different for

dissimilar product offerings. A company focused primarily on software products has a different financial profile than a company that innovates hardware systems. In general, developing software is a front-loaded but continually evolving process, with user feedback and platform enhancements making it imperative that the firm stay ahead of customer demand. Development times can be quick and the costs of production far less than for hardware.

Hardware systems, on the other hand, require a substantial commitment of work hours and investment dollars, usually involving a quantum development toward a brand-new offering—a process that can take years rather than months—and then the implementation of updates to keep it cost-competitive and ahead of the direct competition. Major upgrades need to be planned carefully because, with longer lead times, any prediction about required features, functions and target pricing needs to be as accurate as possible. Software can be revised in just a couple of weeks and shipped/downloaded just as easily.

### PRE-PRODUCTION: R&D

With the increasingly rapid pace of technological change, whether in hardware or software, a strong foundation in R&D can spell the difference between surviving as a manufacturer and shutting the doors.

Eventide has evolved from a 35-year-old hardware-only company to one that offers a mixture of dedicated DSP-centric products and TDM plug-ins, which were created to support the company's users who had migrated to Pro Tools and other DAWs. Currently, R&D accounts for approximately 25 percent of the firm's gross profit. New hardware can take up to two years to develop from an initial idea; enhancements are innovated more rapidly, but the process needs to be appraised carefully. Eventide continues to manufacture its products in the U.S.

TC Electronic, the U.S. distribution division of the multinational TC Group, defines product features for the North American market. Like Eventide, TC offers both hardware signal processors and plug-ins; by coincidence, this division also enjoyed a 30 percent turnover growth during last year, with close to \$90 million per annum from approximately 450 employees. Of critical importance, company sources stress, is the fact that virtually all of the firm's software and firmware has been written in compiled code to run on Motorola DSP chips and engines. This "Write-Once/Use Many Times" design concept means that once the code has been optimized and de-bugged, it can be transported reasonably easily from one intended platform to another—a major cost-savings in R&D and support staff. (Eventide and other mixed-use manufacturers support a similar strategy; in fact, TDM-format plug-ins use Motorola-



complaint DSP instructions to do their magic.)

Turning to the heavy-industry sector—the console manufacturers—there is little doubt that DAW-based offerings are signaling the demise of medium- and large-format mixers, though analog systems continue to offer sonic benefits that might prolong their appeal to a well-heeled client base. Today, it's all about control. Both Euphonix and Solid State Logic are reaching deeper into the workstation arena, the former with a protocol that allows System 5 control surfaces to communicate with Steinberg's Nuendo, Merging Technologies' Pyramix and comparable high-end DAWs. SSL now offers AWS 900 controllers for not only Digidesign under HUI emulation, but also for other DAWs that support the Mackie/Logic protocol.

As part of its migration strategy into the project studio market with AWS 900, XLogic rack units and Waves plugins, SSL leveraged its platinum heritage and looked for ways to improve workflow by combining analog processing, monitoring, foldback, talkback, setup recall and DAW control. More than 150 AWS 900s have now been sold, and the company concedes that R&D investment is significant and growing, as witnessed by several product introductions during the past year, with more to come. The company's new owners are said to be focused currently on remaining entrepreneurial; it is estimated that as much as 20 percent of SSL's yearly profits—worldwide sales are expected to hit \$20 million this year—is allocated to R&D.

Euphonix embraced a long-term strategy in engineering its EuCon protocol for console/workstation bidirectional control. DSP Cores of large-format digital consoles comprise embedded high-speed EQ, dynamics and mixing algorithms, plus I/O functionality—not too dissimilar from a DAW's topology. So why not use a DAW as the back end for an existent console surface?

Developing the EuCon control protocol swallowed a significant amount of Euphonix's R&D budget. However, once innovated, EuCon's major strength is that with accelerating support from software vendors, it brings a growing number of products together into the audio workflow—DAWs, for example, in addition to controlling remote mic preamps. The firm also spends substantial amounts of its revenue—estimated at close to \$30 million per annum—on engineering development, including large-format network servers and SAN interconnectivity as part of its vertical product line. Networked systems enable its products to connect a user's choice of platform, workstation, I/O and software in a configuration that suits the user's needs.

#### THE HYBRID MANUFACTURER

Many of the more traditional hardware companies were quick to plunge into the software market. Nowhere is this

approach more noticeable than in the flood of recent products from industry heavyweight Digidesign.

Despite appearances to the contrary, Digidesign is a hardware-driven company; stand-alone Pro Tools software accounts for less than 10 percent of the division's annual take. Even in its early days, close to two decades ago, Digidesign developed hardware that could optimize performance of its core audio editing technologies and connect to the outside world. In fact, until April of last year, with the launch of LE and M-Powered systems, customers could not purchase Pro Tools by itself. In addition to dedicated DSP cards, converters and I/O units, through the range of Control/Command interfaces, the firm now offers ICON and VENUE turnkey production systems with integral mixing and recording. The numbers are impressive; the company estimates that more than 100,000 Pro Tools-powered DAWs have been sold worldwide, with more than 1,000 ICON systems sold in two short years.

"System" is an important word at Digidesign, and one that has been a major factor in product planning in reaction to continually changing market demands. ICON, prior to its launch in April 2004, was in development for close to 30 months; maintaining focus on where the market would be two and a half years into the future, what features it would require and what would be an acceptable price/performance ratio with the result being just what the market wanted.

VENUE was designed as a highly application-specific



version of the Digidesign DSP for live performance; reliability and minimal latency were considered critical features. Even the core mixing engine needed to be revisited to ensure that signal processing reacted instantly to front panel adjustments without muting and other funnies.

Digidesign also supports the efforts of third-party plug-in developers, which bring valuable expertise to the innovation program and underscore the product's integrated, system-level concept. A team of four full-time engineers supports external developers; such an investment of close to \$500,000 per year obviously has proven worthwhile, even though it might be difficult to quantify a tangible return on the investment.

While plug-in software from Eventide is based on the firm's hardware and can be purchased for a fraction of the cost, inherent problems of PC reliability and latency—particularly for live performance and on-air broadcasting—help ensure a viable market for its family of Harmonizer-brand effects. Hardware boxes pack such a wealth of effects that in the case of the H8000FW, the cost per effect is less than \$4. Eventide expects to grow its TDM business by executing a simple strategy: to continuously develop and add new plug-ins to its Anthology bundle while keeping the bundle's cost constant.

TC Group, meanwhile, offers Power Core PCI-compatible cards and FireWire-attached add-ons to enhance the performance of its TC6000-derived plug-ins, which are also available in TDM versions for Pro Tools. Power Core provides a VST/Audio Units environment with powerful copy protection and supports a variety of host applications, including Steinberg Cubase, Apple Logic Pro and MOTU Digital Performer.

## SOFTWARE ASCENDANT

Founded in 1994, BIAS is an example of a company that kept faithful to its original vision for sample-editing software. This company, which enjoys annual sales of some \$10 million and employs 20 people, remains committed to the Apple platform. Although in the past three years the company has released eight plug-ins that run on both Windows XP and Mac OS X, its flagship product, Peak Pro, continues to operate solely on Mac systems. (Peak was one of the first audio programs to run under OS X, and it will soon be shipping as a Universal Binary application for new Dual Core Macs.)

In terms of growth potential, BIAS cites two avenues of advancement. Protecting software can be problematic, but so far, hardware keys have prevented unauthorized

piracy of its pro products. OEM offerings with video NLEs such as Canopus Edius offer one value-added opportunity. Bundling has also secured added sales revenue; the Peak Pro XT package sells for \$1,199, and includes applications that would cost \$2,000 if they were purchased individually.

Another software-only developer, Cake-walk brings in between \$10 and \$20 million a year—reportedly comparable to German-based Steinberg. The firm's SONAR brand has been a market leader for half a decade and was the first DAW to run native 64-bit on PC platforms. While management has looked at hybrid software solutions using dedicated DSP cards or external engines, there is a continuing belief that a software application running under an appropriate operating system—64-bit Windows and/or Dual Core Macs—can match or exceed other options. And piracy will always be a potential problem; the firm spends development dollars on copy protection and secure online delivery.

Like Cakewalk, Sony Media Software offers a range of applications, from professional-level tools for video, audio and DVD production to products for home studios. The company's origins are in Sony Pictures Digital Networks, which, back in mid-2003, acquired Sonic Foundry's desktop software assets division for \$19 million. (The original digital streaming and live-event aspects remain under Sonic Foundry's control.) At that time, Sony lacked a significant presence in the pro audio and prosumer software market—aside from Oxford plug-ins—so the arrangement worked out well. SMS' estimated yearly sales are now around \$30 million, breaking down to an annual growth of about 30 percent in a crowded market. That type of growth can be attributed to three complementary elements: strong leveraging of the Sony brand, a continuing commitment to marketing to ensure high visibility and regular enhancements to the Vegas, Sound Forge and ACID applications, as well as its line of loops, samples and other libraries of digital content. The company's strategy involves repurposing the higher-end, more expensive programs for the prosumer and MI markets, where cost can be kept necessarily lower because of proven, scalable technology and successful R&D.

## DON'T FORGET HARDWARE!

Let's face it—our industry loves knobs and meters. One company that has focused exclusively on hardware is Manley Laboratories, which currently employs more than 50 people and spends six to eight percent of its revenue on R&D. Innovate, to this analog-centric firm, means developing new

concepts for mixing, microphone and signal-processing products; it means leading more often than following. Its key design mantra is "Be First, or Be the Best." Put simply, it has a cost formula for setting retail prices of a new product, which will result in a wholesale price that makes it profitable; the higher the quantity sold, the faster it recoups a return on R&D investment. (After all, upper management reasons, it is unafraid to market expensive devices if high costs are required to cover build costs.)

In terms of new improvements to older products, the company might re-lay a PCB to make it easier and cleaner to fabricate, engineer an improvement or add user features. To retain customer loyalty, Manley rarely increases retail prices and some products have been available for 10 years or more. The company's management endeavors to extract higher efficiency out of its workforce rather than hire more people or outsource manufacturing.

Another important issue concerns the way manufacturers can get product lines to their customers; factory-direct is appropriate for high-end products, but low- to medium-cost components—elements that might be ordered via a credit card, for example—are more likely to be purchased through Internet portals or local brick-and-mortar stores. For lower-cost DAW software and plug-ins, online purchases enable instant access; within minutes, an entire studio can be downloaded and fully operational. A recent phenomenon is a growth in distribution partners that are providing value-added services and products. Both Euphonix and SSL are now using GC Pro, the systems integration division of Guitar Center, to carry their lower-end DAW controllers.

"Where's the money?" reflects David Angress, Guitar Center's executive VP. "Much of it is driving away on a big brown truck! Far too much money leaks from our industry into the coffers of transportation companies and evaporates as interest paid to banks. In an effort to build a better supply chain, for the past five years, GC has been actively working with vendor partners and shipping companies to move goods faster and more directly, thereby lowering costs of freight and the interest costs associated with holding inventory. Their portion of the resulting profits can be reinvested by manufacturers in additional R&D that takes the state of the art forward at a faster pace; ultimately, better products get to the customer faster at a lower price." ■

*Mel Lambert, heads up Media&Marketing, a full-service consulting service for pro audio firms and facilities.*



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# Gina Fant-Saez

BY MICHAEL BARBIERO

Gina Fant-Saez has taught me much about the wonders of Pro Tools, so I know first-hand that imagination is what drives her throughout her career. I first met her during a phone conversation back in 1999, when I was looking for a Pro Tools operator for a project in the Austin neighborhood, and she was in New Orleans working on a Soul Asylum album. In less than an hour, she managed to convince me to abandon my old analog prejudices, invest in a Pro Tools rig of my own and to hire her as my operator. She simultaneously edited drums, taught me the ins and outs of the software she was using and kept her sense of humor about the 16-hour sessions we were doing. By the time we finished, I felt like I'd known her all my life. Since then, Fant-Saez has been more than generous with her time, making herself available for tech questions—even in the oddest hours of the night—while also helping many others like me embrace the new technologies that shape our industry.

With a master's degree in Interactive Telecommunications from NYU's Tisch School of the Arts, Fant-Saez left New York and the jingle industry in 1997 and relocated her recording studio, Blue



World Music, to Austin. In the ensuing years, she has worked on projects in various capacities, from engineering to mixing, for numerous successful artists, including U2, Jimmie Vaughan, Sting, Shawn Colvin and Chris Vrenna (Nine Inch Nails, Tweaker).

In her latest incarnation as muse of all things digital, Fant-Saez has created an online music collaboration network called eSession.com. It promises to be a multifaceted music file-sharing device for high-profile writers, producers, musicians, engineers and mixers who want to increase their visibility and accessibility via the Internet. While she visited with me at my home recently, updating my Pro Tools rig with the latest HD hardware and software, I had an opportunity to ask her in some detail how eSession.com will work.

*The Rocket Network was an early experiment in online music sharing that failed. What makes you think that you will succeed?*

Willy Henshall started [Rocket Network], and while the concept was great, all it did at the time was MIDI collaboration across the Internet. Back then, it was called Res Rocket and you were running on 2,400-baud modems, which is one one-hundredth the speed we have now. The limitations were that [Emagic] Logic, now owned by Apple, could only work with Logic, [Steinberg] Cubase could only work with Cubase, and [Digidesign] Pro Tools could only work with Pro Tools. Those were the only applications that



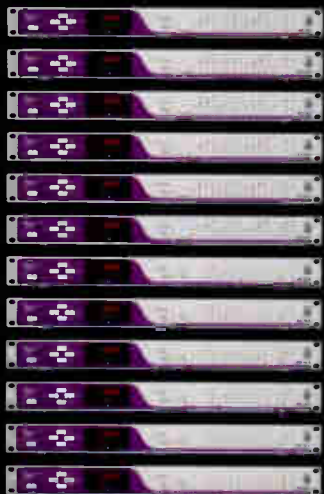
The home page for eSession.com, which will debut at Summer NAMM in July.

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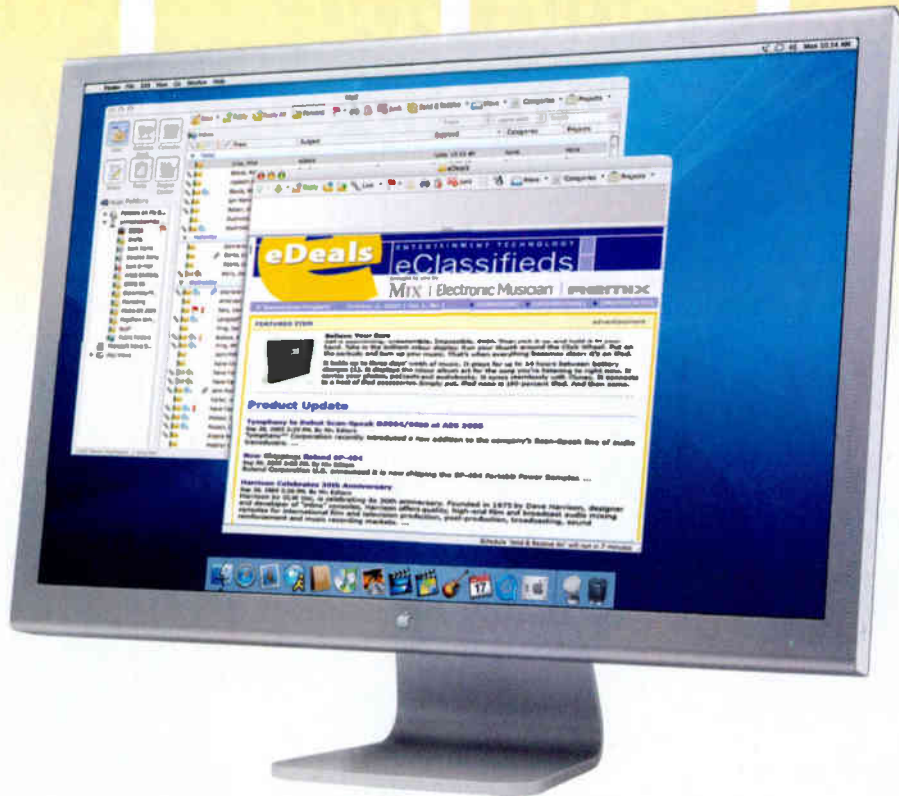
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had Rocket built in. Also, they charged for bandwidth! And who can keep track of how much bandwidth they're using?

So I'd meet somebody on Rocket, and say, "Hey, you want to play guitar on my song?" And there were times I'd get some 1970s doodle all over my vocal tracks, which I had to pay to download. I kept telling them for years, "You've got to combine talent with the technology! You're giving people technology, but you're not giving them any talent to use!"

So based on my experience with Rocket, and based on experience using my private FTP server, which I worked on with other writers and musicians for many years, I started creating eSession.com. I asked myself, "Why don't more people work this way?" The answer was, they don't have a huge resource of talent, and file transfer is too complicated for most people. So then I asked myself, "What does everybody use?" Everybody uses the Internet. "What does everybody use *on* the Internet?" A browser! So, I designed eSession.com to be a Web-based, cross-platform collaboration system with a database of world-class talent, providing a simple drag-and-drop solution for file transfer so that anybody using Cubase, Nuendo, Logic, Digital Performer, Live or Pro Tools will be able to use it in one cohesive working space. It's a global network of talent.

*Many contemporary artists are releasing albums made using multiple producers and engineers, relying on the final mix engineer or even the mastering engineer to pull the final product together into a cohesive whole. Now you're offering a means to employ a different engineer for each track! How will any quality control be maintained in a production that relies exclusively on eSession?*

Perhaps what I'm doing is giving people an opportunity to change engineers in the middle of a project, if they want to. But I still think it's up to the producer to say, "Hey, [this guy's] mixing this album and here are the 10 songs." If something changes or if they don't like the mixes, then they can log on to eSession.com to [find] a different engineer. Maybe they hire a pro to come in and fix something. It's just another tool. It's totally not my intention to take any cohesion out of the music business!

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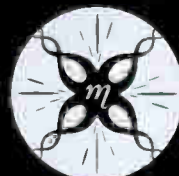


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control purposes, my partner, Kevin Killen, and I have been going around to our various talent members' studios and looking at their gear, helping them to get the cleanest sound possible. Kevin usually tends to their mic placement, mic pre's and outboard gear, while I take on their computers. We're a great tag team. We're slowly making sure our talent members have all they need to create great-sounding work for our clients.

On the client side, I think there are going to be professionals who know how to use a mic pre and get good sounds, and there are going to be those that have no idea how to



Fant-Saez's studio, Blue World Music (Austin)

mike or record their instruments at all. However, when a client contacts you for the first time (on eSession), the client is required to complete a negotiation form along with the submission of their material. These negotiation forms ask, "Your project was recorded on what, using what software? Is it recorded in a home studio or in a commercial studio? What's your bit rate, sample rate, et cetera." So an engineer or musician can get a good idea before they even accept a job how professional the client is. Just as one can look at a musician's profile in eSession.com and [find] their studio, mic preamps and all their instruments, the same holds true for clients.

*Let's say you're hiring a bass player for an overdub. Is there a way to audition the sound before paying for a performance?*

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have a lossless version because 50-megabit Internet has just come into New York and L.A. Right now, we're forced to use compressed audio in this plug-in due to slow Internet speeds—most people are only getting about 1.5 [megabit] at most. But in the next year or two, we're going to be able to do complete lossless recording, so we'll be able to use this plug-in for real-time recording as opposed to just pre-production.

*I've worked on projects where even a single copy of a mix is not allowed to leave the studio. With eSession.com, all of the album's files will be out there. How will eSession address security concerns for uncopyrighted material?*

Well, eSession has two forms of encryption, and every song is only accessible and downloadable by the owner of the project; it's all permission-based. So we're creating the site to be ironclad as far as anyone stealing someone else's material is concerned. But, as you know, there are hard drives floating around all the time and FTP sites with files accessible to anyone with a log-in and password. Each individual song on our site will have its own set of permissions—who gets in and who can upload or download. Currently, we're in discussion with ASCAP about a possible partnership, which would inevitably help eSession address copyright issues.

*How will eSession clients arrive at pricing for their work?*

Everything is negotiable. When the client pays \$25 to contact a talent member, he or she receives a negotiation form [called a Work Request]. If it's going to a musician, it asks how many tracks the client wants, what he expects, what he's looking for, et cetera. The client then replies with what he or she wants. So before the talent member even makes a bid, they get to see what the client is looking for. The talent assesses all this and, again, gets to see how professional the client is, and then comes back to that same negotiation form, saying, "I'm going to bill you a flat rate or an hourly rate or a daily rate," or whatever. That goes back to the client, and the client may say, "I only have 'x' dollars." They can renegotiate as much as they want.

We're not setting fees because, as you know, a friend might call and say, "Can you do this for me? I only have \$500," and, if you're not busy, you'll do it. We're starting to see some copycat sites instituting \$300 fees. One site suggested starting at \$250. We feel that musicians devalue themselves by subjecting themselves to fixed rates. Projects vary in time, size, complexity and range of use—i.e., a demo or final master;

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rates should be variable, as well.

### *How does eSession get paid?*

We take 15 percent of whatever the talent charges. Also, every time somebody contacts you to mix something, they pay \$25. Ten dollars of that goes to the talent [and \$15 goes to us]. We're hoping that it might be [worth] \$1,000 a month or \$12,000 a year, just for the talent to assess whom they want to work with! Imagine if you had \$1 for every time someone asked you to listen to something—well, now you have \$10.

### *Tell me about this new facet of eSession.com that's called eSessionwriters.com.*

eSessionwriters.com is a subscription-based service for accomplished songwriters and composers. For eSession.com, we will require everyone to have at least 15 major-label credits to be part of the database. The eSessionwriter.com database will comprise writers with similar criteria, such as five Top 10 hits or two major film credits. We haven't worked out the details for membership yet, but the site is going to allow songwriters and composers, regardless of location, to collaborate. They can scroll through the database of successful writers and find others to co-write with across the Internet. We've created a virtual writing space, where they'll have free access to our chart application, which is an application to create fast and easy chord charts.

### *What is eSessionIndie.com and eSessionLite.com?*

eSessionIndie.com will be for players who may not have the 15 major-label credits required to be part of eSession.com, but who have the talent and experience working on various indie-label projects. So clients on a tighter budget can perhaps hire guys for less than they might be on eSession.com. eSessionLite would be for the amateur market. Anybody will be able sign up, and it will be subscription-based.

### *Do you see any danger of your site becoming overburdened with too many choices?*

Hopefully not. At some point, we may have to close the sign-up. I don't want to overwhelm people with 300 guitar players. But right now it's okay. We have about 280 people as of today, and we get about 10 sign-ups a week. By the time this article comes out, we should have around 350 musicians and engineers. Eventually, we'll be adding a producer database, as well. ■

*Michael Barbiero is a producer/engineer/mixer with credits on a slew of albums by top artists, including Ziggy Marley, Metallica, Guns N' Roses, Gov't Mule, Maroon 5, Counting Crows and Blues Traveler.*

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# Long-Distance Session Work

BY GEORGE PETERSEN

Calling in a session player can add a lot to a track, especially in these days of self-made artist/engineer/producer/composer projects. Besides bringing a new texture to productions, a great session player offers a certain touch that samples and loops could never achieve.

The same way the right spices can round out a recipe, a master musician can add a natural interpretation to a song. After struggling to get the right "feel" on a percussion track for an album I once co-produced, I convinced the artist to bring in legendary drummer Pete Escovedo, who nailed the part, giving us exactly what we wanted in less than a half-hour. Not only did we get a brilliant performance, but Escovedo also suggested some other small overdubs that gave the track a great sound. As a bonus, the name of a famous guest performer on an album project can boost sales—or at least help spark interest from reviewers and/or radio program directors.

Working with top session pros is a real pleasure, but it can be logistically difficult, especially when working with a limited budget. It helps if the player you want is local, but using someone who's hundreds—or thousands—of miles away used to require either traveling to a distant studio and booking session time, or convincing the player to travel to your facility, with you picking up the tab for plane fare, hotel, per diem, limo, etc. Either way, the traditional model is expensive—even before you figure in the player's fees.

Fortunately, with the ease of DAW file exchange and the proliferation of high-end recording rigs in musicians' private studios, a new model has emerged for long-distance sessions. These may involve real-time, live interaction with file exchange over Internet, storing session takes to an FTP site or—more commonly—simply burning session files to CD-ROM, with courier/mail delivery of the completed performances.

## SESSION PLAYERS, A LA CARTE

One company taking advantage of this new technology is SessionPlayers.com, a network of top music pros with their own studios. Founded by Joey Finger (himself an in-demand session drum-



*In a contest sponsored by Broadjam and Sessionplayers.com, artist Bryan Bryant of Houston (in monitor) won a remote session at the Institute of Production and Recording in Minneapolis with (front row from left) guitarist Dave Barry, engineer/IPR director Tom Tucker and Broadjam's Roy Elkins; and (back row, from left) Sessionplayer.com's Joey Finger, engineer Steve Hodge, keyboardist Ricky Peterson, Source Elements' Robert Marshall and IPR instructor/bassist Paul Peterson.*

mer), SessionPlayers.com has a simple Web menu listing dozens of top players in just about every musical style. The lineup includes some very well-known names, such as Robben Ford, Jonathan Cain, Greg Phillinganes, Will Lee, Leland Sklar, Peter Erskine, Gregg Bissonette, Ndugu Chanler and a host of others, including vocalists. The roster also features some 15 recording engineers offering mixing services.

The process begins with the client examining the profiles, sound clips and discographies provided for each player on the site. Then, after paying a \$25 membership fee/deposit (refundable with the first session), the client contacts Finger, who sets up the session. As for the fees, "You can get a reputable player for as little as \$250 a song," Finger explains, "going on up to over \$1,000, but most are about \$500 per song—in the range of double-scale, although you don't have to pay for engineering, travel, studio time or cartage."

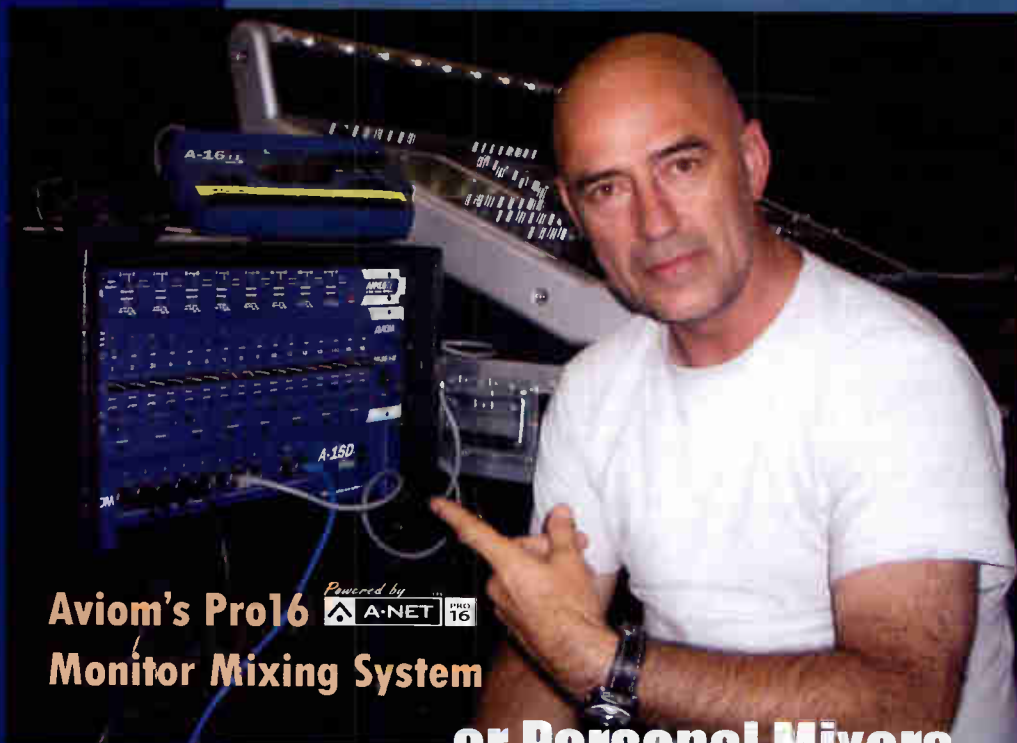
Obviously, most people prefer to have the ability to listen in and communicate with the artist during the tracking. "If people want to do a live session, I've found that [Source Elements'] Source-Connect software works very well," says Finger.

"The company has another product called Source-Live that only requires an Internet hookup with QuickTime listening capability, enabling users to hear near-real-time 128kbps files."

Such live sessions certainly appeal to the client, and they eliminate the waiting time to hear an offline MP3 version for approval. The downside is that live requires the player to be available at a certain prearranged time, rather than performing the track whenever their schedule permits, such as 3 a.m., after a gig. And the players themselves have different live vs. offline preferences, which may affect their session rates. "These sessions can work either way, but many people are just thrilled to hire that one great guy and let the player decide the direction and feel of the performance," says Finger. "But it's their audio, and their song, so we usually provide the customer with multiple takes to choose from, offering the flexibility of editing the takes or comping it any way they want."

"The process really lowers the bar for people who previously couldn't afford these players, while the players have the benefit of less travel and can work at home when they want."

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Although typical drum, bass, keys, guitar or solo horn sessions are fairly straightforward, the process is more complicated for session horns. Simply hiring a horn section for harmony parts can be a recipe for disaster, unless you go into the session armed with an arrangement and charts. With that in mind, session trumpeter Ron Blake (whose credits range from Green Day to Dr. Dre) started [www.hispeedhorns.com](http://www.hispeedhorns.com), designed to provide arrangement assistance and affordable horn players for remote session work.

"We can do whatever the clients want," says Blake. "We can record separate parts and send them, which offers more control in the mix. If they need a live ensemble with players together, we can do that. We cater to independent artists who want to add horns to their songs for a reasonable fee." Those fees depend on the number of players in the section; written arrangements start at about \$50, but they go up based on the complexity of the parts.

**FLYIN' SOLO**

Not all remote sessions come from referral services. Drummer Dave Weckl—whose

credits read like a who's who of rock, jazz and pop—began offering remote sessions in 2001. From [www.daveweckl.com](http://www.daveweckl.com), clients can arrange for Weckl to perform from his private Pro Tools HD Accel 3-equipped studio, where his double-kick, birch Yamaha Absolute Vintage kit is miked and ready to go. Fees are typically \$1,000 a song (complex solos are additional) but include the performance fee, studio time, engineering fee and administrative costs.

"I'm on the road more than half the year, so I'm a bit selective about project quality and estimated time investment," Weckl explains. "Usually, the proposed client sends me MP3 demos of the music. Once we move forward, clients send audio files, usually broadcast WAV—the most cross-platform-friendly type of file—either on disk or via the Internet using either Digi Delivery or an IM service like AIM, iChat or Skype. I've found FTP sites to be the least reliable and the slowest. Sync is a major issue, so files must start from the very beginning of the sequence. Most clients call me for my



PHOTO: GENE MARTIN

Drummer Dave Weckl's kit is miked and ready to go.

sound, as well as my performance, so I usually return files with tom gating and some minimal EQ to provide tracks that already sound good." Of course, if clients prefer, Weckl can supply the raw tracks.

As it turns out, one main reward of remote sessions is not financial at all. "Over the last two years, I've recorded quite a few records in this manner—most from outside the country," Weckl adds. "It's been a great way to be part of many diverse projects that would not be possible without this setup." ■

*George Petersen is Mix's editorial director.*

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# All Media, All the Time

BY HEATHER JOHNSON

As album sales continue their decline and music consumers lean more toward downloading singles via iTunes, MP3 blogs and podcasts, building a loyal fan base, much less selling a full-length record, takes a bit of ingenuity on the artist's part. The public bounces from one "it" band to the next like a commitment-phobic lover, not willing or motivated to spend enough "quality time" with an act to take the relationship to a deeper level.

However, with the phenomenal success of lifestyle portals such as MySpace.com, nearly 2 million artists (according to the number of acts listed on MySpace Music) have found a way to woo over an artist with bulletins, songs to play and download, photos, blogs, e-mails and instant messages, giving them a powerful tool to boost show attendance, increase album sales and develop some of those one-song flings into long-term relationships.

Now, Los Angeles-based New Media Broadcasting Company ([www.NewMBC.com](http://www.NewMBC.com)) has developed a sophisticated next-generation, author-anywhere, private multimedia communication network.

Its "gated digital clubhouse" integrates a free networking portal and e-storefront with premium service upgrades (including a desktop application that delivers next-generation Instant Messaging), including self-publishing creation tools and global private broadcasting capabilities.

"It is a turnkey business model for artists interested in recruiting, engaging and retaining worldwide audiences," says CEO Scott Page, who formed the company with his partner, Russ Lujan (president/COO). Page—former saxophonist for Supertramp and Pink Floyd—was co-founder of publicly traded multimedia pioneers 7th Level. With Lujan, formerly executive VP of Internet streaming/interactive broadcasting company EnterMedia, he began developing the NewMBC concept that became New Media Broadcasting in 1999 after working together on IBM's ThinkNet online educational service.

"We saw broadband coming and the ramifications of community building combined with individual production capabilities," says Page. "We've built an audience-relationship platform from which bands can include and manage their audiences,



Back row, from left: Scott Page, Steve Lukather, Leland Sklar, seated: Russ Lujan

offer them private access to the inner workings and latest projects, and deliver them premium content—all within a paid-subscription environment based on a common mutual interest: fandom."

With this base, they will offer a subscription-based, private and secure network for the band and premium-level fans that also get access to exclusive content. "It's very behind-the-scenes," notes Lujan. "The artist chronicles how they recorded an album, transmits video soundchecks or issues a live broadcast about what's happening on the tour bus—what the fan is very interested in."

These VIP items can be delivered to subscribers' computers, cell phones and/or other mobile devices instantly. Ongoing communication among "club" members helps build a collective environment that can accelerate concert and album sales for the artist. "For example," says Page, "let's imagine that Toto [the company's first network channel] is touring in Europe. Guitarist Steve Lukather logs onto the network and sees that there are thousands of people online. He hits a button on his computer and says, 'Hey everybody, check out this jam we just did.' He pushes that out in real time. The fan walking down the street gets a beep on his cell phone, whips it open and views the jam. If Steve wants to push the viral network, he can grant rights to users so they can start mixing and mashing the content that is being broadcast online."

And there's no doubt that the members

of Toto seem to be enjoying this brave experiment in cyber-capitalism. In his reports from the road, as Toto sets out on its world tour, Lukather says, "There is a great change in the music business. The old business model is dead and all this new technology allows the artist to control their own destiny and manage a worldwide audience." Keyboard wizard Greg Philaniganes, Toto's newest member, observes, "It's a new and exciting forum that will hopefully reach great levels of interaction between fans, artists and peers."

And, in the case of the TotoNetwork's gated online community, certain musical celebrity chums are also taking residence; in two cases, as correspondents, guitarist Jeff "Skunk" Baxter (Steely Dan, Doobie Brothers) and bassist Leland Sklar (Phil Collins, James Taylor) have gotten into the act as "broadcasters," so to speak.

As Page notes, "Fans interested in this type of premium service, while a small percentage of an artist's audience, represent a new influx of substantial dollars. These passionate fans are the ones who buy every CD, collect the bootlegs, put the stickers on their cars, want access to the band and will pay for exclusive content they can't get anywhere else. Let's say five percent go with the premium service of 1 million fans who pay anywhere from \$4.95 to \$9.95 per month—that's as much as \$6 million a year in new revenues."

"Moreover, the artist can own the audience and establish the global market that is so critical to today's enterprise. If you create new projects or produce other acts, you can have a built-in audience based on repeat business, which is key."

"We believe that this is the most incredible time for artists and musicians," says Page. "What really makes it happen for the artist is the ability to reach an audience directly from anywhere on a worldwide basis, with a single network connection. The whole model has completely turned around, and finally, there's the potential for musicians to build a business with the people who really care the most about their music and are willing to support and receive it in this brand-new way. ■"

Heather Johnson is a Mix contributing editor.

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# José "Chilitos" Valenzuela

BY SARAH JONES

"People ask me, 'So what do you do?'" says José "Chilitos" Valenzuela. "I say, 'How much time do you have?'" To call Valenzuela a multitasker would be an understatement: The talented engineer/producer has mixed the likes of Keith Emerson, John Waite, Michael Sembello, Pepe Aguilar and Alejandro Lerner, and he has designed sound effects for feature films such as *Star Trek: Generations* and other TV movies. He's worked for network television. He's collaborated on the design of numerous audio products. He runs an audio production facility and an international school offering Pro Tools certificate programs in English and Spanish. Highly committed to education, he teaches a Pro Tools class at UCLA, and his "Chilitos and Friends" recording seminars in Mexico have drawn thousands of engineers from all over Latin America. (A Los Angeles event is in the works for the fall.)

And somehow, he finds time to write: He's the editor of DigiDesign's Spanish *DigiZine*, former editor of *Guitar Player's* Spanish edition, and he has worked extensively with the Latin Grammy Magazine Spanish edition and *Mix en Español*. He's written numerous audio textbooks in both Spanish and English. "The problem is, I'm a workaholic," he jokes.

## CHARTING A PATH

As a young child in Tijuana, Mexico, Valenzuela was surrounded by music, playing guitar, listening to old Cuban songs and going to Beatles concerts with his parents. "I had a dream when I was 18 to go to L.A. and become a rock star, like everybody else," he says. Technology, however, would ultimately become his true calling. Singing in a children's choir in Tijuana, "I remember we went to do a record, and I saw the microphones and the engineers and thought it would be great to do this type of work." As he grew older, audio developed into an obsession: Driving, he would glance at his speedometer and visualize VU meters. "For me, that was practice checking out audio meters." Valenzuela decided to go for the dream: He received a degree in electronics at Baja California's Institute of Technology in Tijuana, Mexico, and later went through the Audio, Electronic Music and Computer

Science Engineering program at California State University Dominguez Hills in Carson, Calif., and then UCLA.

Like most eager audio students, Valenzuela yearned to work in a big recording studio. "Everybody's dream was to work at Capitol Records or A&M Records," he says. "I really wanted to work at A&M for the longest time because I knew that A&M was Herb Alpert and The Tijuana Brass. And I always thought Herb Alpert was from Tijuana because of the band Tijuana Brass," he says, laughing. (The band actually comprised studio musicians.)

But before he even finished school, he landed a job as an electronics tech with Oberheim. "I was hired a month before I even graduated from college," he says. "The last final was on a Thursday, I started Monday. It's been like that ever since." A synthesis expert, Valenzuela was also called to program instruments for studio sessions in Los Angeles, and the recording gigs just snowballed from there.

Today, he runs AudioGraph International, a recording facility in Santa Monica that does double-duty as a surround-equipped studio and an educational center. In 10 years, more than 5,000 people have graduated from his Pro Tools programs; students have included engineer Ed Cherney and Men at Work's Colin Hay. He still writes, and is currently developing and producing new U.S. and Latin acts. Working on multiple careers at once, Valenzuela admits finding that balance is a challenge. "I never stop thinking about that," he says. "I have a schedule; everything is a 'crossfade.'" He insists, however, that he remains focused on his true love: audio. "Everything that I've done, and what I do, is related with sound."

## WORDS OF WISDOM

"I've been lucky in the sense that I'm always working and there's always some-



thing going on," Valenzuela says of his long and diverse career. But good fortune, of course, is only part of the equation: Like many top audio pros, Valenzuela is thriving in today's climate by reinventing himself and always being a step ahead, offering solutions people don't even know they need. "I can count on the fingers of one hand how many times I have asked people, 'Do you have something that I can do?'" he says. "I've always been an instigator.

"Create something and show it to somebody as a product," he advises. "Nobody asked me to write books—I wrote the books as a necessity to give notes to my students. If there is no work out there for you, create something; be creative. It's really exciting with all the media now; multimedia, digital media, radio, TV, all using hi-def audio. There's a lot of competition right now, but I think that makes it better—you get better results, more quality."

Valenzuela advises his students to aim high, but to also walk the walk. "I tell them they have to be inventive," he says. "They say, 'Well, you can say that because you have a school,' but nobody asked me to have a school.

"You already have an answer," he adds. "Everyone's going to say 'no'; you have to look for the 'yes.'" ■

*Sarah Jones is Mix's features editor.*

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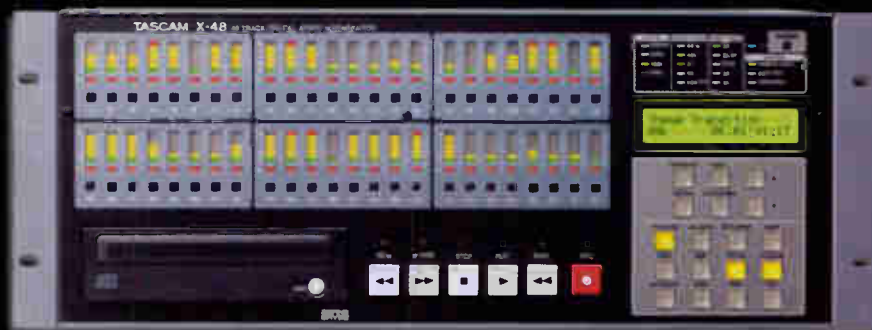
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# Nathan East

## Spotting New Angles From His Room With a View

Nathan East gazes out the window of his personal studio on the 22nd floor of the Universal Tower, a slate-gray monolith that dominates the landscape where the Cahuenga Pass opens into the San Fernando Valley. It's a stunning view, especially after dark, which is when East prefers to work here in his "workstation," as he calls it, with the lights of North Hollywood and Burbank glittering off into the distance and a parade of red taillights snaking around to the west on the Ventura Freeway. For this A-list bass player, the view has a practical aspect: He lives 10 miles up the freeway in Tarzana, and he can tell at a glance what the traffic will be like on the drive home. Although he has a well-appointed studio in his house, East opts to handle certain projects in this high-tech aerie.

The 14x18 room where the renowned session musician, Fourplay member and longtime Eric Clapton sideman does his thing is part of the busy post-production house Panoply Pictures, run by East's partner, Dave Riggs. The two share a passion for high-speed prop planes and became friends when Riggs was renting East's state-of-the-art Lancair 4-P, a model of which sits on a stand next to one of the Dynaudio Acoustics Air Series powered monitors.

"We set a couple of world speed records in this plane," East says with pride. Their friendship led to a growing interest on East's part in Riggs' field, and three years ago, the musician moved in and began picking up Panoply projects, primarily composing and performing the music for movie and DVD trailers (including *The Bourne Identity*, *Red Dragon* and *Die Another Day*), and updating the opening theme for the ABC soap opera *General Hospital*.

"I like to work," says East, "so we made a deal that when Dave needs music, I'll be around for him. Clients come in, listen to the music and tell us what they want to change. The job is either creating music or coming up with a more exciting version of what they have already," he says of the trailer projects. Riggs reciprocated by co-producing and editing East's instructional DVD, *The Business of Bass*.

Along with the TV and movie-trailer work, East uses the studio to do overdubs and fixes on recording projects, as well as for writing and demoing songs on guitar, bass and the brushed-aluminum Yamaha Motif keyboard that slides out from underneath his Sony DMX-R100 digital console and Mac G5. Lately, he's even been doing some tracking. "I use the Big Fish Audio drum loops they've been nice enough to send me," East explains. "With Spectrasonics Stylus RMX and all these great sounds that are available, I can create some pretty good drum parts, so if I get a good keyboard player up here and I'm playing bass, there's a rhythm track right there with guitar overdub; I play a little guitar. I also learned Pro Tools, Logic and how to use the gear to get my ideas down. But like the saying goes, it ain't



Ace bassist Nathan East's studio is part of Panoply Pictures.

the toys, it's the noise. I just try to get as much spirit down on the hard drive as possible."

In the past decade and a half, East's life has broken down into what he and his bandmates call "Fourplay years" and "non-Fourplay years"; for him, the latter have generally coincided with the "Clapton years," which have kept him from home. With two young children, East hopes to spend more time in Southern California—another benefit of his diversification plan. "I've been beatin' up the road for the last 20 years," he says, "and my kids would like daddy to be around a little more. I enjoy producing, so I'm taking my shot at it. Since I've put this place together, some good calls have come in. I consider this my new headquarters."

He's presently working on a Billie Holiday tribute album intended to serve as a companion piece to a biography of the legendary singer, scheduled to be published by Random House in July, the 50th-anniversary edition of *Lady Sings the Blues*. He's spent the past three days at Castle Oaks in Calabasas, Calif., cutting vocals with Boz Scaggs, Shelby Lynne and Renee Olstead; Rickie Lee Jones will be next.

East estimates that he'll do 15 to 20 percent of his work in this room, with the rest broken up among the Fourplay album and tour, session work and record production, along with that solo album he's wanted to make for the past 20 years. The move into Panoply, followed by an investment in the company (he's now a minority partner), exemplifies the approach East is taking in response to seismic shifts in the business environment. "I'm trying to balance my career," he explains. "I stay in open-architecture mode. Anybody who's survived in this business realizes that you have to come at it from a lot of angles. You either have to be on a great gig, selling a lot of records, writing, producing or performing. I'm very fortunate because all of those things combined is how I earn my living. My strategy has been to diversify, and I'm very happy that I did because now I'm not dependent on any one thing." ■

*Bud Scoppa is Mix's Los Angeles editor.*



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August 11, 2005



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## Kem



### Photos and Text by Steve Jennings

For signer/songwriter Kem's recent tour, front-of-house engineer Jim Gibbons (who has mixed the artist for the past eight years) is relying on gear from Thunder Audio—"great service and gear," Gibbons enthuses, mentioning company owner Tony Villarreal, systems tech Chris Moon and monitor tech Bruce Danz. *Mix* caught up with the crew in late March at Oakland, Calif.'s Paramount Theater.

The tour is carrying 10 Meyer Sound MILOs per side, with 16 hung at 90-degree dispersion and four at 120-degree dispersion, as well as four Nexo subs per side and four Meyer UPI frontfills. "The Meyer MILO speakers were fantastic in the wide array of venues we played," Gibbons says. "We had daily comments about how good the system sounded. Chris Moon did a great job of aiming and flying the system. The MILO speakers had the clarity, smoothness and punch with

the Nexo subs to hear the intricate and dynamic playing of the band."

Gibbons is manning a Soundcraft Series 5 board, using 48 channels and four stereo channels. "The right mixing board is one that I can most effectively transfer the emotion of Kem's music to the audience." As for rack gear, Gibbons carries a Lake Contour, BSS 901 compressor (vocal), Klark-Teknik DN500s, BSS DRP-402s, Drawmer 201s, a dbx 166xl, TC Electronic M500 and Yamaha SPX-2000, among other choice pieces.

"Kem is using a Shure Beta 87C mic on a Shure UHF wireless unit," Gibbons concludes. "Kem likes this mic because of how it sounds in his Sensaphonic in-ears and the way he can dramatically move and work the mic and still hear himself well. Working with Kem has been a great experience. The band has the chops, and the music is uplifting to make it fun to do day in and day out."



Front-of-house engineer Jim Gibbons

## FixIt

*Cobreed & Cambria's front-of-house engineer Pete Robertson recently made the switch to putting the majority of the band on in-ears, as well as finding the right gain in a Sennheiser 945 mic. Robertson also owns Woodstock Wired, a studio design business.*



I found that, starting out with another mic, I was driving it quite harshly and getting a lot more noise out of the board. Now, I'm not driving the mic amps as hard to get as much gain as I need, especially with Claudio [Sanchez], our lead singer. He's got a very youthful voice—very soft, very high-pitched. Because he doesn't push a lot of air with his vocals, the high gain of the 945 is very helpful. I have also put each of the four main members on Sennheiser EW 300 IEM G2 personal monitors. I remember one day taking my SPL meter up onstage as they were performing. With vocals through the monitors, sidefills and each musician with two 15-inch boxes in front of them, plus a drumfill, we had a volume of about 108 dB, A-weighted, onstage. The only musician on a wedge now is Dave Parker on keyboards.

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## News



*For Mudvayne's recent Masters of Horror tour, front-of-house engineer Scott Tkachuk employed a Meyer Sound MILO system, which was supplied by Rainbow Production Services.*

Representing the next step in development of the Robert and Margrit Mondavi Center for the Performing Arts at the University of California, Davis, are four Lake Contour digital loudspeaker processors and a Lake Mesa Quad EQ. The Lake gear was supplied and installed by XXXX Audio (Sacramento)...Need more training on dbx's ZonePRO Series? Go to [www.dbxpro.com](http://www.dbxpro.com), click on the Downloads link and select the ZonePRO Training Modules. Six different modules cover the entire process of system configuration and editing...Richmond Sound Design Ltd. (Vancouver) is now an EtherSound licensee...Julie Roberts has adopted Sennheiser's Evolution Wireless EW 345 G2 handheld microphone with the MD 845 dynamic supercardioid capsule as she starts picking up more shows in support of her forthcoming sophomore album. "It's a real smooth mic. It's not brittle," comments Roberts' FOH engineer and production manager Jeff Hawkins. "It seems to capture the lows. Some mics have almost an artificial low, and I'm not getting that with this mic. I like the low-end response."...Poncho Sanchez and his band recently brought their salsa-spiced music to Pasadena, Calif.'s Civic Center. Big Production Services (L.A.) handled reinforcement, which included a TCS Audio TL Series line array.



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## On the Road

### Jon Burton

*Prodigy's front-of-house engineer Jon Burton has also mixed for Beth Gibbons (Portishead) and Bjork at Live8 in Japan. Burton has also done monitors for Stereophonics, Lulu and Blue. "I prefer FOH for the obvious reason that you can hear what you do, but enjoy the discipline of monitors," Burton says.*

#### *How much gear are you carrying?*

We are carrying a cut-down backline as it is part of a larger world tour. I am carrying a small effects rack but rely mainly on my laptop. We are carrying all the mics and radio systems. We have rented some lights and extra sidefills and the keyboard fill from Eighth Day Sound. Prodigy are quite loud onstage, and house monitor systems come nowhere near our spec, so we are carrying a load of d&b speakers and amps.

#### *Any mixing techniques for this band?*

The main problem with mixing Prodigy is getting the P.A. to contribute and not battle with the stage sound. I time-align the P.A. to Liam [Howlett]'s rearfill. This points straight at me and there is no way I can ignore it, so I just use it as my point source and delay everything to this. Otherwise, it is pretty straightforward.

#### *What is your favorite venue in which to work?*

With Prodigy, the bigger the gig the better. They are one of the few bands that sound better in an arena than a club. If you have an enormous P.A., they are a great band to mix in a big gig! Any other act, though, I would prefer to be in a nice theater with carpets and soft furnishing! *When you're not on the road, where can we find you?*

I help out at my wife's chocolate shop in Sheffield, England. The moment I am back, I am dispatched to behind the counter, dispensing chocolate and confectionary five days a week. It makes a change and keeps me busy!

## Now Playing

### Taking Back Sunday

FOH Engineer: Eddie "Muscles" Mapp  
 Monitor Engineer/Console: Dustin Deluna/Yamaha PM5D  
 Monitors: Ultimate Ears UE10, UE7; Optogate PB-05  
 Outboard: Crane Song STC-8, Trakker; BSS Audio DPR-901 II  
 Mics: Audio-Technica AE2500, ATM 23, AT4051, ATM 35, AT825, AE4100; Shure Beta 58A

### 30 Seconds to Mars

FOH Engineer/Console: Mike Savage/house-provided  
 Monitor Engineer/Console: Scott Yelverton/Crest XR 20  
 Monitors: Sennheiser EW 300/500; Shure PSM 700, ULXS4  
 Outboard: Lexicon PCM 91; Eventide H3000 SE; TC Electronic D2, M1; Drawmer DS501; dbx 1074, 1046, 1066  
 Mics: Shure Beta 52/57, SM81/58, KSM 137; Sennheiser 421, EW 500; Electro-Voice N/D468; Countryman DI

### Celtic Woman

Sound Company: Masque Sound  
 FOH Engineer/Console: Wayne Pauley/Yamaha PM1D  
 Monitor Engineer/Console: Andreas Linde-Buchner/Yamaha PM1D  
 P.A./Amps: L-Acoustics dV-DOSC with SB218s  
 Monitors: Shure PSM 700 IEMs, Sennheiser 3500 Series  
 Outboard: Lake Control, TC Electronic M5000/2290  
 Mics: DPA 4066/488, Sennheiser, Shure  
 Additional Crew: Mickey Mulcahy, production manager; Guy Gillen, RF "guru"; Daryl Carmen, system engineer; Jason McCarrick, audio tech



## Come for the Concert, Stay for the CD

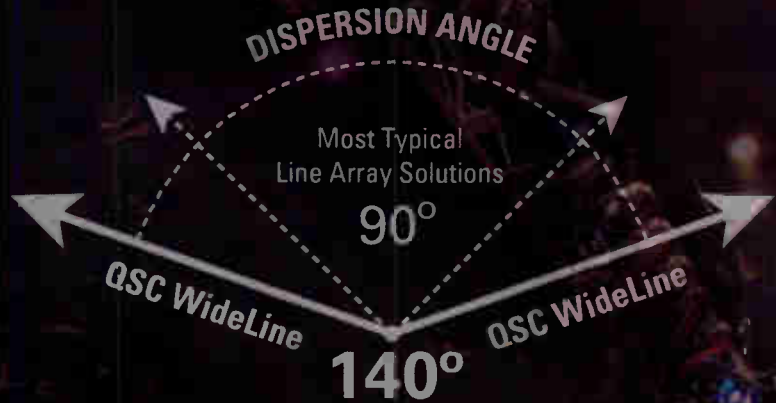
Audio production company Floating Earth has hopped onto the "record the show, sell the CD that night" bandwagon. The company used its new Sound-to-Go service to record a Mozart concert given by Sir John Eliot Gardiner and the English Baroque Soloists at London's Cadogan Hall. Floating Earth's mobile truck includes an SSL C200 console, 5.1 capability and fiber-optic connections to the stage, as well as Pyramix recording and mastering systems, and banks of CD burners.



According to Steve Long, the company's managing director, "For this event—the first we have undertaken at a classical concert—the recording was treated like any other live recording, with our engineers creating a live mix to stereo using the C200. The desk performed flawlessly, which meant that the only thing we had to worry about was getting enough discs burned for the huge demand from the audience." More than 400 CDs were sold and distributed; pre-orders numbered several hundred more. The CDs, issued on Sir John Eliot Gardiner's SDG Records label, are also being sold via SDG's Website ([www.monteverdiproductions.co.uk/shop](http://www.monteverdiproductions.co.uk/shop)).

"In terms of a live recording that reflected what actually happened, this was as real as it could get," Long adds. "Many so-called live CDs contain numerous studio inserts to 'correct' the live performance. The difference with this project was that it reflected the event, warts and all, and there was no editing made for any musical points."

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# Queen

## AND PAUL RODGERS



**A**rena rock is back in full swing as we enter into summer touring. Playing to a packed and jubilant crowd, Queen (who hasn't toured in nearly 26 years) with Paul Rodgers rocked the 18,000-plus-capacity San Jose, Calif., HP Pavillion in early April. With fill-in vocalist Rodgers (of Bad Company) and two original members—drummer Roger Taylor and guitarist Brian May—the crowd was able to relive the magic of “Bohemian Rhapsody” with archival concert footage of deceased original frontman Freddie Mercury projected on giant video screens. However, the 25-song, two-and-a-half hour show did not keep the crew “under pressure.”



Photos and text by Steve Jennings





Front-of-house engineer Trip Khalaf at the Midas board

Front-of-house engineer Trip Khalaf has been mixing every Queen show since 1977. On this tour, he's manning a Midas XL4 board, using 56 channels. The tour is also carrying a full rig, complete with a Clair Bros. 14 P.A. system.

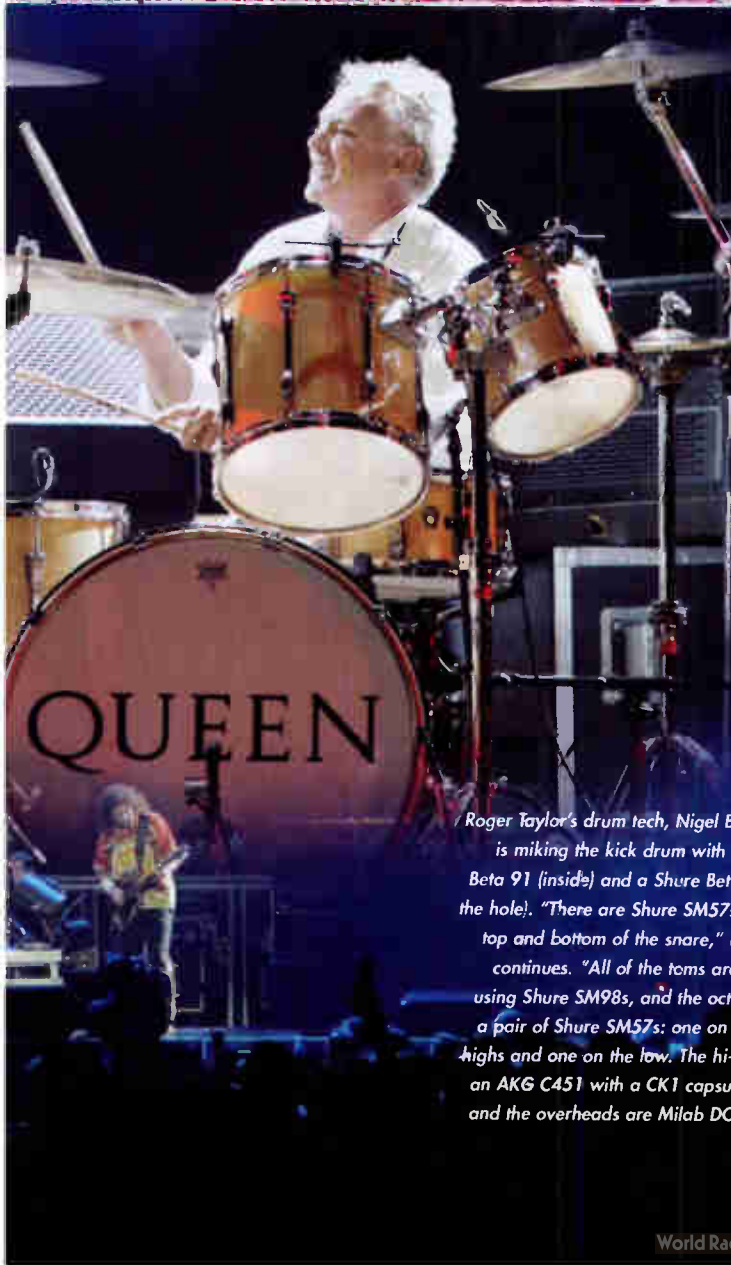
Despite the hectic 23-date touring schedule, which takes Queen and crew through major arenas across the U.S. and into Canada, Khalaf finds his gig quite enjoyable—perhaps having a bit too much fun as he jokes around with Mix. “I have no idea what I’m doing here,” Khalaf says with a laugh. “I was making big money dubbing Mighty Morphin’ Power Rangers into Armenian for the last few years and was told to come to the rehearsal studio to collect the bags of cash the producers normally slip me. I am being held hostage by these aging British rock gods. These people are all crazy!”



Monitor engineer Graham Blake (right) and monitor tech Patrick Murphy

At monitor world, engineer Graham Blake is using an analog Midas Heritage 3000 board. Rack gear comprises Klark Teknik DN-3600 EQs, dbx 160 compressors and Drawmer 201 gates, with a few Yamaha SPX-990s thrown in for effects.

“The band is on both wired and wireless Shure Beta 87Cs for all vocals onstage,” says Blake. “Drummer Roger Taylor is using in-ears on a couple of songs whenever he is not behind his drum kit, and Paul Rodgers is on ears the entire show. We are using the Shure PSM 700 systems. Roger has Ultimate Ears molds and Paul has Westone molds on his.”



Roger Taylor's drum tech, Nigel Burchett, is miking the kick drum with a Shure Beta 91 (inside) and a Shure Beta 52 (in the hole). “There are Shure SM57s on the top and bottom of the snare,” Burchett continues. “All of the toms are miked using Shure SM98s, and the octos have a pair of Shure SM57s: one on the two highs and one on the low. The hi-hat has an AKG C451 with a CK1 capsule on it, and the overheads are Milab DC-96Bs.”

According to Brian May's guitar tech, Justin Crew (pictured on left with Pete Malandrone [aka, “Captain George Back Stabber”]), May's setup comprises Vox AC30 amps, Mike Hill custom amp/loop switcher, Sennheiser radio system, Dunlop wah-wah, TC Electronic G-Force and Rocktron Intelliflex XL delay/effects.

The band is also out with a full complement of guitars, including Brian May's custom Red Special (homemade), two Fryer custom copy guitars, two Guyton custom copy guitars, two Guild 12-string acoustics and Yamaha nylon-string guitars using Avalon DIs and Korg tuners, run and maintained by “us pirates,” says Crew with a laugh.







# James Blunt

## Sounds "Beautiful" in Chicago

By Craig Dalton

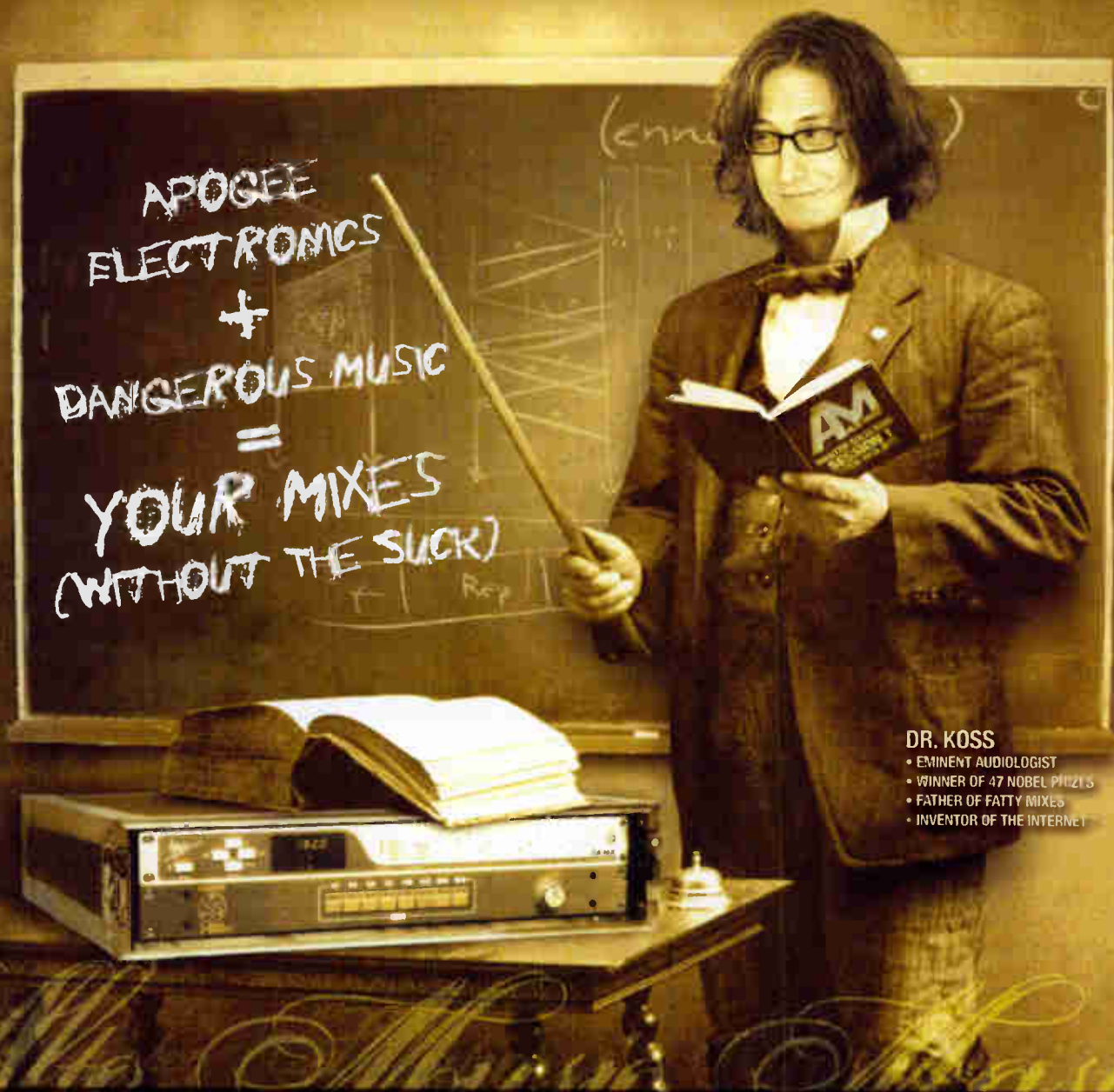
It was a typical waiting-for-spring Chicago evening in mid-March outside the Riviera Theatre in the Windy City's old Uptown neighborhood. (Performance photos were taken at San Francisco's *SF Weekly* Warfield.) The audience members who lined up to get in and hold down a spot in this converted Vaudeville-age venue were as young and pretty as James Blunt's mega hit, "You're Beautiful," sounds. Tour manager Robert Hayden was in charge, and everything was set for a great evening of well-performed and finely produced music.

With a strong lyrical leaning and classic pop rock sounds, Blunt has already captured his home base in the UK with his first major release, *Back to Bedlam*. The former British soldier appears to be the next big thing in the U.S., as well. "You're Beautiful" is the first Number One single held by a UK artist on American charts since Sir Elton John charted with "Candle in the Wind" in 1997. The real treat for Blunt and his fans during this phase of nonstop world touring is that the U.S. venues are intimate theaters for now. At press time, *Back*



PHOTOS: THE RUCO FIVE MANIPAGE

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\*Dr. Koss did not actually invent the Internet or win any Nobel prizes, and we're not too sure about that doctor status either. But he talks a good game and we like to keep him happy, so if you happen to run into him, just play along...

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Creative by Dante Ferrarini. [www.cantoferrarini.com](http://www.cantoferrarini.com)



to *Bedlam* had sold more than 5 million copies, but no one could have imagined it would do this well when the tour was in the planning stages.

"We've found that we could have sold out 4,000 to 5,000 seats every night, but the planning at the time was just to try to fill the 1,000-ticket venues," says Mike Hornby, who is the veteran front-of-house mixer for Blunt. With more than 20 years of experience working with acts such as Radiohead, Supergrass, John Cale and Joe Strummer, Hornby is no stranger to powerful lead vocalists.

For the Riviera date, soundcheck ran a little late because of a testy component, but it all got resolved. The tour's monitor mixer, Gerry Wilkes, says, "We are touring with a Midas Heritage 2000 for the front and a Heritage 3000 for the monitors; they are excellent and dependable." For the U.S. leg, Chicago company dB Sound/Sound Image is providing racks and stacks. The local system tech, Tim Shust, is on hand to make sure that what he says is the "dB standard theater system" of Electro-Voice P3000 power amps and X-Array boxes perform as planned. Klark Teknik EQs and XTA drive racks round out the meat of the system. "Because of the size of the venues on the tour, all the speakers and amps are being provided locally," Wilkes says. For the earlier European leg, Skan (Reading, UK) provided an L-Acoustics V-DOSC system. "I can't say enough about how excellent Skan was in Europe," Hornby says.

Accompanying Blunt (the vocalist plays keys and guitar) onstage are Karl Brazil on drums, Malcolm Moore on bass guitar and

Paul Beard, also on keys. The musicians are consistently tight and limber-sounding, and Hornby says that they are pleasure to work with; they allow him to do an old-school, straight-ahead mix. "From a punter's perspective, I don't have to ride the faders a lot; the band is very dynamic on their own," he says. Indeed they are, as Blunt moves from guitars to piano, from noisily rocking to quiet balladeering with and without the band's accompaniment.

Blunt has a signature vocal tone that is altogether powerful and melodic. This is an ideal situation for Hornby, as he can put Blunt's vocal "straight into the microphone and straight out of the speakers—he's just that good," Hornby says. The engineer says that he rarely uses any effects on Blunt's vocal (only when the room is completely dead), and he only uses a little compressor/limiter when he has to worry about crowd noise level. They are always "a very enthusiastic bunch," he says of Blunt's fans.

According to Wilkes, Blunt and the other musicians are all using wedges; there are no in-ears to be found. Wilkes says he's worked with in-ear monitoring on many tours, and it's all a matter of band preference. For the upright piano, a MIDI box is used to send signal for the monitor mix, and the microphone feeds from the Shure KSM 32s mounted over and under the piano sound box are sent only to FOH.

Mic-wise, it's plenty of Shure SM58s and 57s onstage, and Tom Krajecki of Shure has just delivered new KSM 32s for the upright piano and KSM 44s to be used as drum overheads starting with the Riviera show. "It's been all Shure the whole tour," says Wilkes. The vibe of the band is "very '70s": big piano, Wurlitzer and Hammond, a '70s drum kit, valve guitar and bass amps. "It's all about dynamics," Hornby says.

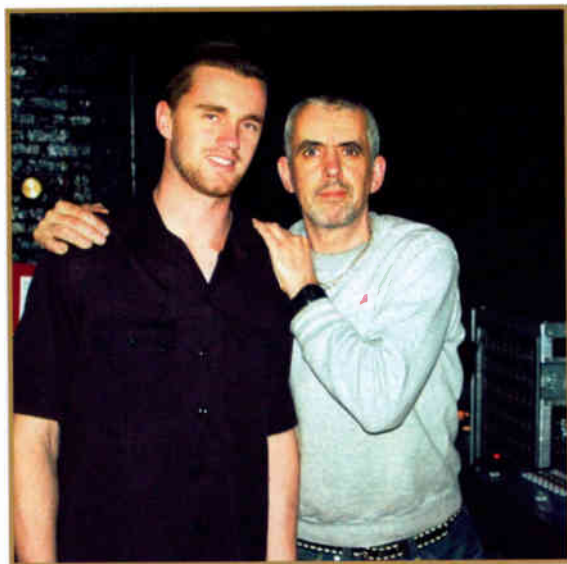
Dynamic is definitely the

word to describe the performance. With guitars, organ and drums pumping loud through the E-Vs during the first three songs, the fourth number switches to Blunt solo on upright piano and vocal. As he settles into a breathtaking performance of "You're Beautiful," the crowd enthusiastically sings along—word for word. All



Front-of-house Mike Hornby (leaning) and system tech Tim Shust (too busy on the phone to pose for the camera!)

PHOTO: CRAIG DALTON



System tech Marcus Douglas (left) and Gerry Wilkes, monitor mixer

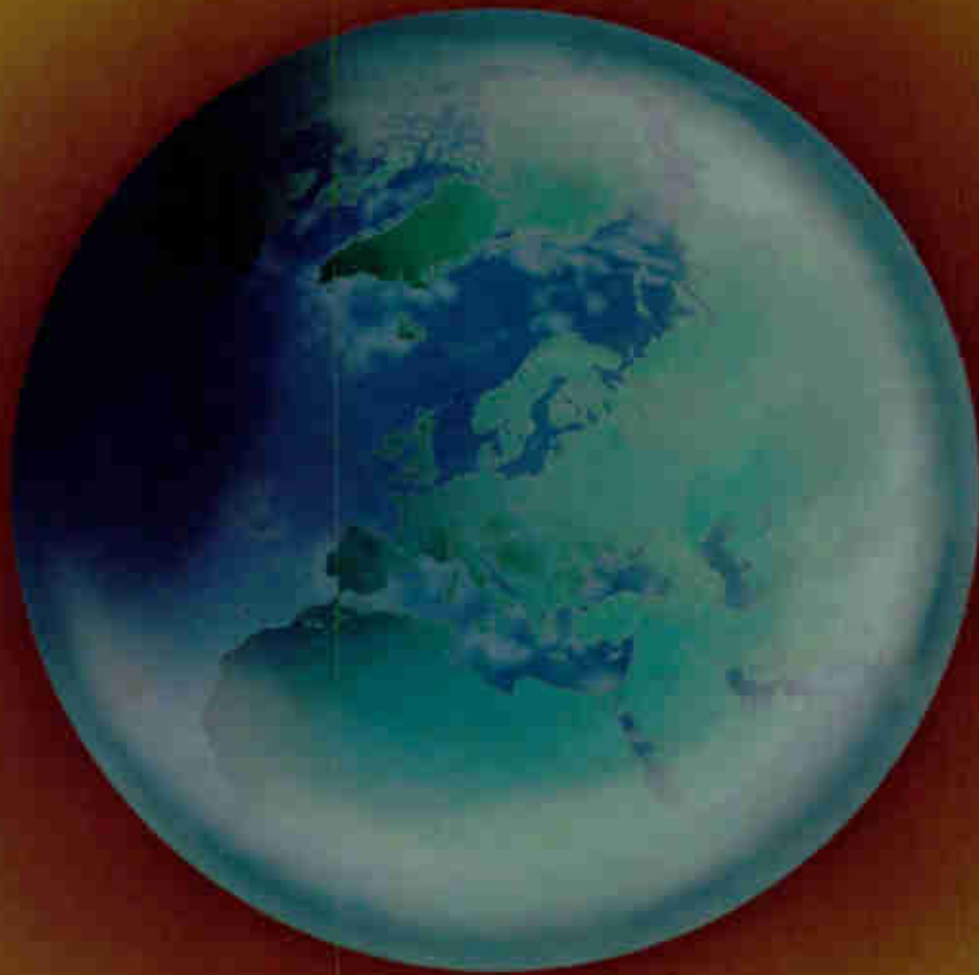
while, Hornby is checking levels and watching cues onstage, but he doesn't have to ride the faders much at all. "He's very accurate," says Hornby of Blunt's microphone technique.

Also on tour is Marcus Douglas as system technician, or "P.A. bloke" as Wilkes calls him. He is the son of Sound Image's director of touring, Jim Douglas. "I'm happy to be out here with James," says Douglas, already himself a veteran of many tours. "James is excellent every night; he's great to work with."

"We've got a lot of talent on the tour," Hornby says of both the technical support and the band. After completing their dates in the U.S., the crew and band will travel to Australia, Japan, Mexico and then back to the States, with all of one week or so off somewhere in the middle of it.

Momentum keeps building. It seems that Blunt is turning up everywhere, from TV commercials to cell phone company mailers to videos played constantly near department store CD racks. It is a good bet that the next U.S. leg of this tour will play in larger venues, and tickets will be even tougher to get. ■

Craig Dalton is a Chicago-based freelance writer. Contact him at [craldalton@sbcglobal.net](mailto:craldalton@sbcglobal.net).



Largely  
covered by  
water



# New World Audio

## From the Stage to Front of House

Sonny Maupin's dream of making it as a rock 'n' roll star in the late 1980s was about to come true: Having toured with major acts and gigging around Las Vegas as a percussionist and keyboardist, an original band, Station Break, of which he was a member, was getting airplay on major radio stations across the U.S. The band had just signed with a manager who was going to book them into a new L.A. club, which the manager and a few other investors had remodeled. Not only did Maupin have the musical chops, but he also knew the ins and outs of a sound system after years of tinkering with other bands' gear.

At that time, he knew someone in Las Vegas who was selling a P.A. system, "So I had the brilliant idea that if I bought this equipment, I could make a deal with these club guys and lease it to them for our gig," Maupin says. "We made the agreement, and I not only bought the P.A. system, but another \$15,000 worth of gear to supplement it. So I entered into this bold new venture \$35,000 in the hole, and for a musician, this was pretty serious. Still, I figured it was worth it."

Less than two weeks after his purchase, the manager became a "guest of the state." The club gig never happened and rock 'n' roll dreams were replaced with the reality that a large amount of audio gear was collecting dust. New World Audio ([www.newworldaudio.net](http://www.newworldaudio.net)) was born and has since become a top owner-operated pro audio company in Southern Nevada.

New World Audio has expanded its service to include leasing, sales, design, backline equipment and related services for lighting, staging and video. As the services have increased, so has the company's inventory of audio gear, which now includes all Meyer speakers, 20 Clair Bros. 12AM monitors, 16 Radian monitors, a fine selection of consoles (Yamaha PM4000, Soundcraft Series 5, Allen & Heath) and a large selection of outboard gear, mics and amps. When asked what separates New World Audio from its competitors, Maupin answers, "We are not a huge corporate entity, which has allowed us to provide a level of personalized service that is second to none. I don't see that in the larger companies, and it's something that I hear about from clients on a regular basis."

New World Audio has recently supported such diverse musical acts as Pat Benatar, 50 Cent, Herbie Hancock, Sublime, Yo-Yo Ma, The Judds, Collective Soul and Jewel, just to name a few. The company has also struck "gold" in the corporate market, routinely contracted by such companies as Playboy, IBM, Honda Motors, BMW, State Farm and Microsoft. "I have a professional crew of technicians who can handle most anything," Maupin says. "I still engineer a lot of the shows and, in most cases, I'm also the system tech.




Sonny Maupin heavily invested into New World Audio's racks of gear.

I figured out long ago how to operate efficiently. We have about eight preconfigured systems that can be easily and quickly scaled up and/or customized. Many of the same shows require four to eight guys, plus at least a day's time to get the system prepped, trucks loaded, et cetera, when the 'bigger guys' are contracted. We do these shows with two or three guys and in a fraction of the time. From when I get the call, we can usually be at a local venue within a couple of hours; within the next two hours, we can have a major system up and running."

The booming installation market in Las Vegas has become one of the company's largest profit-generators. Recent hotel/casino installs include The Stardust, Riviera, The Rio, Golden Nugget, Flamingo Hilton and Tropicana, as well as numerous local nightclubs and bars. According to Maupin, "I've had equipment on jobs every day of the year. One local casino leased its showroom system for the past five years before purchasing it. Another production show in a different casino has been leasing all of the backline equipment for their show, plus a duplicate setup and a P.A. for their rehearsal soundstage for almost two years. For the past 10 years, we have provided the system for outdoor summer theater at Spring Mountain Ranch State Park, as well as at the University of Nevada concert hall for the past eight years."

"I've been very fortunate in this business. There are several large companies here, and more arrive on the scene every year, so competition is strong. Yet we continue to grow exponentially. I attribute our success to my owner-operated approach. This career path is not what I originally envisioned, but overall, I couldn't be happier that we never got our 'big break' in L.A." ■

Sarah Benzuly is Mix's managing editor.

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# Real, Live Audio Solutions

By George Petersen

Compared to behemoths like Musikmesse, NAB and NAMM, NSCA (March 16 to 18, 2006) is the biggest "little show" in the industry. Although smaller, it's no lightweight, with 500 booths and 15 large demo rooms crammed into the gargantuan south hall of the Las Vegas Convention Center.

Anywhere you went at this year's NSCA, the talk was about networking, with *real* system control rather than simply moving audio over Cat-5 or optical fiber. Certainly, that's also part of the networking equation, but we're coming ever closer to putting the whole audio puzzle together. Listed alphabetically, here are our Top 10 picks.

Incorporating technologies from its higher-end WMS 4000 cousins, AKG's ([www.ake.com](http://www.ake.com)) WMS 40 PRO wireless includes the WMS 40 PRO Flexx, with up to three user-selectable frequencies per channel (nine simultaneous channels); a fixed-frequency WMS 40 PRO Single; and the WMS 40 PRO Dual, which lets two transmitters share a receiver. Transmitter options include guitar, micro-pen and the TM40, which locks into AKG's D3700/D880/C900 mics. The coolest part? They're rated for 30 hours of life from a single AA battery.

Using Tapped Horn technologies, Danley Sound Labs' ([www.danleysoundlabs.com](http://www.danleysoundlabs.com)) Synergy SH-50 is a high-SPL, horn-loaded, three-way speaker offering near-seamless overlap in tight arrays. Available with optional Class-D powering and onboard DSP, the single-horn design seems to defy physics with its dual 12-inch woofers, four 5-inch cone mids and 1-inch HF driver.

Finally making its public debut is the Dolby ([www.dolby.com/livesound](http://www.dolby.com/livesound)) Lake Processor, with speaker management/EQ, global software control (via computer or wireless tablet) and up to eight channels of Lake Mesa EQ or up to 4x12 channels of Lake speaker processing. Its LimiterMax technology couples instantaneous attack-time peak (and true RMS) limiters for absolute clipping protection.

Does the world really need another proprietary networking protocol? Maybe so, says Eastern Acoustics Works ([www.eaw.com](http://www.eaw.com)), whose Ubiquity networking concept goes beyond basic routing and control. Ubiquity is said to provide the granularity for handling complex data streams such as beam-steering parameters and tweaking single drivers in cluster/arrays. Unlike Ethernet subnets' star topologies, Ubiquity's mesh networking offers self-healing pathways, telephone-style addressing of devices in the system and SIA SmaartLive support directly from EAW's new UMX.96 digital mixer. Hardware bridges allow interfacing to other protocols or third-party gear.

Lectrosionics ([www.lectrosionics.com](http://www.lectrosionics.com)) unveiled its RM controller for its equally mini SM Series of tiny, high-powered bodypack wireless transmitters. Acting like an acoustic modem (remember those?), the RM sends a coded data string to the transmitter, using the mic as the interface to remotely adjust parameters such as frequency select, audio trim, lockout and sleep mode commands to an SM unit that may be otherwise inaccessible due to costuming, hair, etc. Brilliant!

Meyer ([www.meyersound.com](http://www.meyersound.com)) expands its MILO powered loudspeaker family with M'elodie, a 29x9.5x13-inch (WxHxD) compact curvilinear array. Designed for fixed installs in theaters, clubs and houses of worship, as well as corporate A/V, M'elodie

## NSCA TOP 10 HITS

can provide downfill/sidefill in a larger system with MICA arrays or provide under-balcony or frontfill coverage. Shipping this month, the 65-pound unit offers 100-degree horizontal dispersion, 131dB peak SPLs and a 70 to 18k Hz response.

Renkus-Heinz ([www.renkus-heinz.com](http://www.renkus-heinz.com)) showed its Iconyx digitally steerable array. Versatile and musical, systems are based on a number of powered 8-channel "stick" modules (each about 4 feet long), which can be combined to form tall columns for greater



Soundcraft previewed its Vi6 large-format digital live board at NSCA.

"reach" and used as is or with optional subs. R-H's BeamWare software can tweak the vertical pattern (symmetrical, asymmetrical, dual or custom) and aiming angle. A slick, hinged wallmount simplifies installs and gives precise horizontal control.

Roland ([www.roland.com](http://www.roland.com)) demoed its RSS Digital Snake, A/B'd against line-level signals over 300 feet of traditional copper snaking. The difference wasn't subtle at all: The analog had no top end or punch. Other advantages include running 40 channels of 24/96 over a single Cat-5e cable, simple "splits" using Ethernet switching hubs and ease of redundancy, as well as remote-controllable preamps, scene recall, low 375ms latency and PC/Mac software for configs and monitoring.

The Smaart measurement/analysis software from SIA Software ([www.siasoft.com](http://www.siasoft.com)) grows up: Version 6 adds a mode for viewing two measurements simultaneously, enhanced impulse response, greater storage and display capabilities, and multichannel input device support (ASIO or Core Audio). But the big news is a reworked architecture so that Smaart can run native under Mac OS X and Windows, with support for Intel-based Macs coming soon.

Soundcraft ([www.soundcraftdigital.com](http://www.soundcraftdigital.com)) previewed its Vi6™ large-format digital live desk. The Vi6's fast, intuitive operation (using touch-screen color TFT monitors with rotary control/switches mounted on the glass) is based on Studer's Vista consoles. Standard are 64 input channels in two layers of 32 motorized faders assignable to 32 outputs, which can be groups, auxes or matrix outs, plus stereo and mono mixes. FaderGlow™ multicolor LED illumination—orange for aux sends, green for groups, etc.—marks fader assignments for status at a glance. I/Os are in a stage box that connects via MADi over Cat-5 to the board (or a second Vi6 for monitors), and the desk can act as control central for an HPro HiQnet system of networked wireless, DSP, amps and speakers.

NSCA returns to Orlando next year, March 15 to 17, 2007. See you there! ■



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# It Came In a Box With a Hole

## And Other Service Nightmares

Shop life might be predictable in the service department of an equipment manufacturer or major retailer. But in my reality, what may arrive at any given time can defy all expectations. Even with notes, there are times when gear I thought I knew tests my skills. Here's a blog of the highs, the lows and the midrange.

### HOLEY BOX!

Figure 1 shows every repair facility's worst nightmare. You could blame the carrier (and many people do), but this is *the* reason to double-box and make sure each box is well-stuffed. It's fairly typical for the Modutec meters on this UREI 1178 (and other vintage UREI products) to get shaken from their moorings, but don't be inclined to over-tighten the mounting hardware, which will only increase the possibility of cracking the plastic frame. (We often install rubber bumpers on the lid to keep the meter in place.) Fortunately, no serious damage was done—this time.

### DATS ARE STILL THE WAY (SOME LIKE IT)

Rackmount DAT decks are still a popular choice in applications such as radio/video production and in mastering/preservation, when archiving/transferring audio libraries to disk media. Despite occasional transport issues, DAT recorders have at least one plus: As they have no fans, hard drives or monitors, they suffer no whirs, whines or high-frequency hash. In the broadcast environment, they can reside in the control room or studio.

Despite all of the advances in location recording technology, DAT is still part of the equation, even if relegated as a backup. Six Fostex PD-4s and one PD-2 (all timecode portables) recently saw bench time. Many of the problems are due to cold solder joints, heat-damaged capacitors and something new-ish—flat cables that have flexed or creased one time too many. Very popular in manufacturing everything from DAT decks to consoles to laptops, these not-so-flexi ribbon cables save lots of space, but when they're over-folded, they can create vulnerability. Note: Fostex no longer stocks this part, so I'm working on alternatives.

### SPEAK UP

Also seated at the bench are various U87s, 414s, an RE20 and vintage classics such as an SM69 (a stereo U67 outfitted with a pair of AC-701 vacuum tubes) and two U47s. The 87s most often have dirty or punctured capsules from all those unnecessary vocal close-ups. (Always use a pop filter.) If the mic dies on a plosive, it is because the capsule has become sensitive to humidity and should be inspected by a professional.

Of the mechanical problems, two of the 414s had cracked frames (nice *on* drums but not *as* drums). Both



Figure 1: A UREI 1178 arrived in this box with a hole in it. The force was enough to dislodge the meters.

the SM69 and the RE20 had lost a press-fit pin. On the former, the pin limits the upper-head's rotation to less than 270 degrees; on the latter, it prevents the connector section from rotating. In both cases, pin failure allowed for damage to the internal wiring. It's a classic case of a seemingly innocuous (yet still missing) \$0.50 part leading to major problems and a big-time repair bill.

During the burn-in process, the SM69's power supply also requested attention, eventually revealing the most typical ailment: hum from dried-out capacitors in the power supply circuit.

Then a pair of U47s warmed up the joint—at least, once they were working. There was a noisy Telefunken version (Fig. 2) that was more BLUE than Neumann; its VF-14 had been replaced by an EF-86 that its current owner changed several times to no avail, blaming the mic for “eating tubes.” Inside, a solid-state section—designed to protect the original VF-14 from rude awakenings—decided it wanted to “improvise.” Unlike a vintage mic, documentation was not available. I got lucky, but not before blaming the power supply.

The owner of the other U47 feared the worst—that the World War II-era VF-14 vacuum tube had bit the dust and the mental gymnastics that go into the process of deciding what to do. Functional U47s with a VF-14 are both rare and extremely valuable—the more original, the better—but the VF-14 is more than scarce, selling for about \$1k or more, *if* you can find one.

Modification to any of the alternative tubes is similarly





costly. Sadly, it can also kill the mic's value for those who own one as an investment. That's not my MO, but I do understand that a modification often needs to be reversible. A mic or any piece of vintage gear comprises a handful of "precious" component parts—in this case, the capsule, the tube, the output transformer and even the grille each contribute a good 25 percent of the magic. And, of course, the sum is greater than the parts.

So how could a U47 with a functional VF-14 still exist in this century? A major reason is that the tube's 50-volt filament runs at 35V. Operating at 70 percent of rated value obviously extends any tube's life and this should be taken into consideration if a tech is replacing it with the pin-compatible EF-14, which has a 6.3V filament (70 percent of which is 4.41V). Using this tube minimizes, but does not eliminate, alterations to the mic and the power supply.

**REEL DEALS**

Like DAT, analog tape machines serve two purposes—archiving and recording—so there are several online support groups keeping the flux energized. Check out [sony\\_apr](http://groups.yahoo.com/group/sony_apr) at [http://groups.yahoo.com/group/sony\\_apr](http://groups.yahoo.com/group/sony_apr).

If you're in the market for a used professional machine, then buy it from a company that specializes in restoration. Semi-pro/narrow-format machines are a whole other kettle of fish; "buyer beware" comes to mind. As a buyer, you must insist on better-than-average packaging. All analog machines are heavy and must be double-boxed with double- or triple-walled cardboard. Check out [www.uline.com](http://www.uline.com) for options. Insure for the original purchase price.

**CATCH OF THE 'BAY**

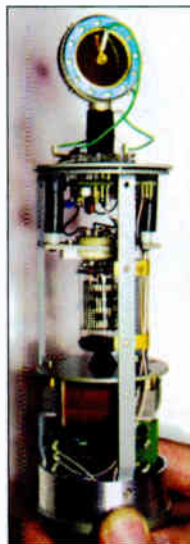
Okay, call me anti-capitalist and all the associated "pink-ness" that goes with my leftist leanings, but I find the process of flipping—buying undervalued stuff and reselling for a profit—distasteful. Much of the vintage stuff on the Web is so in need of major TLC that raising the price only makes it harder for everyone down the line to do justice to the resuscitation process. Bringing the device into this century is costly (and

therefore less likely) if the end-user paid too much and then judges the now-weary circuitry to be less than magical.

For all of the above-mentioned gear (and then some), the key ingredients to a successful restoration are time, patience and money. Time is required not just to do the work, but to make sure that *all* of the problems stay solved. We run stuff for a few days, cycle off for a few more, power up and then play with it for a while. Patience means never having to say, "I shouldn't have rushed." Sometimes, this means taking a whole front panel off just to be able to reinstall the meters without stressing the wiring and everything in the neighborhood.

And money—where would we be without that? ■

*Eddie would like to thank Logan, his nimble-fingered assistant, along with all of the customers who keep his geek skills sharp. Visit [www.tangible-technology.com](http://www.tangible-technology.com) for more.*



**Figure 2: This BLUE-restored Telefunken U47 has a replacement KK47 capsule and an EF-86 tube.**

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World Radio History



# Musikmesse/Pro Light+Sound

## Pro Audio Takes Center Stage

A lot of trade shows are large, but in the field of pro audio/M.I. events, Frankfurt, Germany's Musikmesse/Pro Light+Sound (March 29 to April 1, 2006) takes the prize, with 14 exhibit halls showing the latest gear from 2,321 companies. There was plenty to see, but this time around, it was pro audio—rather than musical technologies—grabbing most of the headlines.

Midas (www.midasconsoles.com) unveiled its long-awaited XL8 Live Performance System, which goes beyond the duties of a digital console, providing an open-architecture, cross-platform, integrated audio control and distribution

system for handling all audio aspects of a live performance from a single control center. Midas' emphasis was creating a high-performance, 96kHz system with the reliability of distributed pathways, redundant routers, dual stage boxes, multiple DSP engines and a separate control computer on each of its five console bays for fail-safe operation. Everything runs over a standard Ethernet physical layer, but uses a proprietary MidasNET protocol, which avoids Ethernet packeting to offer low, ideal-for-IEM latency. The stack-for-more I/O stage boxes each include

24 remoteable mic preamps with three (recording/broadcast/monitor) analog mic splits linked to 96 channel inputs (plus 16 mic/line aux ins). Color-coded controls, 72 faders, single-function paging knobs, and high-res, daylight-view TFT screens are included for ease of use.

In fact, new digital consoles for live sound seemed to be the



Midas XL8 Live Performance System supports all audio aspects from a single control center.



Neumann TLM 49

talk of the show. Soundcraft (www.soundcraftdigital.com) officially launched its Vi6 (previewed in the NSCA report on page 92). Digital console pioneers InnovaSon (www.innovason.com) celebrated the 10-year anniversary of Sensory, its first digital live board, and showed its new EtherSound-enabled Dio Core stage boxes for its current Sy40, Sy48 and Sy80 mixers.

### LOUD, LOUD LOUDSPEAKERS

Nexo's (www.nexo-sa.com) GEO D three-way vertical array features two 8-inch side-firing mids, a front-facing single 12-inch and a 3-inch voice coil HF compression driver on the company's Hyperboloid Reflective Wavesource. The 55-pound, 14x29x30-inch cabinet is used with at least four boxes per side, and its Geobumper rigging allows flying up to 24 GEO Ds. Nexo's cardioid GEO Subs for extended LF are available, as is a stage stack option.

Turbosound (www.turbosound.com) expanded its Aspect Series with the TA-500, a three-way trapezoidal box with a 15-inch LF, 10-inch cone mid and HF compression driver on Polyhorns™, so it's voiced like the longer-throw Aspect TA-880 boxes but designed for wide-dispersion applications. Alcons Audio's (www.alconsaudio.com) SR9 is an ultra-compact ribbon tweeter speaker designed for high-fidelity, wide-splay use, such as frontfill or under-balcony. Electro-Voice (www.electrovoice.com) reintroduces its popular Manifold Technology with the Phoenix Series, updated with dual 2-inch ND2 neodymium drivers (with rotatable horns) on all of its top and monitor cabinets and the company's new DXV woofers on the bottom end.

### EUROMICS!

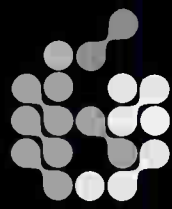
Neumann (www.neumannusa.com) has begun initial deliveries—full production starts this month—of its TLM 49 large-diaphragm cardioid studio mic. The mic combines the famous TK47 capsule from the company's M49 and U47 models with transformerless, low-noise electronics, but has a response rise between 2k and 3 kHz for a warm, vintage vocal sound; the capsule is surrounded by a large, acoustically open head grille. Retail is \$1,699.99, including shock-mount.

Coming later this year is Microtech Gefell's (www.microtechgefell.de) UM 930, a large-diaphragm, dual-capsule studio condenser with five switchable polar patterns and low 7dBa noise performance.

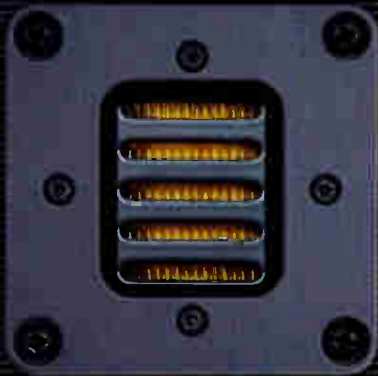
## Certified Hits

### TOP 10 COOLEST PICKS (LISTED ALPHABETICALLY)

|                         |                           |
|-------------------------|---------------------------|
| ADAM Audio A7           | Moog Little Phatty        |
| Elysia Alpha Compressor | Neumann TLM 49            |
| Focusrite Liquid Mix    | SPL Passeq                |
| Genelec DSP Series      | SSL Duende                |
| Midas XL8               | TC Electronic Konnekt 24D |



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New from Belgian mic maker Aevox Audio ([www.aevox.be](http://www.aevox.be)) was a line of miniature mics, including lavaliers, an M Series of omnis for classical recording and the In-Ear Microphone. Built to look like earbuds, the latter fits in each ear, making your head into a binaural mic—ideal for stealth recordings for documentaries or sound effects gathering. Along a different line was the Alva (dist. by Synthax, [www.synthax.com](http://www.synthax.com)) Micorder, which packs a solid-state recorder into a mic body, with headphone out, MPEG or linear 48kHz PCM recording, and up to 2GB storage on removable SD cards.

### SIGNAL PROCESSING

In past shows, the emphasis was on software plug-ins. This time, hardware was king. Focusrite's ([www.focusrite.com](http://www.focusrite.com)) Liquid Mix takes the concept of its Liquid Channel preamp emulations and hosts 32 channels of classic EQs and vintage compressors—all available simultaneously to your DAW, appearing as a separate VST/Audio Units/RTAS effect, working within all major apps, including Pro Tools. Control is via an onscreen GUI or from the desktop unit, which houses all the DSP (no CPU strain) and connects via FireWire. Shipments begin this quarter.

Speaking of onboard DSP, TC Electronic's ([www.tcelectronic.com](http://www.tcelectronic.com)) Konnekt 24D is a 14x14 (in/out) FireWire recording interface with stereo mic and DI inputs, built-in Fabrik C channel strip and Fabrik R reverb (adapted from the company's PowerCore), and low-latency drivers for Mac OS X, Intel-based Macs, Windows XP and all apps supporting WDM, ASIO and Core Audio drivers. The DSP can be accessed while tracking, mixing or stand-alone (without computer).

A new face at Musikmesse, SSL ([www.solid-state-logic.com](http://www.solid-state-logic.com)) not only launched its second-generation AWS 900+ console/controller, but also demoed Duende, which puts part of the DSP power of its C Series digital mixers into a single-rackspace box. Connecting to your DAW (Mac now, PC later this year) via FireWire, it offers up to 32 channels of SSL EQ and dynamics processing at up to 96 kHz while leaving host CPU resources free to run native plug-ins.

Another Messe newcomer, Neve ([www.ams-neve.com](http://www.ams-neve.com)) showed the 8803 dual-channel rackmount EQ/filters, with circuits based on Neve's classic 8108 design, but with expanded frequency and Q ranges. Settings

can be tweaked and stored from the front panel or via a Mac/PC utility. Neve also demoed the 8804, which adds 16 long-throw faders to control its 8816 summing mixer.

Formerly with SPL, Elysia ([www.elysia.com](http://www.elysia.com)) co-founder Ruben Tilgner created products such as Transient Designer and MixDream. Based on all-discrete Class-A topology, Elysia's Alpha Compressor is a high-end box that features parallel compression with "wet/dry" control, integral M/S matrixing and more.

SPL ([www.spl-usa.com](http://www.spl-usa.com)) showed Passeq, a monster stereo EQ that combines three different passive EQ designs in one unit. Each channel features Lundahl I/O transformers and 72 passive filters (36 boost/36 cut per channel), followed by a gain makeup stage with SPL's Supra op amps running on 120-volt rails providing +34 dB of headroom and a 116dB S/N ratio, for a stunning 150dB dynamic range. Retail? Around \$5k. Less monumental perhaps are SPL's Volume2 and Volume8 analog stereo and surround monitor volume controllers, providing a low-cost/high-quality solution to the age-old "my DAW doesn't have a volume knob" dilemma.

More complex is Centro, Audient's ([www.audient.co.uk](http://www.audient.co.uk)) stand-alone master section for the DAW studio, with rackmount I/O and a desktop remote. Centro offers monitoring from six stereo digital/four analog sources, routing of two performer cue mixes and built-in talkback control of three speaker pairs and a sub. Shipments begin this summer.

### MONITOR WORLD!

Genelec ([www.genelec.com](http://www.genelec.com)) turned heads and ears with its new bi-amplified 8200 Series monitors and 7200 Series subs. Both are based on its acclaimed 8000 and 7000 speakers, but incorporate DSP and network control so systems can be quickly set up, measured, analyzed and calibrated. All accept AES/EBU digital (32 to 192 kHz) or analog signals, and include a measurement mic, Genelec Loudspeaker Management and AutoCal™ (PC/Mac) software. These connect via standard Cat-5 cabling to emulate the rear panel DIP switches, add shelving and notch



Moog Little Phatty

filtering for adjusting to the room response, and provide remote-control capability for volume, solo and mute functions from a computer, USB device or custom console.

Based on its \$49,000/pair ADM Zero monitors, KS Digital's ([www.ksdigital.de](http://www.ksdigital.de)) Line-Master is designed for far-field mastering/critical-listening applications. Line-Masters feature FIRTEC digital room EQ, digital and analog inputs, 650W tri-amping and a slot waveguide for smooth HF performance.



Focusrite Liquid Mix

ADAM ([www.adam-audio.com](http://www.adam-audio.com)) monitors have earned their share of fans during the years. Now, ADAM offers the A7, a 100W bi-amplified system with folded ribbon tweeter and a 6.5-inch woofer for a low \$999/pair. An optional 160W Sub8 subwoofer with wireless remote control is \$699.

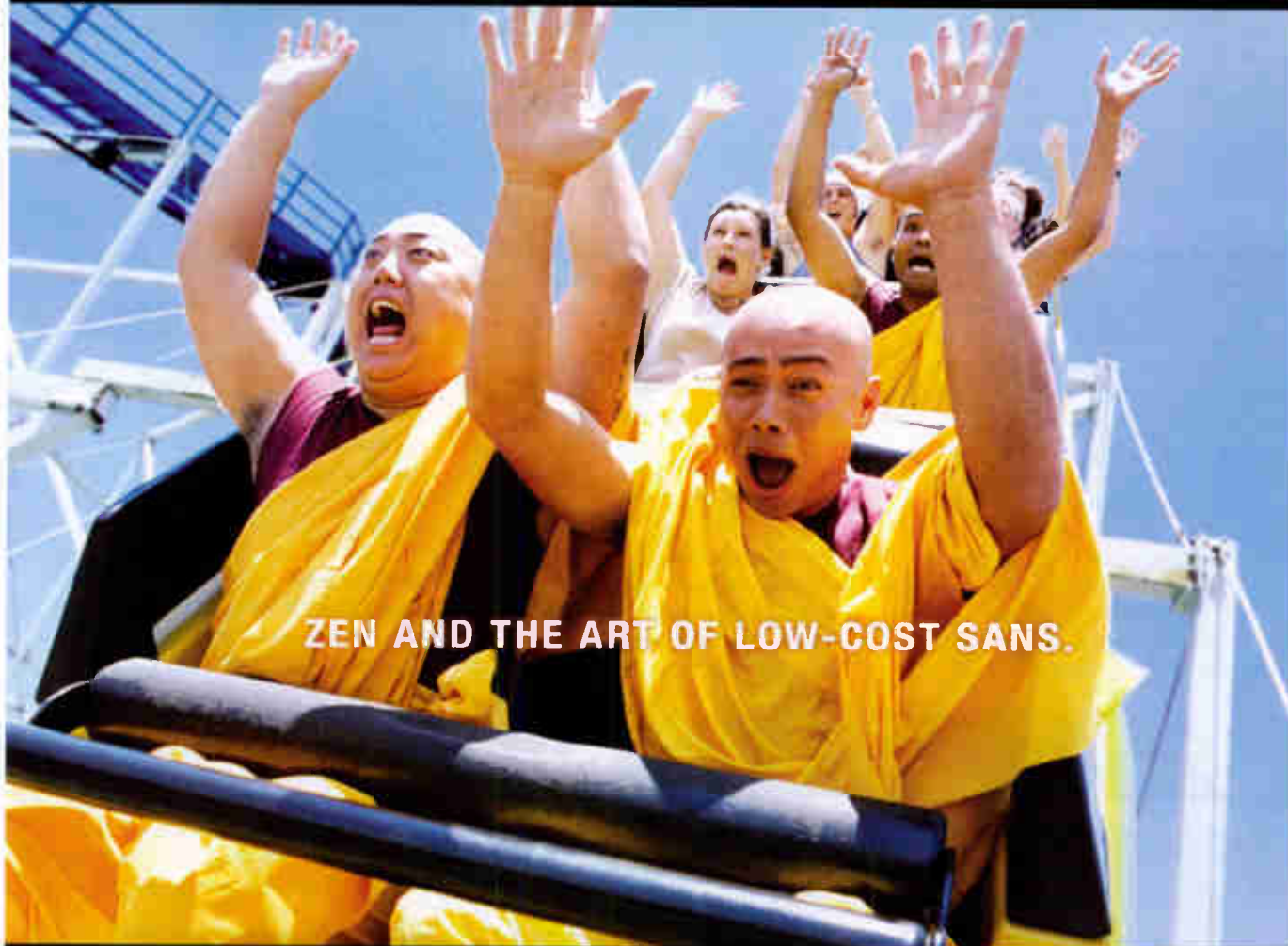
### AND MORE

We couldn't cover a music show without selecting a fave music toy. Our choice? Moog Music's ([www.moogmusic.com](http://www.moogmusic.com)) Little Phatty (\$1,475), a 37-note monophonic synth with a sound engine designed by the late, great Bob Moog. Zero-latency RAC™ (Real Analog Control) links the front panel knobs directly with the analog circuitry. Other features include 100 user-editable presets and onboard pre/post-filter distortion. Oh, it sounded great and was a blast to play.

Musikmesse/PL+S returns to Frankfurt next year from March 27-31, 2007. Auf Wiedersehen! ■



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## Tools of the Trade



### WUNDER AUDIO PAFOUR

Just when we thought good things came in threes, Wunder Audio ([www.wunderaudio.com](http://www.wunderaudio.com)) proved us wrong with the PAFOUR (\$2,795) 4-channel preamp. The 19-inch rackmount unit features a fully Class-A, discrete 1970s-style mic pre using the exact mic pre circuit as the one in the company's PEQ1. The design uses custom mic and output Mu-Metal transformers, and the unit also features a line input stage offering 60 dB of gain and an additional output stage amplifier that adds even more headroom. Each preamp includes a gain knob, phantom-power switch, mic/line switch and a polarity reverse switch.



### ELYSIA ALPHA COMPRESSOR

This high-end and versatile mastering compressor from Elysia ([www.elysia.com](http://www.elysia.com)) offers a switchable M/S matrix that allows for separate processing of centered and left/right panned signals. Other features include integrated, sweepable EQ; sidechain gain and frequency control; and complete control over the mix of separately processed elements. The design is based on 100% discrete analog technology and uses oversized power supplies, incremental and encapsulated conductive plastic potentiometers with detents, internal heat sinks for critical components and four high-quality toroidal transformers. Signal

processing is realized with single transistors in permanent Class-A mode, with the sidechain and power supply comprising fully discrete circuits.

### DISC MAKERS REFLEX SERIES DUPLICATORS

The Reflex Series of duplicators from Disc Makers ([www.discmakers.com](http://www.discmakers.com)) has been re-engineered with NED 16x DVD/48x CD writers, an all-new controller with a 128MB buffer, the ability to rename files stored within the hard disk and separate user accounts with password protection. The prices have also been revamped with the single-drive Reflex 1 now at \$299, dual-drive

Reflex 2 at \$549 and the 10-drive Reflex 10 at \$1,290. The Reflex 2 can duplicate up to 16 DVD±Rs per hour or up to 31 CD-Rs per hour, and the Reflex 10 is capable of duping up to 80 DVD±Rs per hour or up to 150 CD-Rs per hour. The units come with 100 free Disc Makers Ultra 52x CDs or 50 16x DVDs, plus discounted pricing on future blank media purchases and free technical support for one year.

### SONIC REALITY R.A.W. UNIVERSAL GROOVE KIT

Sonic Reality's ([www.sonicreality.com](http://www.sonicreality.com)) latest loop library, the R.A.W. Universal Groove Kit two-DVD collection, features more than

5,000 stereo loops in 24- and 16-bit formats. The content includes R&B, funk, electronic, hip hop, rock, jazz, country, Latin, blues and TV/film scoring, among others. The library is delivered in REX2 format for total control of the tempo and feel. The collection is ready for Propellerhead Reason/Dr. Rex, Spectrasonics Stylus RMX, Apple Logic/GarageBand, Digidesign Pro Tools 7, Steinberg Cubase/Nuendo, Cakewalk SONAR/Project5, FL Studio 6 and more.

### SWITCHCRAFT STUDIOPATCH PATCHBAYS

Two new additions to the Switchcraft ([www.switchcraft.com](http://www.switchcraft.com)) line of patchbays include the 9625 version (\$1,200), with 96 patch points to DB25 rear connections, and the 96DL version (\$1,200), which offers 96 patch points to Cannon DL rear connections. Both units use the EZ Norm jack, which allows for quick normalizing changes from the front of the patchbay, and have bused grounds for phantom power.

### EAST WEST URBAN ELEMENTZ

This collection of East Coast hip hop and R&B loops and samples from East West ([www.soundsonline.com](http://www.soundsonline.com)) features more than 1,350 samples and 1.5 GB of beats, keys, basses, guitars, synths, strings, licks, fills, percussion and more. Urban Elementz (\$99.95) features 35 full construction kits with bpm's ranging from 65 to 114, plus hundreds of scratches and a bonus section of drum hits. Supported formats include Acid WAV, AIFF Apple Loops, Stylus RMX, REX2, Reason ReFill, Kontakt, EXS24 and HALion.

### PRIMERA BRAVO XR-BLU DISC PUBLISHER

Am I Blu? Not yet, but if Primera ([www.primera.com](http://www.primera.com)) has its way, we will all be burning 50 GB of data onto a single disc in

no time. The XR-Blu Disc Publisher (\$5,995) is said to be the world's first automated CD/DVD burn-and-print device to support new high-capacity Blu-ray disc recorders and media. The unit offers built-in robotics and full-color, direct-to-disc inkjet printing, and incorporates Pioneer's new BDR-101A Blu-ray disc/DVD recorder. The included Blu-ray-enabled recording software is based on Sonic Solutions technology. The initial release uses single-layer discs to store up to 25 GB of data, but a soon-to-be available upgrade will allow dual-layer media storing up to twice the data.



### EZQUEST THUNDER PRO A/V STUDIO RACK 8

EZQuest ([www.ezq.com](http://www.ezq.com)) offers a simple and affordable way to keep drives organized. The Thunder Pro A/V Studio Rack 8 racks and stacks eight drives side by side and can operate in RAID 0, RAID 1 or RAID 5 configurations. The unit also offers two separate 4-drive channels, two FireWire 800 ports, one USB 2 port, one FireWire 400 front-access port, two fans with a thermostat and warning buzzer, and a two-year warranty. The rack ships without drives, weighs 28 pounds and is cross-compatible for PC or Mac.

### NON STOP MUSIC CUEGLE

Powered by an advanced and user-friendly search engine, Non Stop Music's ([www.nonstopmusic.com](http://www.nonstopmusic.com)) CUEgle is a music-cue download service for sound-for-picture professionals looking to put the finishing touches on their productions. The collection comprises 1,100 CDs with more

than 35,000 tracks marked by easily identifiable names such as "Action Premier 1" or "Suspense 4"; each track can be clicked on to reveal a quick description and length. Each MP3 track can be fully previewed and downloaded straight to the user's desktop, where it can then be inserted into a project. Those who need higher-quality WAV or AIFF files can search online and then pull the files from a CUEgle-supplied hard drive. Non Stop's music consultants are available 24/7 to answer questions and make library suggestions. Visit Non Stop Music's Website for info on licensing and needle-drop pricing.

### ZAXCOM TRX900, TRX990 MIC TRANSCIVERS

These two digital wireless mic transceivers from Zaxcom ([\[zaxcom.com\]\(http://zaxcom.com\)\) are purported to be the first such units with integrated recording and a timecode transmission feature. Users can record up to six hours of audio directly to a Flash memory card and then transfer the WAV files to either a PC or Mac for post-production. Features include tri-level, NTSC and PAL timecode sync \(generated during recording\); transmission of two channels of audio and timecode to a single receiver on the camera; and built-in IFB, eliminating the need for talent to wear two separate bodypacks. In addition, an RF remote control lets the user change mic gain, highpass filter or selected channel settings from up to 200 feet away. The TRX900 \(\\$1,960\) system is designed for use with a lavalier microphone. The TRX990 \(\\$2,995\) is engineered as a complete solution for boom pole-type transmitters and offers two audio channels with integrated phantom power.](http://www.</a></p>
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### SENNHEISER E912 BOUNDARY MIC

Sennheiser's ([www.sennheiserusa.com](http://www.sennheiserusa.com)) e912 (\$345) boundary mic is targeted for a wide variety of applications, including recording kick drum, speech, acoustic instruments and piano. The pre-polarized condenser features a half-cardioid pickup pattern and has a frequency response from 20-20k Hz and maximum SPL of 136 dB. The handsome 12-ounce unit comes in black or white, and offers integrated preamp electronics and a rubber-coated underside, protecting its gold-plated XLR-3 connector by mounting it flush inside the mic enclosure.



### SPECTRAL COMPUTING RM-7400

The top-of-the-line RM-7400 computer from Spectral ([www.spectralcomputers.com](http://www.spectralcomputers.com)) is available in both an Intel 930 Pentium D Dual Core with 4MB cache (two per core) 800 FSB-based model or an AMD Dual Core 4400+ model. Features include 4 GB of RAM (DDRII 667MHz dual-channel, Intel; DDR 400MHz dual-channel, AMD), a 74GB SATA 10,000 rpm 4.5ms system hard drive, four 250GB (1 Terabyte) SATA II RAID recording hard drives and a 400GB removable SATA II backup drive. In addition, the unit carries an Nvidia PCI Express 6600 16x dual-head video card. Any Spectral system can be upgraded or altered to the user's specifications. All systems are designed, built, tested and then qualified as meeting or exceeding the system requirements of pro audio software.



# Digidesign Pro Tools HD 7 Software

## DAW Upgrade Expands Menus and MIDI, Improves Performance

**P**ro Tools HD 7 (Mac OS X and Windows XP) is an elegant and refined workstation upgrade that combines greatly enhanced processing capabilities with tighter integration of audio recording/editing/mixing and MIDI sequencing. Included in the upgrade are a lot of welcome features that users have been asking for, including the ability to copy and move sends and drag any type of audio file directly into the timeline. In addition, plug-in performance is vastly improved, and Digidesign has made MIDI a larger priority. All this adds up to an upgrade that is a no-brainer right out of the box.

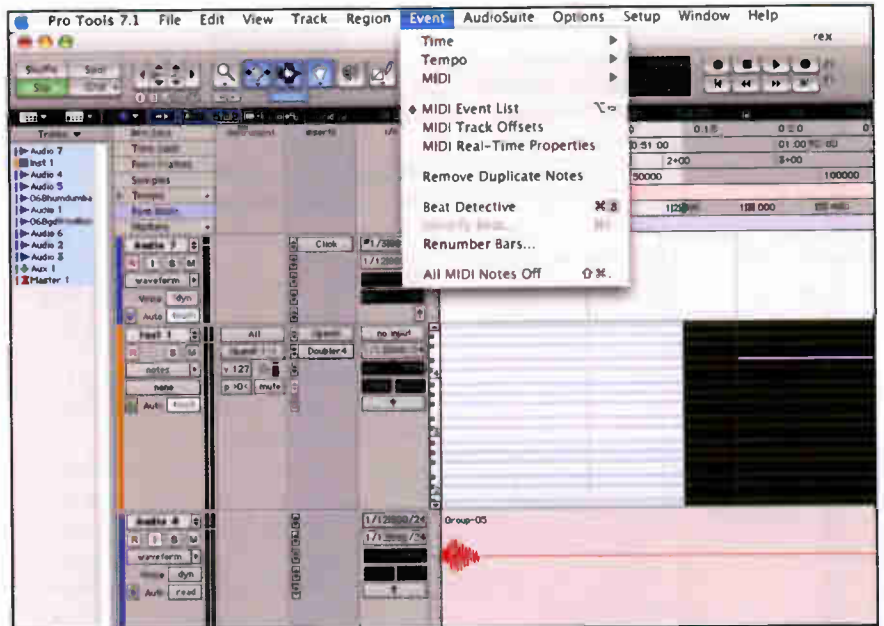
### GETTING TO KNOW YOU

Version 7 is a paid upgrade you can buy online (\$245, CD; \$175, software online) and requires an iLok dongle. For this review, I installed V. 7.1.csf into a Mac G5 quad-core with 4.5 GB of RAM running OS 10.4.2, HD 3 PCIe cards and a single 192 I/O unit. On launching a session, the first thing you'll notice is the reorganized set of drop-down menus. I found this reshuffling logical, even though I would occasionally have to hunt around for little-used commands.

New menus called Track, Region and Event have replaced the Movie and MIDI menus. Track has everything to do with tracks: creating, deleting, duplicating, grouping, split to mono, etc. When a track region is selected in the Edit window, Region controls its properties; included is a new feature called Region Grouping (more on that later). Event is where most MIDI commands, tempo manipulations and Beat Detective now live.

The shorter File menu has, in addition to its usual Open and Save dialogs, import for movies, session data, region groups, audio, audio from QuickTime movie, MIDI to track and MIDI to region. File is also where you can export session data as text and where OMF export occurs.

The Setup menu is the same as Session Setup except that it now contains the controls for offsetting movies to timecode, the MIDI interface setup and click settings. Also new is the resizable I/O window, which is a big help if you have a large system with numerous I/O boxes. In general, most of the dialogs and contextual menus are rede-



The Event pull-down menu is where most MIDI commands, tempo manipulations and Beat Detective now live.

signed with many subtle changes that make life a lot easier. Apart from the very small icons added to sections of the Edit window, the interface looks largely the same as it previously did.

### HTDM OUT, RTAS PERFORMANCE IN

Digidesign claims a 150-percent RTAS performance improvement in Pro Tools HD 7 TDM and LE systems as long as you are running a dual-processor or dual-core computer. Increasing the number and types of plug-ins possible has rendered (for other reasons) the HTDM format obsolete. One of the first dialogs I got when instantiating a plug-in was something like: "This plug-in could not be made active because this version of Pro Tools does not support HTDM plug-ins. If you cannot convert the plug-in to RTAS, please contact the manufacturer for an updated version." I had no problems because plug-in developers offer RTAS versions of their wares anyway. If you start up an old session that used HTDM plugs, an RTAS session will usually replace them. Otherwise, you'll have to check with the plug-in manufacturer for an updated Pro Tools HD 7 version.

For my totally unscientific test of im-

proved RTAS performance, I played 49 tracks of mono audio, set RTAS processors to four (the quad-core Mac allotted all four processors to handle RTAS processing), CPU usage limit at 95 percent (max), 96 voices using two DSP processors, sample rate at 44.1 kHz and DAE playback buffer at Level 2 (default). I was able to instantiate 96 IK Multimedia T-RackS RTAS EQ plug-ins and 96 D-Verbs with more to go if I wanted; apart from my 48-bit TDM mixer at 78 percent, I still had all my TDM DSP resources. The PCI meter was at halfway, and the CPU was up about one third with 58 of 512 time slots used.

### BUT WAIT, THERE'S MORE

Version 7 supports up to 160 channels of I/O at up to 96 kHz; up to 10 sends per track (in two blocks of five), with drag-and-drop copy of send assignment and settings; and up to 999 marker memory locations. When you mouse over items in main windows, Tool Tips balloons (which you can turn on or off in Setup/Preferences/Display) will show function names and details, such as which plug-in you have inserted. (Love this.) Mixer fader range is now fixed at +12 dB, and bounce-to-disk is a keyboard shortcut: Command+Option+B. The built-in DigiBase





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file-management system supports MIDI data and Redbook audio CD import for PC users. Speaking of PCs, Pro Tools HD 7 uses the same non-backward-compatible .ptf session file format on both PCs and Mac platforms.

Pro Tools HD 7 now imports REX and ACID files; I pulled .rx2 loop files directly from the Finder window onto a tempo-based session audio track without any conversion. The loop audio shows up as a Region Group with tempo information imbedded.

## REGION MANAGEMENT

Both audio and MIDI regions now show up together in a single region list in the right-side drawer of the Edit window. The default sorts by type, with audio at the top. Tracks of all types—audio, instrument (more later), MIDI, aux or master fader—are listed in the left-side drawer under Tracks.

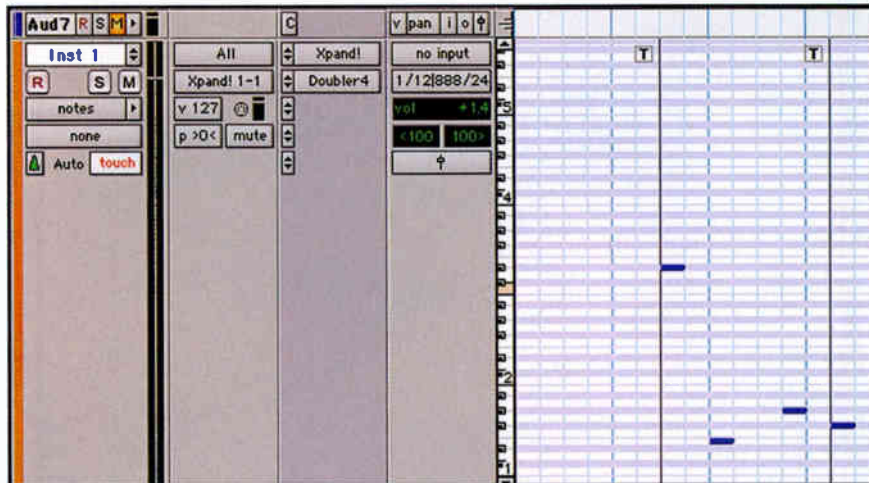
Region groups are collections of audio and/or MIDI regions; they can be thought of as a single track. Region grouping is a good tool when you are working on edit-intensive sessions, such as songs with chopped-up and quantized multitracked drum kits. Normally, tracks with many regions should be locked to keep the edits intact or (if they are audio) consolidated into a contiguous file. With region grouping, you can ungroup any time if you have to tweak an edit and then regroup to “fly” the entire region group anywhere.

You can group audio with MIDI tracks, as well as group together multiple region groups—great for working with large track-count sessions. It's also possible to loop a region group and know that all the internal edits remain intact. A selectable crossfading function smooths out any bumps between the head and tail of the looped region group. With REX loops, just change the tempo (using time compression/expansion) once at the start of the first file; the rest will change automatically. Unlike a mix group, all tracks within a region group retain their track mixer automation independence—cool beans!

## MIDI, MIDI, MIDI

Although Pro Tools HD 7 still does not have a graphical MIDI events editor page where all MIDI data and tracks are viewed at once, MIDI editing, sequencing and operation garnered special attention in this upgrade.

An instrument track channel strip combines an aux track with a MIDI track. The strip offers Record Enable, Mute and Solo buttons; volume and pan faders; sends; inserts; automation; delay comp; VU meters; and I/O like an audio channel, but adds MIDI I/O selectors, a velocity meter that indicates MIDI data



*Instrument track combines an aux and MIDI track into one channel; MIDI instruments insert into an instrument track like effect plug-ins. The instrument track view is offered in the Edit and Mix windows.*

input to that channel only, and MIDI mute, pan and volume controls. MIDI volume and track mixer volume are separate adjustments. MIDI instruments insert into an instrument track like effect plug-ins.

Like any other track feature under the View menu, an instrument track view is offered in both the Edit and Mix windows. In the Edit window, the instrument's piano keyboard (like a MIDI track) shows eight octaves (in Extreme), and you can click to show only a single note, saving vertical space; for example, if only a kick drum plays one MIDI note on that track. You can also audition (without changing or adding) any note by clicking and holding the Command key.

Pro Tools HD 7 introduces real-time MIDI operation governed by the Real-Time Properties window under the Event pull-down. Real-Time sets parameters such as note duration, delay, velocity, transpose and quantize with a choice of groove templates from the MPC, Logic, Cubase and Feel Injector. The updated Input Quantize window also has these groove templates.

Real-Time Properties can be applied to an entire track or to individual regions as needed on the fly. I found that I could audition the changes to a region but leave it as is. Later, if you want to commit to changes to just that region and/or others, you can “Write to Region” and see the change on the instrument track in the Edit window.

Instrument tracks or MIDI tracks with real-time settings other than the defaults display a “T” in the upper-right corner; changes to specific regions within that track display an “R.” Looped regions can use a new feature called Mirrored MIDI Editing, where an edit to one region applies to all other MIDI regions of the same name.

In earlier Pro Tools software, MIDI data defaulted to tick-based timing—bars/beats,

no matter the tempo change. Audio has always been sample-based, but Pro Tools HD 7 allows for audio and MIDI data to be either sample-based or tick-based. Tempo changes only affect the start or sync point of tick-based audio. Tick-based MIDI note data changes duration with tempo changes. Sample-based MIDI events stay fixed to the timeline despite tempo change. This is an incredible capability for the user who is composing, editing and manipulating film-score music to picture.

Offline MIDI editing benefits from many time-saving features. Split Notes offers the option of assigning the new notes to the clipboard, a new track or a new track per new note. This is great for untangling composite MIDI data or to reassign different instruments to certain note ranges. Select Notes (now combined with Split) has more criteria options such as velocity and duration. The new Remove Duplicate Notes removes dupes in a selected region, and under the Change Duration menu, Remove Overlaps leaves a designated gap between same notes.

## ALL-ENCOMPASSING SYSTEM

Pro Tools HD 7 is more than this year's model of Digidesign's flagship product, more than last year's model polished up with a few bells and whistles thrown in. Coupled with a dual-processor computer, this is a big jump in performance, speed and efficiency with many “power-user” features built in that are well-worth learning and adding to your style of working.

Digidesign, 650/731-6300, [www.digidesign.com](http://www.digidesign.com). ■

*Barry Rudolph is an L.A.-based recording engineer. Visit his Website at [www.barryrudolph.com](http://www.barryrudolph.com).*

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# Focusrite Saffire FireWire Audio Interface

## 4x I/O Design With Hardware-Powered Plug-Ins

Focusrite has extended its reach into the DAW I/O market with a 4x I/O, 24-bit/192kHz interface featuring dual-classic Focusrite preamp paths, hardware-side DSP and plug-in technology borrowed from its Liquid Channel and Forte Suite TDM lines. Also included is advanced software and monitoring control—all for \$499.

### GETTING LOOKS

Attractive in silver and stark-white, Saffire stands vertically on a base that can be pivoted to provide extra lateral stability for Saffire's 7-inch-tall stature. The simple front panel layout offers two analog input paths, switchable between the phantom-powered XLR and 1/4-inch instrument/line jacks that are located at the bottom of the panel. A pair of input gain pots (+13dB to +60dB mic/instrument; -10dB to +36dB line) and three LED level meters are located near the top. In the middle are S/PDIF and MIDI signal indicators, a MIDI Thru switch, main monitor level control with mute and dim switches, and dual 1/4-inch headphone outputs with independent volume controls.

Saffire's featherweight plastic fascia construction and cheap-feeling buttons and knobs initially threw me, but it's probably better that corners were cut here rather than in the electronics. However, I was quite disconcerted that there is no phantom-power "on" indicator—ribbon mic users beware!

The back panel sports eight 1/4-inch balanced line outputs intended (and suitably labeled) for stereo-pairs operation and 5.1/7.1 formats. Coaxial S/PDIF I/O, MIDI I/O (capable of acting as a 1x1 MIDI interface) and dual FireWire 400 ports round out the unit's connectivity. Capable of being powered by the FireWire bus (6-pin cable included), a 12-foot line-lump power supply is provided for computers that have only a 4-pin FireWire connection or that cannot supply enough power on their own.

### PRECIOUS CONTROL

The dual-platform installation disc contains ASIO drivers for Win XP (Mac OS X provides plug-and-play via Core Audio), SaffireControl software and the accompanying plug-ins that are essential for tapping into the DSP-based effects. These are "hard-wired" to

SaffireControl and can only process inputs and outputs, not individual tracks. The plug-ins are also provided in VST/Audio Units format so that you can freely use them for mixing within your DAW under host power. A free copy of Steinberg Cubase LE is also bundled to sweeten the deal.

More than an "audio panel" offered with other interfaces, SaffireControl is an elegant "mix surface" providing access to advanced hardware input processing, sequencer output busing and individual processing/mixing of all stereo outputs (monitor and headphone paths). On their way in, signals can be treated by Saffire's compressor, EQ and amp simulator, with foldback reverb available on the monitor paths.

What's fantastic is that all monitor routing and reverb levels are software matrix-controlled, not hard-wired, so you can easily create blends between DAW output buses and live inputs for each performer, all with zero latency and zero impact on your CPU. The software can be set to whatever level of complexity is required by the session, and a handy Float button keeps the control window in clear view at all times on a cluttered screen.

### PUT TO THE TEST

Saffire sounds amazing. I've heard stand-alone mono channel strips that cost three times as much and aren't as musically pleasing as the dual inputs here. The plug-ins, though simple, are top-notch in quality; I especially enjoyed the opto-compressor and natural room reverb, which sounds distinctly analog and favorably treated a wide range of program material with smooth responses with no noticeable artifacts. The rather vanilla-sounding 4-band EQ, though extremely good, won't offer any boutique coloration you may be after. Similarly, the amp models (generic British, American, combo and bass) probably



won't replace the tones of your favorite plug-in rig, but are versatile nonetheless.

With five separate stereo outs with DSP-based plug-ins on them, latency-free monitoring is child's play. From SaffireControl, I was able to create a surround monitoring mix and dual stereo headphone mixes using subgroups from my sequencer in a matter of seconds. This allowed me to send two performers different mixes simultaneously, blending each with varying degrees of hardware monitor 'verb on their input paths during tracking. And because I could set SaffireControl to float over my DAW, I was able to tweak effects and

adjust interface parameters on the fly and without missing a beat. A neat feature of the front panel monitor knob is that it acts on all outputs, not just 1 through 2, making it a master fader in surround mode. Cool.

The FireWire latency was impressively low at 4 ms in 44.1k operation, making Saffire an excellent choice for live, virtual instrument-based performances when teamed with a laptop. Being a Tascam GigaStudio user, though, I missed not having GSIF driver support.

### A REAL GEM

Saffire represents a marked turning point for compact audio interfaces. The first device in its class to deliver ultra-low latency, 192kHz HD audio, onboard DSP with integrated plug-ins and sophisticated monitor mixes with zero-latency reverb puts it head and shoulders above the competition. The transparent preamps and stellar converters are the kind of attention to sonic detail you'd expect from Focusrite.

Focusrite, 866/FOCUSRITE, [www.focusrite.com](http://www.focusrite.com). ■

*Jason Scott Alexander is a producer/mixer/re-mixer in Ottawa, Ontario.*

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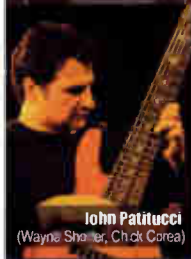
Chick Corea  
(Elektric band, Miles Davis)



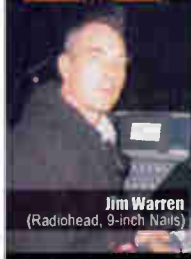
Rob 'Cubby' Colby  
(Phil Collins, Ricky Martin)



Dave Bottrill  
(Peter Gabriel, Tool, Silverchair)



John Patitucci  
(Wayne Shorter, Chick Corea)



Jim Warren  
(Radiohead, 9-inch Nails)



Phil Keaggy  
(Recording artist)



# BIAS Peak Pro XT 5 Bundle

## Mac Program for Editing, Mastering, Restoration and Authoring

**B**IAS Peak has established itself as a top stereo audio editing and mastering application on the Mac for many years. Five generations in, a host of new features has been added to the already robust application, addressing today's challenging editing needs, as well as the demand for CD creation and online delivery. Add to this the latest batch of BIAS mastering and sound-restoration tools, and Peak Pro XT 5 aims to be a one-stop stereo production and authoring solution.

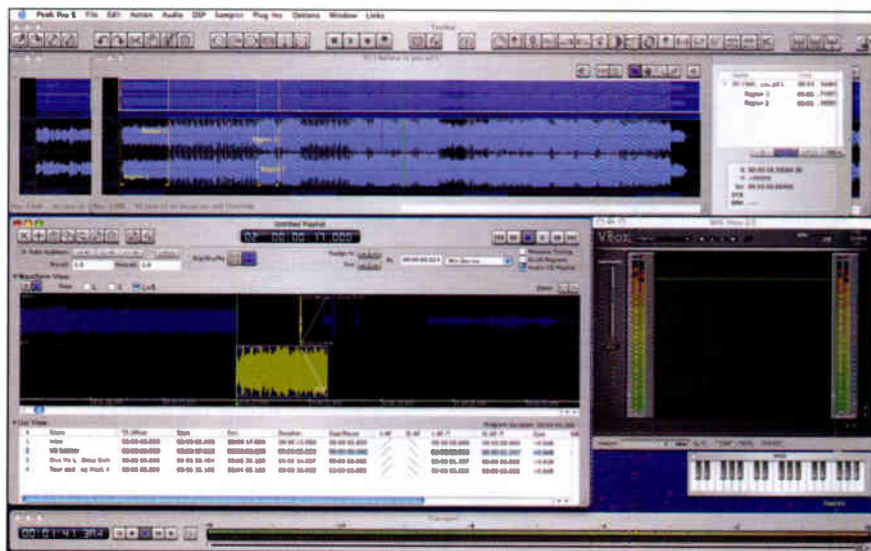
System requirements include a G4 or G5 desktop, iBook or PowerBook with at least 400MHz processor running OS 10.3.9 (CD Text requires Tiger), 256MB RAM and an available USB port (or USB hub) for the included copy-protection key. I tested it on a G5 dual 2GHz with 2GB RAM and Pro Tools HD Accel hardware. The current version runs on the new Intel-based Macs under Rosetta, and Universal support for PowerPC and the new Intel-based Macs should be available by the time you read this.

### A PACKAGE DEAL

The bundle's core technology components include Peak Pro 5 (Mac only), and both SoundSoap 2 and SoundSoap Pro (Mac and Windows), BIAS' highly acclaimed noise-reduction plug-ins. A new six-pack of included plug-ins—the BIAS Master Perfection Suite (available for multiple hosts on Mac and Windows by the time you read this)—represents an integral part of the XT bundle. For an extra \$200, you can get the XT Studio Edition, which includes BIAS' Deck 3.5 DAW software, adding full multitrack and 5.1 surround production. This bundle could be ideal for radio producers, for example, who are just getting into podcasting and now need the ability to arrange multiple tracks of music, voice, sound effects and more.

### PLUGGED-IN

Though Peak operates solely as a stand-alone application, much of its newfound appeal is thanks to plug-in technologies. Because of this, Vbox, Peak's intuitive graphic effects routing window, has been updated to Version 2, and now supports Audio Units and VST plug-ins, as well as



*Graphical placement in the Playlist window allows precise visual adjustment of crossfades, track times and indexes. Note the 4x4 Vbox matrix, which lets you chain instruments and effects.*

VST and Audio Units instruments, complete with automatic latency compensation and playback via a dedicated keyboard window or from an external MIDI controller.

As in previous versions, plug-ins can alternatively be instantiated via the five inserts. However, using Vbox 2's intuitive 4x4 matrix, you can mix and match instruments and effects, moving and re-routing them to create elaborate serial or parallel chain configurations. Custom configurations can be saved as Vbox presets for instant recall, and you can expand the matrix up to 99x99 cells—CPU willing!

Ideally suited to this kind of arrangement is the all-new Master Perfection Suite. Pitchcraft is an extremely powerful, real-time pitch-correction and transposition plug-in that handles everything from minor intonation problems to more outrageous sound design tasks, with and without formant correction. Repli-Q is an innovative EQ-matching plug, while SuperFreq is a 4, 6, 8 and 10-band parametric providing forensic- and mastering-quality equalization across a 20 to 20k Hz range, including -24dB to +24dB gain values, 0.1 to 30 bandwidth "Q" values, and a choice of peak, notch, high/low-shelf, high/low-cut filters on every channel. Based on Peak 4's powerful compression plug-in Sqweez, Sqweez-3 and -5 are multiband, linear-phase compressor/

limiter plugs featuring fantastic graphically representational viewing and editing of threshold and EQ across all available bands, with individual bypass, solo and intuitive filter crossover handles for each band. A variable "digital ceiling" slider controls the clipping headroom of the integrated soft-clip function.

GateEx is a super-charged look-ahead gate/expander tool with real-time graphical audio analysis as it's playing, allowing you to precisely set gate thresholds and tune out chatter using the unique Hysteresis knob. Finally, Reveal is seven powerful analysis tools in one plug-in interface, providing oscilloscope, peak and RMS power history, spectrogram, pan power, spectral analysis, Lissajous phase scope, and peak and RMS level meters.

Space doesn't allow me to go into detail on these plug-ins' exemplary interfaces, except to say that they look and feel fantastic, are great fun to work with and sound like a million bucks. I do enjoy the A/B/C/D compare toggles at the top of each plug.

Many of Peak's onboard DSP algorithms have also been improved, including Change Pitch, Change Duration and Sample Rate Conversion. New functions have also been added, such as Auto-Define Regions, Strip Silence and Envelope From Audio.



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**ADDED TO THE PLAYLIST**

In addition to the Playlist window of old, there is now a graphic waveform view featuring optional staggered or linear views with optimized Quartz 2-D drawing and transparency, allowing for precise visual adjustment of crossfades, track times, indexes and more. The Playlist also features unlimited undo/redo, support of keyboard-triggerable controls for auditioning and nudging, and bounce to multiple word lengths via POW-r dithering.



*SoundSoap Pro can be fine-tuned to remove subtle artifacts from dialog during post-production.*

Further productivity enhancements include preserving file resolution and type in the Batch File Processor; a new action for recovering some damaged audio files; and New Region Split command for faster region creation. Multimedia developers will appreciate Snap-to-CD Frames, PS2, Xbox Units or Custom Expression Evaluator in the Actions menu, making loop edits trouble-free. A much-appreciated high-resolution tape-style scrubbing facility also enhances the ability to find edit points.

**FEEL THE BURN**

Peak Pro 5 now offers 100-percent replication-ready CD burning with radio-crucial ISRC entry, writing CD track indexes, PQ sub-code editing, CD-Text and other advanced features conforming to the full Redbook specification. BIAS currently offers an optional extension for DDP file export, making it the only company to offer a cost-effective non-hardware-dependent DDP authoring solution for the Mac. Netcasters and online content providers can import and export WAV, AIFF, MP3, MP4 (AAC) and QuickTime formats. I am disappointed not

to see support for Ogg Vorbis, RealAudio, Flash and Windows Media.

**PEAK PERFORMANCE**

I've always loved Peak's powerful and nondestructive capabilities for detailed editing and manipulating audio that is typically not provided by DAWs, but the redesigned Edits History in the Contents Drawer in V. 5 is a real treat. With unlimited undo/redo and the ability to navigate back and forth in time to individual edit steps (much as how you would browse edits history in Photoshop), I used this feature to bounce between and compare many different crossfades, level changes, plug-in settings and segment placements with a single mouse click. Changes are not permanently applied to the file until you save it.

The redesigned Playlist also features unlimited undo/redo and allows sections of audio to be strung together in a specified order. Though its conventional use is clearly for assembling a Redbook CD playlist, I found it worked quite well when working on lengthy podcasts as I could develop them "modularly" or pre-map shows. For instance, I created templates where the intro theme music, featured music spots, public announcement/commercials and outros are already mapped.

Master Perfection Suite delivers all the goods a budding D.I.Y. mastering engineer would want, but I found Repli-Q's unique EQ-matching/linear phase capabilities particularly useful in a post-production setting. Because it can match spectral characteristics between files, I used Repli-Q to combine multiple vocal and instrumental takes that had been recorded in different environments or with different mics. Repli-Q did a wonderful job, preserving the symmetry of the waveform and the shapes of sharp transients with amazing accuracy.

Another high-quality process I found useful in Peak 5 is the new RMS Normalization DSP tool. Using an averaging approach to normalization (rather than peak), this tool allows you to enter the desired "average level" and then limit the "digital ceiling" to prevent clipping—all without the increased noise floor associated with regular normalization. The result is that the dynamics are evened out and the file's amplitude high and low points

are maintained but brought closer together, creating a much louder-sounding file. This is great for boosting the volume of material that was recorded at too low a level or, if used on multiple audio documents, to make sure that several files have a similar overall level.

SoundSoap 2 is like magic. Literally a set-it-and-forget-it plug-in, you tell it to "listen" to isolated noise, and within two seconds, it's on its way, removing clicks and crackles, hiss, hum, buzz, turntable rumble and more in real time. There can be a slight bit of aliasing detectable at extreme settings, but for the most part, preservation of program material is extremely good. For the trickiest of restoration tasks, though, SoundSoap Pro worked like a charm. Perfecting its myriad broadband and complex noise filter controls certainly takes some practice, but there likely isn't a dusty tape or ruined vinyl that can't be resurrected by its powerful parameter set.

**MORE THAN AN EDITOR**

There's something for everyone in this upgrade. Serious sound designers will benefit from the enhanced Vbox plug-in compatibility and virtual synth support. Broadcast and multimedia producers will love the new batch editing and playlist features that make child's play out of working with large volumes of audio, not to mention the efficiency of work flow that the high-resolution scrubbing and new region split command provide.

The biggest advancement, though, is in mastering and CD authoring. Master Perfection Suite brings a superb-sounding high-definition toolkit not only to Peak, but to any other application that supports VST plugs. And the replication-ready CD burning with optional DDP file export has been sorely needed on the Mac.

Will this unseat dedicated mastering systems that cost tens of thousands of dollars? Probably not. And without multitrack capabilities or edit lanes, Peak remains kludgy in composite editing and is not a candidate for working on surround stems. With so much offered in one bundle, though, Peak Pro XT 5 represents the most comprehensive stereo audio production-through-delivery solution you'll find today.

Prices: \$1,199; Studio Edition, \$1,399; Mac only.

BIAS Inc., 800/775-BIAS, [www.bias-inc.com](http://www.bias-inc.com). ■

*Jason Scott Alexander is a producer/remixer who develops frontier technologies for the recording industry and commercial radio.*



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# JazzMutant Lemur Control Surface

## User-Configurable Touchscreen MIDI Mapper

Whether you're mixing or performing, a hardware control surface is a wonderful thing. But hardware is not flexible. Hardware that could magically morph itself under software control—giving you 32 sliders for one project, eight joysticks for another and 64 buttons and LEDs for a third—would be a dream come true.

The JazzMutant Lemur brings the dream a step closer to reality. Lemur's touchscreen interface can be reconfigured in software, can track the positions of many fingertips at once and can transmit either MIDI or high-resolution OSC (Open Sound Control) messages. Several of Lemur's features will interest studio owners: its small footprint, one-button recall of complex templates and the ability to receive and send messages for display purposes.

### LEMUR: DEFINED

The Lemur itself looks like an Etch-a-Sketch on steroids, with its 7.25x9.625-inch multicolor touchscreen. All programming is handled in the JazzEditor software, which runs on Mac, Windows or Linux. Communication between computer and Lemur is via Ethernet. A crossover cable is included, which is helpful, because the manual states (incorrectly) that you shouldn't use a crossover cable. The Lemur is distributed in the U.S. by Cycling '74, and comes with a few software extras for those who want to pair it with Cycling's Max/MSP/Jitter. Max is not required, but a computer of some sort is; Lemur has no MIDI output and no static memory, so it can't run in stand-alone mode.

### NETWORK SETUP

I installed the JazzEditor on my HP laptop and plugged in Lemur, but I couldn't figure out how to get a MIDI output to my other music software. The documentation I received only covered the features in Version 1.2, so the MIDI features introduced in V. 1.3 were undocumented. A call to a Cycling '74 specialist didn't yield a solution over the phone, but the next day, the MIDI communications worked for no reason that I could determine.

Likewise, sending OSC messages from Lemur to Max didn't work at first, but when

the specialist sent me a new version of Max's third-party "udpreceive" object, the problem disappeared.

I successfully used Lemur with an HP laptop, which meant a direct Ethernet connection between the two devices and with my Windows tower that I connected to Lemur using the same LinkSys router I use to connect to the Internet.

The manual explains the process of setting the correct IP addresses, but if you're not a networking wizard, a little extra hand-holding from tech support may be needed.

### GETTING IN TOUCH

Lemur's screen can contain nine types of objects in any combination and any screen arrangement: faders, LEDs, data monitors, multiballs, multislidars, pads, RingAreas, SignalScopes and switches. The unit can hold a large number of screens (called Interfaces) at the same time. Only one at a time is active, but you can quickly switch among them.

Each object produces a data output (or, in the case of objects that can be moved in two dimensions, both x and y outputs) when it is touched or moved with a fingertip. You can process the data within Lemur prior to output with a variety of standard computer programming techniques. The data sent by one object (or received via OSC) can be used to alter the behavior of another object.

Sliders and balls can be given values for attraction and friction. With a low friction value, the object will continue to move after you let go of it. A low attraction value causes it to move toward the position of your finger slowly rather than rapidly. When the Physics parameter is set to Mass-Spring, the balls will bounce off the edges of their area almost like the balls on a billiard table (though Lemur's balls pass through one another rather than colliding). This type of response makes Lemur seem very responsive, almost alive. However, this feature may be more in the gee-whiz category than of any practical musical use.



### MIDI MATTERS

OSC is far more powerful than MIDI and is supported by a number of experimental music programs and by very few commercial music applications. Native Instruments' Reaktor and Traktor DJ Studio have OSC support, but Traktor is not compatible with Lemur. Cycling '74 is developing a future distribution of Max that will support OSC directly rather than require a third-party software object. Reaktor's OSC documentation is poor, and when I posted a message on the Reaktor user forum asking whether anyone was using OSC, I got no replies. So it's safe to say many Lemur users may opt for MIDI output. In my Windows systems, MIDI-Yoke NT allowed me to route MIDI from Lemur to any of my software instruments or recording software.

To output MIDI, create a separate MIDI object in the JazzEditor, choose a MIDI message to output and assign the value of a Lemur variable (which could either come directly from a screen object or be the result of a data-messaging equation) to the MIDI data value(s). For instance, when the MIDI data type is Control Change, you can use separate Lemur variables to set both the controller number and the data value.

This setup is workable, but has some limitations. The MIDI transmit channel is a constant for each MIDI object, not a variable, which means it's not possible to switch a bank of sliders from one channel to another on the fly. The note-on is a separate data type from the note-off, so if you want to use Lemur for playing (as opposed to controlling) music, you'll need to work out how to switch off the notes you've switched on. This proved to be a problem in the step sequencer interface that I downloaded from the JazzMutant Website

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(www.jazzmutant.com). Though this file was intended to show off Lemur's capabilities, it consistently produced stuck notes. Even without this malfunction, it wasn't much of a step sequencer. I couldn't precisely set the pitches of the notes because my fingertip was too fat to move the pitch sliders by half-steps. Moving the tempo slider produced a flurry of fast notes. The step sequencer had no documentation, which meant I had to puzzle out what the various controls did. And this was not easy, because the JazzEditor defines the screen object in one place and the MIDI outputs elsewhere. To figure out what a given screen object does, you have to pore through the MIDI object list until you find the screen object's output that is being used.

I also tried out the Ableton Live template that ships with Lemur. This contains both a Lemur interface and a Live file with preconfigured MIDI assignments. The template worked (though on one occasion, loading it caused communication between Lemur and the computer to be lost), but because Live has its own QWERTY interface for triggering clips and scenes, it's difficult to see that Lemur's glowing banks of buttons offer any advantage to Live users.

#### AND ALL THAT JAZZ

The JazzEditor software is functional, but some enhancements would be welcome. Screen objects can be copied and pasted, but MIDI output objects can't. If you want to create MIDI outputs for 16 sliders, for instance, then you have to create one output object at a time, choose its output data type and assign it manually to a slider or other screen object. Even something as simple as saving the document you're working on is needlessly complicated: In Windows, it takes three keystrokes (Ctrl-S, Return, Alt-Y), when it should take only one (Ctrl-S).

#### THE FUTURE'S SO BRIGHT

Ten years from now, well-equipped studios will have a touchscreen interface like Lemur, so this product has to be counted as a significant development. However, the JazzEditor software is in a somewhat immature state: It's poorly documented and lacks the features that pros expect in a product retailing for \$2,495. Unless you're a dedicated experimental musician, a standard MIDI-based hardware controller would be more economical, and easier to set up and use.

JazzMutant, dist. in the U.S. by Cycling '74, 415-974-1818, www.cycling74.com. ■

*Jim Aikin is a frequent contributor to Mix, Electronic Musician and other music technology magazines.*

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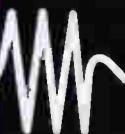
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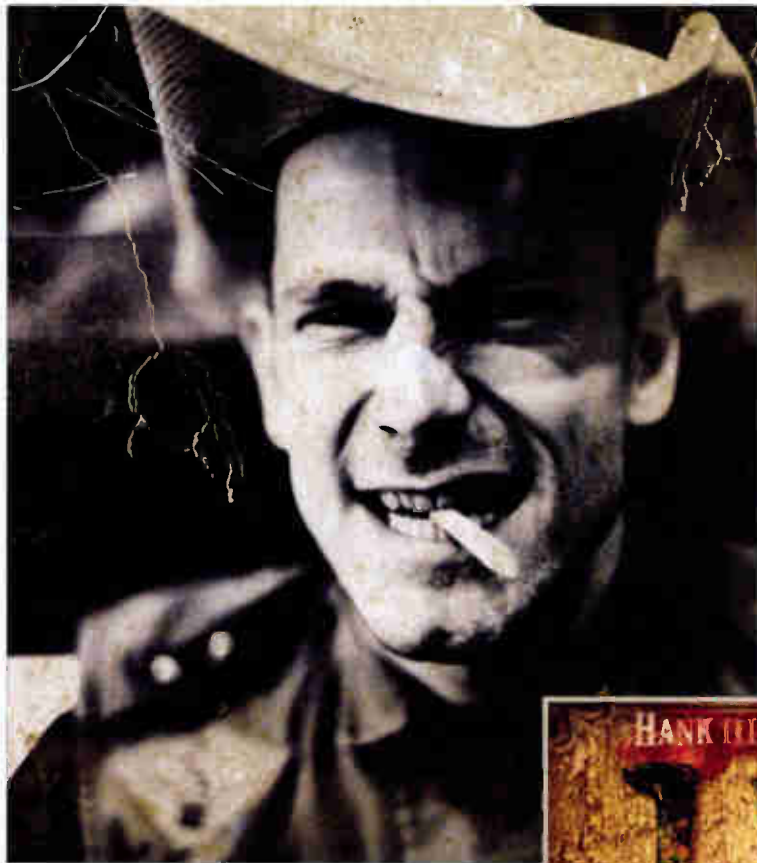
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## HANK WILLIAMS III

NASHVILLE REBEL KEEPS IT REAL

By David John Farinella

Shelton Hank Williams III has been bucking the Nashville way of doing business since he signed his first record deal with Curb in the late '90s. Like his famous father and grandfather, Hank III has blazed his own trail; his music shifts between recordings of pure honky-tonk, pure metal and something in between that he calls "hellbilly."

Hank III's latest double-CD release, *Straight to Hell* (BRUC Records), keeps to the dark side of country music. Disc one, as he explains it, "is us trying to do it right, using the players and getting the tones. Disc two is more an ambient disc. It's a 42-minute track that goes back to me and this old Panasonic tape recorder my grandmother gave me that I still use to this day and a bunch of sound effects."

Whereas the vast majority of today's country music artists demand pristine and polished audio tracks, Hank III aims for vibe and personality. Rather than head to one of Music Row's best-known studios, he and musical compatriots Joe Buck and Andy Gibson took up residence in an east Nashville home with a Korg D1600 digital recording workstation and got to work.

"It's just three guys that don't have any degree in recording or understand how it works doing their best," Hank III reports. "We were all just doing what we thought halfway sounded good." The trio showed



up at the house every day for a month, working into the wee hours; as one person was playing the other would run the D1600.

Hank III raves about the now-discontinued Korg product that he uses to write and record: "When I was on the road [playing bass] with Superjoint Ritual, it would be like wake up, go into whatever room we've got, plug it in and start ripping out," he says. "I'm a true believer that every independent band or do-it-yourselfer should have a machine like this." The mobile workstation boasts an uncompressed 24-bit, 44.1kHz range with 24 channels and an 8-bus, 16-fader mixing surface.

The room where the vocals, guitars and bass were recorded for disc one was a relatively large one, with 15-foot ceilings. While there was no official baffling, Hank III reports that they recorded the vocals and acoustic guitars tucked in a corner. In keeping with the minimalist approach, few microphones were used during those tracking dates and just three kinds: Shure SM7, SM57 and KSM32. Hank III sang into the SM7, used the 57 on his acoustic guitar and kept a KSM32 going at all times to capture room vocal and

—CONTINUED ON PAGE 124

# THE DITTY BOPS

QUIRKY ACOUSTIC DUO  
REACHES FOR SOPHOMORE SUCCESS

By Heather Johnson

The dreaded sophomore slump. So many bands go through it; not all of them survive. Los Angeles-based group the Ditty Bops—an acoustic combo led by Amanda Barrett (mandolin/dulcimer) and Abby DeWald (guitar), who lend their sweet vocal harmonies to a modern, cheerful blend of folk, ragtime, Western swing and vaudeville—put out a finely crafted self-titled debut for Warner Bros., earning them glowing reviews and a slick fashion spread in *Interview* magazine.

But when it came time to focus on the “difficult second album,” *Moon Over the Freeway*, which was released last month, the group had just hit their stride. “They’ve really taken a step forward with this record,” says Mitchell Froom, who produced both albums. “Their vocals are really good on the first record, but now you hear the increased force with which they sing. Just the power of what they do is great.”

The Ditty Bops’ busy 2005 tour schedule helped build that power. When they recorded their first album, the group had only played live a handful of times (includ-



PHOTO: RICHARD GARR

The Ditty Bops are Abby DeWald (guitar), forefront, and Amanda Barrett (mandolin/dulcimer).

skills also improved; they wrote prolifically on the road and tested their new material with their audience.

Froom—whose best-known production credits include projects for Elvis Costello, Ron Sexsmith, Crowded House, Los Lobos and Suzanne Vega—wanted to capture the new Ditty Bops songs at their peak of freshness. During random breaks from gigging, the group recorded at Froom’s studio (christened Coconut Guys by Barrett and DeWald), a mid-sized operation

what will happen with the label? If they get dropped, we’ll have a really cool record for an indie.”

David Boucher, Froom’s engineering partner for the past four years, originally thought those sessions would wind up as demos; if they were lucky, maybe a master or two would come forth. “But the band came in and everybody was so on top of things, we ended up with four masters on the first day!”

Subsequent sessions, spread over a year and a half, yielded similar results. Another tracking date produced two album cuts. On a third session, they got one more. Other times, they went back and re-cut tracks with new arrangements, but for the most part, Froom and Boucher left things as is. “The band was well-rehearsed from gigging a lot, but they hadn’t been playing long enough to be ‘over it’ in any way,” says Boucher. “So capturing the band at that point was the best decision that could have been made.”

The core combo comprises Barrett and DeWald with touring companions John Lambdin (fiddle, acoustic guitar, lap steel), Ian Walker (upright bass) and Greg Rutledge (piano). Musicians Val McCallum (guitar), Davey Faragher (electric bass) and Pete Thomas (drums), all of whom played on the Ditty Bops’ debut, also made appearances. After a short pre-production period to fine-tune arrangements, the group took their place in the main studio to track, with drums settled in one iso booth and one of the stringed instruments, usually fiddle, in a second iso booth. Upright bass, guitars,

—CONTINUED ON PAGE 128



PHOTOS: AMANDA BARRETT AND ABBY DEWALD

Barrett (left) sings into Froom’s Telefunken 251. DeWald’s guitar got a condenser mic and a Distressor.

ing one show at Molly Malone’s in Hollywood, attended by Warner Bros. A&R rep Craig Aaronson). But after their debut’s release, they assembled a solid touring band and worked themselves into one very well-rehearsed unit with a great theatrical sense. Barrett and DeWald’s songwriting

equipped with a 44-input Amek Media 51 console and Pro Tools | HD Accel rig (with an Apogee Trak2 clock/preamp/converter), among other items. At the time, no one even knew if there would be a second album. “My thinking was, ‘I love this band, it’ll be fun to record them,’” says Froom. “Who knows



# STEVE MILLER'S "SWINGTOWN"

By Blair Jackson

By the time Steve Miller's career exploded into mega-stardom in 1976 with his (still amazing) *Fly Like an Eagle* album, he'd been making records for 10 years and was already a semi-legendary figure, having recorded such FM radio staples as "Living in the USA" and "Space Cowboy" in the late '60s.

Miller was raised in Dallas, where his pathologist father—a serious music fan—managed to introduce his son to music legends like T-Bone Walker, Charles Mingus and even Les Paul, who offered a few guitar tips to young Miller and let him watch him work in the studio. During Miller's teenage years, he was in a group that included Boz Scaggs; indeed, Scaggs would briefly be part of Miller's group years later in San Francisco. In the interim, however, Miller went to college in the Midwest and in Denmark, then settled in Chicago, where he befriended the cats in the Butterfield Blues Band and others. In 1966, Miller moved to San Francisco and formed the Steve Miller Blues Band and started recording a string of fine albums, beginning with *Children of the Future*, cut in England with Glyn Johns. (He wisely dropped "Blues" from the name after that album; he always played much more than blues.) Though definitely part of the San Francisco scene of the late 1960s, Miller also always stood apart from the other bands—he derided the sloppiness of the first-generation psychedelic bands, and from the outset was more interested in album-craft than most of his S.F. peers.

In 1972, Miller was badly injured in an auto accident and then was felled by hepatitis, which effectively put him out of commission for almost a year. When he returned with *The Joker* in 1973, the title track landed him the first bona fide hit of his career—it made it all the way to Number One. It would take him another three years to put out an album, however, and that's where we pick up the saga.

During his career resurgence after "The Joker," Miller retreated to his Novato (Marin County) 8-track home studio and went to work, furiously writing new material and making demos. He cut a few basic tracks at CBS Studios in San Francisco, with CBS studio tech Mike Fusaro at the board, and he booked himself and his band into the historic Capitol Studios in Hollywood, where he'd recorded *The Joker*. That's when engineer Jim Gaines, a Memphis studio veteran who had relocated to the Bay Area, got a phone call from Miller.

"I was actually working at Kaye Smith Studios in Seattle and he said, 'Hey, would you consider working on my record?'" Gaines recalls recently from his Nashville-area home; he had just returned from a tour of Brazil with Santana. "We had never met before, but we'd talked. I'd helped coordinate



PHOTO: © RICHARD MCCAFFREY/MICHAEL OGBURN ARCHIVE.COM

some Tim Davis sessions—he was a drummer from Madison, [Wis.], where Steve went to school, and was part of the original [Steve Miller] band. Anyway, I was in the middle of a Spinners record, and I said, 'Well, we ain't gonna be done for two weeks.' He didn't like that answer. He complained to me that someone at Capitol had run a tour through the studio he was using in the middle of his session, so he said, 'That's it, I'm outta here!' Plus, he didn't want to deal with the union people down there. He didn't think they really understood what he was trying to do. Two weeks later, he arrived in a van full of tapes, and we worked on a few things together."

When I spoke with Gaines in the spring of 1987, he went into more detail: "We got into this incredible flow where we were mixing and re-overdubbing at the same time, working on the studio's API console in one of Kaye Smith's [Tom] Hidley-designed control rooms. We ended up working 17 days, 14 to 20 hours a day. We actually had two rooms going. I had my assistant doing some things in the other room while Steve and I worked on effects—things like the rising synth on 'Fly Like an Eagle,' which was a little Roland synthesizer that he didn't know a damn thing about, but we played with it and this great stuff came out.

"What happened with me is he found someone who was really interested in his music. I'd say, 'Let's try this!' and we'd just experiment. 'How about this effect here?' He was into that. He was totally open to it, and he just let me go. I was into delays and outing stuff on his voice, and echoes, and he just loved all of it. So though he was very demanding on a certain level—he's a real perfectionist—he's also into trying new things and looking for the perfect thing, which made it exciting for both of us."

Gaines says that he and Miller both shared a love of Pink Floyd, "and that was definitely some of the inspiration for what we were doing with synthesizers and the transitions between songs, the crossfades and all that. We stole from the best," he says with a laugh.


*Fly Like an Eagle* went through the roof, of course, with "Rock 'N Me" hitting Number One, and both the title cut and

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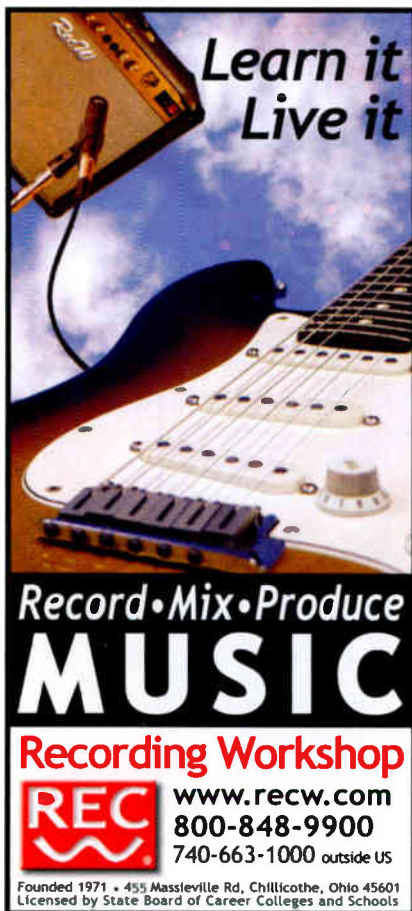
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"Take the Money and Run" also rising to the upper reaches of the charts. The sessions for that album had been so fruitful that much of the material for the follow-up, *Book of Dreams* in 1977, also had its genesis during the CBS and Kaye Smith sessions, including this month's "Classic Tracks," "Swingtown." "What happened is Steve put me on retainer," Gaines says today. "I could still work with other people, but I was basically on-call to work with him."

The recording methodology for the two albums was nearly identical. Basic tracks were always cut with three or four musicians playing live. Most of the basics on *Book of Dreams* were Gary Mallaber on drums, Lonnie Turner (a member of Miller's band on and off since the mid-'60s) on bass, Dave Denny on guitar and Byron Allred on keys. (A couple of other rhythm sections appear on the album, including members of James Cotton's band.) There isn't really that much to "Swingtown," which was co-written by Miller and Chris McCarty. The long rhythmic intro vamp has the various instruments entering one at a time and then Miller's "whoa-oh-oh" vocal comes in—Miller harmonizing with himself, as he usually did—then a quick verse, further variations on the vamp and verse, and then a long fade with different analog synths taking center spotlight until the fade. It's incredibly catchy, a brilliant bit of pop fluff.

Talking about Miller's trademark vocal technique, Gaines says, "That's really so much of his sound, isn't it? His vocals aren't ever loud and boisterous; they're usually very soft vocals against some cool tracks. Part of the story with cutting some of that stuff in Seattle originally is that the API boards had a cutting section and a monitor section. So one day Steve asked me, 'Man, would it be all right if I came in the control room and did vocals?' I said, 'Sure.' So we set him up in there with an RE-15 mic—which is like an old \$100 Electro-Voice mic—and a Shure Level Lock compressor, which cost like \$50; it had four mic inputs and one output. You'd put it on there and it would really hold—you'd hear a lot of lip-smackin'. Once that compressor locks on, it doesn't let go. I'd also set up some aux ins, so you'd have delay and two or three reverbs. He had a pair of headphones on, and he started singing that way in the control room. The chief engineer comes in and says, 'You can't do vocals this way!' I said, 'Why not?' He says, 'What if the phone rings?' So I literally walked over and yanked the phone out. Then he says, 'What about the tape machine noise?' So I threw a blanket over the tape machine. So Miller and I started working that way; and not only his

vocals, but a lot of his guitars were done sitting in the control room. What was cool is he could mess around with the effects as he was singing, so if he wanted delay on his voice, he just pushed up aux one and there it is. So he got into the mood of singing with the effects working for him. Most of the vocals were done that way."

Miller did some more work at his home studio and then the album was finished and mixed at the Record Plant in Sausalito, Calif., which also has an API board and 3M recorders. Miller always was involved in every aspect of his records, mixing included. The famous synthesizer lines at the close of the song were added as overdubs late in the process, mostly using an ARP Odyssey, "which we thought was just the greatest-sounding thing at the time," Gaines says. "Unfortunately, the damn thing wouldn't stay in tune." Gaines believes that some other inexpensive synths also might've gotten a workout. "We were always trying out these cheap \$100 synths, go through all the presets—wind and oboe—and then we'd put them through Echoplex and delays." As for what sounds like a harpsichord under part of the verse: "I can't remember," Gaines says with a laugh. "It might be a synthesizer, but we did have a harpsichord up in Seattle, so maybe that's what it is. That was a long time ago!"

Nearly 30 years, to be exact. "Swingtown" wasn't the biggest hit from *Book of Dreams*—it made it to Number 17, while "Jet Airliner" hit Number 8. ("Jungle Love" made it to 23.) But it's shown an amazing staying power and crossing generations. Miller's heyday may have passed (he did score another Number One with "Abracadabra" in 1982), but he remains one of the most popular figures on the classic rock scene, with "hits" albums that have sold many millions, and he has toured *very* successfully every couple of summers with his crack band. His opener on the last tour? "Swingtown." Nice choice! ■

## HANK WILLIAMS III

FROM PAGE 120

guitar tracks that were later blended in.

Getting tones from the stand-up bass was a bit of an issue, Hank III says, because there was no controlling the room ambience. That was solved, in part, with Hank III twisting a knob on the D1600, checking the sound as it played on his home stereo system, which includes a Paradigm subwoofer, and then returning to finish the track. "We were trying to keep some of the click of the stand-up bass and trying for it to not sound too scary on the



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woofy end," he says. A 57 was placed just above the bridge of the bass, one just below, and then one KSM32 slightly off to one side and another down a hall about 15 feet.

Any other type of instrument—dobro, fiddle, pedal steel—was miked with a 57 and run straight into the D1600. Indeed, other than the mic pre's that are present in the D1600, no other outboard gear was used on the project.

Hank III opted to go into a proper studio to record drums, however, and he turned to James Lightman, who works out of The Track House (his studio) and Platinum Lab in Nashville. "It wasn't a fancy setup," Lightman reports. "It was basically 421s on the toms, a D 112 on the kick, and we used a Yamaha Sub-Kick, which has a lot to do with the low-end punch on the record." He also used KSM44s as overheads and had a pair of Groove Tubes mics placed 10 feet or so in front of the kit to get room tones.

Balancing that deep low end against the stand-up bass offered some challenges for Lightman. "The stand-up is a little harder to tame than an electric, and you want to get the definition," Lightman explains. "Part of his sound and part of the whole vibe of the record is the actual slapping on the bass, which is very percussive itself. There are a lot of songs where there are no drums, the bass is playing a walking bass line with the slapping in between and it sounds very percussive. So the interesting part was matching the drums and the bass and getting those to work as a unit."

Lightman became an integral part of the production team on *Straight to Hell*. "After we recorded everything, I wanted—I hate to say this—a sober ear to listen to it," Hank III says with a bit of a laugh. "The three of us were doing the best that we could and I wanted to get someone else's input and help do a couple little things."

To get the tracks ready for the drums to be added and for mixing, which he handled mostly at The Track House, Lightman dumped everything into Pro Tools and did stem mixes on an SSL 6048 and then put it back into Pro Tools for some further tweaks.

The album is light on effects. "All of the reverb that you hear on the vocals is natural," Lightman reports. "There is not a drop of digital reverb. There are delays that are very obviously delays, but all that room ambience is the KSM32 that was across the room. That was very carefully blended in. There were three or four tracks on every vocal take, which had to be treated as one take. We locked the tracks together, and all the edits were done together."



Hank III calls his sound "hellbilly."

One of the vocal tracks that Lightman and Hank III turned to was a distorted vocal that was recorded into the D1600 dry and then dumped to Pro Tools. "Then I would run a stereo signal out of Pro Tools back into his Korg and he would set up a distortion patch on his Korg," Lightman says. "We recorded the distortion part of it back into Pro Tools and mixed the distortion stereo track in with the dry vocals. That way, we were able to get a good blend of distorted and clean vocals."

Another challenge was cleaning up the bass tracks. "The acoustic bass is not a real high-quality instrument," the mixer says with a laugh. "It had more duct tape than wood on it, and the A string was about 11 dB softer than the D string, and the G string was so low in level that I don't think it got used in the whole record. We had to do a lot of editing to a lot of those tracks to get the volume consistent. The playing was great, but the instrument had a big difference in terms of the strings. That was one thing that we had to really work out."

The second disc includes the song "Louisiana Stripes" and a 42-minute track that Hank III and Lightman created in Pro Tools by editing together songs that Hank III had recorded in the past with an odd assortment of phone messages, an eclectic range of sound effects and room ambiences. "It's stripped down and bare—me and my guitar and my tape recorder," Hank III says. "There is a certain edge that I like about those recordings."

What made Lightman's job easier while working on both discs was the fact that Hank III had a clear plan from the beginning. "He's got an incredible vision," Lightman says. "I think he knew what he wanted before we started recording anything, and as the project progressed, I saw where he was going. It felt like it all fell together pretty easily." ■

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## THE DITTY BOPS

FROM PAGE 121

piano and the Bops stayed together in the main room with little baffling between them. "The spill between the instruments going into the microphones just makes the whole thing sound more realistic," says Boucher.

Boucher chose small-diaphragm condenser mics and Empirical Labs Distressors for the acoustic guitars. Acoustic bass got miked with a 1950s-era Neumann U47 and a Royer ribbon mic run through Chandler EMI mic pre's and an EMI limiter.

Barrett sang into Froom's Telefunken 251, which Boucher says, "sounds better than any other 251 I've used." DeWald used Boucher's custom Royer. "It's got a similar presence to the 251," Boucher says. "It doesn't have an intense amount of low end, which makes it really good for vocals." He continues the chain with API mic pre's and the Distressors.

The way the Ditty Bops usually work is they sing a scratch vocal with the band, "and then right after the take, we'll set up the mics and do a few passes of them singing together," says Froom. "That seemed to be a pretty happy way to go. Some people sing better when they play and play better when they sing. With them, it doesn't seem to make a difference one way or the other. We never felt like we were losing anything. But literally five minutes after you get the take, they're singing. They're still right in it."

Like the spot-on band, Barrett and DeWald recorded their vocal parts in minimal takes—and no Auto-Tuning necessary.

"We'd get five takes out of the two of them in 20 minutes of recording," says Boucher.

Froom will occasionally use a plug-in or some piece of outboard gear "if it sounds good," but, generally, he focuses more on the sound going into the equipment than on the gear itself. Admittedly, he and Boucher will spend more time picking out an acoustic guitar than a microphone, and while Froom has an ample supply of equipment in his sunny studio, the instrument collection is, as Boucher describes, "without a doubt the finest asset." The assortment includes a large collection of guitars, basses, drums and guitar amps, including an early '60s Gibson J45 "that sounds fantastic [and] all the little gadgets that go along with Mitchell's productions," says Boucher, "like a beautiful set of concert bells, wacky things that he found in Paris."

Oh, and keyboards. Lots and lots of keyboards. For example, on the intro to "Aluminum Can," Froom rolled in a 19th-century "finger organ," a foot-pumped set of flutes played with a keyboard. "It made these really cool, amazing designs that I liked the sound of, but I didn't hear it as an intro to the song," says Barrett. "But once he recorded it, I had no doubt that it would work."

Froom says that the Ditty Bops are "everything you would want to see as a producer. The group just gets stronger and stronger and, over time, your involvement becomes a little more subtle." Their new material didn't require much restructuring, and though he did bring out some of his favorite odd and vintage keyboards, he added only small parts for color or to dou-

ble an existing melody line, as opposed to guiding an entire track.

They also mixed the album at Froom's studio, again, with Boucher at the board. Boucher's passion for the project and strong familiarity with the music ensured continuity and helped bring the vision more clearly into focus. "David thinks about the mixing while we're recording, and usually for good reason," Froom says. "He takes the concept to its fullest extent."

Recording and mixing in the same studio also made for a more streamlined audio experience. Froom's VCA-automated Amek had enough channels to break out the tracks, and the Pro Tools|HD Accel rig served as an efficient substitute for 24-track and 2-track analog recorders. "Mitchell likes to work as if the 2-inch were still rolling behind us, so all the arrangements lay out on the desk pretty easily," says Boucher. "There's never a compromise, but no headaches from the pitfalls of recording to a DAW." They also sequenced the album, which helped make mastering engineer Bob Ludwig's job easier. He finished the album at his Gateway Mastering in Portland, Maine.

It's hard to predict how any album will sell, especially one from a group as innovative as the Ditty Bops. But if talent and sheer determination have anything to do with it, the Ditty Bops could certainly become sophomore stars. "They have too much enthusiasm for their music to go downhill," Froom says. "It would feel really great to see them do well. It raises the bar for the concept that something different, if it's really good, is a good idea." ■

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**MIX**



## L.A. GRAPEVINE

by Bud Scoppa

It's daunting to take over this column and attempt to fill the shoes of its longtime proprietor, Maureen Droney, who has now taken her vast knowledge and myriad relationships to the Producers & Engineers Wing of the Recording Academy. Although it goes without saying that I have a great deal to live up to, I come prepared—on paper, at least—having spent more than a few hours in this city's high-end recording facilities, A&R'd my share of records and made it

In 1972, I took my first job for a record label, doing publicity for Mercury in New York. That experience was highlighted by the signing—by my friend and mentor Paul Nelson—of the New York Dolls. During that project, I learned the difference between an artist's ability to enchant onstage and the nuts-and-bolts, focus and discipline that go into making a record. What intrigued me at the time was that although producer Todd Rundgren related

to some of the bandmembers with what I took to be thinly veiled contempt, he helped them make a seminal album.

The combination of my brief label experience and my regular byline in *Rolling Stone*, *Crawdaddy*, *Creem*, *Rock* and *Fusion* (where I wrote about Big Star, Little Feat, Neil Young and Nick Lowe's Brinsley Schwarz) got the attention of A&M Records, and I consider myself immensely fortunate that I began my life in L.A. on the storied lot at 1416 N. La Brea.

Between the record company, A&M Studios and the Chaplin Soundstage, all cozily arranged

on the lot, the place was a three-ring circus of rock 'n' roll fantasies come to life.

I'll never forget looking in the dark of the control room as Emmylou Harris sang a duet with her now-departed partner Gram Parsons on the classic ballad "Sleepless Nights" for the collection of the same name, which Harris and I jointly, and lovingly, put together. Nor will anything erase the memory of The Tubes leader Bill Spooner racing up to my office window in the publicity bungalow to tell me about the magic being made right then by Jack Nitzsche, who was conducting an overdub session for the band's *Young & Rich* album. Then there was the week The Band and a horn section took over the big soundstage to rehearse for a tour; we'd sit in the bleachers captivated by the sounds these pros were making in rehearsal, and

—CONTINUED ON PAGE 134

## NASHVILLE SKYLINE

by Rick Clark

Last month, I paid an overdue visit to MTSU and the Murfreesboro scene. Originally, I went down for what I thought was going to be a rather quick day trip in the "Boro" (local shorthand for the town), but I ended up with way more information and insights on this creative community.

According to guitarist Jeremiah Scott of Destroy Destroy Destroy—one of the local bands—"We are very proud to be a part of the scene fueled by the draw of the MTSU recording program. Without it, many of us would never have met or come here in the first place. The 'Boro' is 100-percent loyal and supportive. Even the venues help a great bit, as well as the MTSU radio station. This is not just a fun thing to do after school; this is what we love more than anything."

MTSU alum John Baldwin (who runs Lake Fever Productions and is a mastering engineer at Georgetown Masters in Nashville) adds, "Murfreesboro has such great music because it's a place where people of the same age with the same interests are all in the same place with the same goal. At MTSU, I remember tracking bass guitar in the dorms from the third floor via tielines running out the window and down the side of the building to a 'studio' on the first floor. There are so many people there eager and ready to learn, and willing to try anything. It's a community that fosters cooperation and creativity. Although I live and work in Nashville, I still work with many Murfreesboro bands like How I Became the Bomb, Feable Weiner, Ghostfinger, the Juan Prophet Organization and the Velcro Stars."

In addition to MTSU's facilities, Murfreesboro is also home to a handful of dedicated recording studios that serve local bands and singer/songwriters. Among the more visible facilities are Brian Carter's Paradox Productions, Alex Norfleet's Grand Palace and Jason Dietz's Twin Oaks Productions.

Paradox Productions has been a favorite destination for such local bands as Glossary, Jetpack, The Katies, the Good Gospel Truth, Scott Carney, Michael Acree, Sour Puss, Prismatic, Spread Eagle



Who says the days of studio lockouts are over? Jack Joseph Puig has occupied Ocean Way's Studio A for 10 years.

through three decades in and around the music biz without losing my enthusiasm for a good tune and a well-designed track. Additionally, to quote Randy Newman, I love L.A. and feel like a native, despite my origins on the other coast.

My love affair with So Cal began years before I first touched down at LAX. The Beach Boys got my attention, but it was The Byrds who seduced me since I first heard "Mr. Tambourine Man" while driving to school in New Jersey in 1965. Five years later, The Byrds prompted my first trip to L.A. to research the book I was writing on the band while a cub writer/editor at Scholastic, which published my paperback *The Byrds* a year later. That 1970 trip also occasioned my first visit to a recording studio—the old CBS facility at Sunset and El Centro, where The Byrds were doing overdubs on their (*Untitled*) LP.

## NEW YORK METRO

by David Weiss

and The Features. "Paradox Productions is dedicated to recording bands the way they practice: in a room playing together, without isolation booths and at full blast," says Carter. "Hardwood floors sound good, so we have those. We use both old and new vacuum tube mic preamps going straight into a 16-track, 2-inch Ampex MM1000 tape machine. We also use a 32-track E-mu PARIS system as our digital arm, but, in general, things start and end on the 16-track with not much digital transfer. I'm glad to have digital because it's obviously great for lots of things, but I much prefer analog recording, and I think the studio has become known for its straight-ahead recording approach, great-sounding individual headphone mixes and its growing collection of gear.

"It always bothered me that newer recordings didn't have that depth and sense of being enveloped by the music when compared to older recordings," Carter continues. "I remember going up to my friend's house when I was five and listening to old Elvis records on his mom's vacuum tube RCA record player that only played 45s. I thought the records were the greatest things I'd ever heard, even though it was a crappy little record player.

"I liked that older sound, but I later

—CONTINUED ON PAGE 135

Everybody knows what Frankie said about making it in New York City; is it possible he was crooning to the audio engineer who captured those legendary lines? While New York City is a powerful magnet for all types of talent, constantly escalating rents and other cost-of-living expenses are the chief reasons why the city is a tough place to get a foothold. Making it work in audio is almost as tough as acting, but a look at a couple of sharp practitioners proves there are at least two solid approaches to surviving in the big bad city.

Outloud Audio ([www.outloudaudio.com](http://www.outloudaudio.com)) represents the newest of the new breeds of highly functioning facilities. The brainchild of Mark Kondracki, Outloud was founded in early 2005 and is already booked pretty much solid until 2007, thanks to strategic planning and a serious understanding of best business practices.

"There are four main items that I focus on: quality, service, business expertise and diversity of services," says Kondracki from his Pro Tools | HD3-equipped Studio A. Outloud is located, ironically enough, on 54th Street, directly across from the former Hit Factory. "The way I look at it is that I'm in the audio business. I deliver audio products and I look at all the companies—corporate, pharmaceutical, entertainment—that require that type of product; it's not all CD music."

Although only 33 years old, Kondracki has a deep resumé that makes him ideally suited to deliver a wide range of services—including composition, voice-over production, mixing, mastering, online sound and audio restoration—to an even

PHOTO: DAVID WEISS



Mark Kondracki's Outloud Audio is booked pretty much until '07.

wider range of clients, such as the Style Network, The Learning Channel and the popular online Flash movie *The Matrix 2: Revolving*. A classically trained pianist who also toured the country as a rock guitarist, Kondracki spent eight years away from the professional music world to run JumpNYC, a successful Web and custom application development company. When the itch to return to music was quickly rewarded with a number of major corporate contracts, Kondracki realized that he had picked up important skills in the business world.

"In some cases, I was competing against 20 other houses," he says, "but the documents I was able to write and the way I was able to break down how a massive audio project could be realized in terms of time and money were a very big factor in enlisting their trust and confidence. Written proposals are key, and the ability to be transparent with your costs and services is extremely valuable. I think when you're discussing anything like technology and audio that is not necessarily immediately familiar to somebody, putting it into a language they can understand is critical."

Kondracki's attention to detail mirrors the criteria for his space, where the right location and lease were both top priorities. "I wanted to be involved with people whose business was complementary," he explains.

—CONTINUED ON PAGE 136

PHOTO: RICK CLARK



Paradox Productions' Brian Carter (in glasses) with The Features (L-R): Roger Dabbs, Rallum Haas, Parrish Yaw and Matt Pelham



## RHAPSODY STREET'S "MASTERPIECE" SAN ANTONIO STUDIO REDESIGNS FOR MASTERING

Rhapsody Street Studios ([www.rhapsodystreet.com](http://www.rhapsodystreet.com)), a San Antonio-based tracking and mixing facility, recently converted its Studio B overdub room into a mastering suite, spurred on by Rupert Neve's designs.

Producer/engineer Mack Damon—who worked at the studio for 11 years before purchasing the studio in 2002—and his business partner of the past 18 months, producer/engineer Ken Branca, frequently drove to nearby Wimberly, Texas, to master Rhapsody Street projects with Legendary Audio founder Billy Stull. There, he heard a prototype of the company's Masterpiece 2-Bus analog processing system designed by Neve. Hearing the unit gave them the kick-start needed to open their own mastering facility. Construction included building tuned compression walls and ceilings in the 225-square-foot control room, installing new fixtures and reworking the studio area for mastering. "We changed the room dimensions," says Damon. "We reduced the long end by a foot-and-a-half. The back wall is now a massive bass trap."

They installed a JBL LSR28P three-way stereo monitoring system with JBL LSR 12P subwoofers. Both Damon and Branca work on a Digidesign Pro Tools|HD3 workstation with 192kHz interface, which runs into a Central Station monitoring interface and Command|8 control surface. They augment their digital equipment with Class-A outboard processing from Focusrite and SSL, as well as a Bedini Acoustic Space Environment Processor (BASE).

The new addition to Rhapsody Street allows clients to both mix and master in-house. "We're mastering right off the Pro Tools mix bus," says Damon. "If we're mixing in Studio A, we can run rough mixes through the mastering and be able to make changes ahead of the mastering process."



Rhapsody Street co-owner Mack Damon in the new B room. Inset: Studio A.

Studio A offers a second Pro Tools|HD3 unit, paired with a Digidesign Control|24 mixing surface and a collection of outboard gear from Neve, Avalon, Focusrite, Chandler and API.

The roomy Studio A also gets its fair share of tracking sessions, primarily regional indie rock and alternative acts, as well as hip hop and R&B migrating from nearby Houston. But they've hosted acts of all genres, Damon adds, and their city's low cost of living allows them to charge "ridiculously low" rates in the process. If that doesn't send clients into a state of rhapsody, maybe the new Studio B will.

### BEHIND THE GLASS

## HELLO? RITCHIE AT SILENT SOUND



Standing, from left: Sean Garrett, Lionel Richie manager Michael Simmons, Exit and Lionel Ritchie. Seated: synth programmer Chucky Booker.

Soul icon Lionel Ritchie camped out at Silent Sound in Atlanta to work on his forthcoming album with mega-hit songwriter/producer Sean Garrett (Jamie Foxx, Usher, Kanye West). Ritchie recorded vocals in the studio's SSL-equipped Control Room A with engineer Exit and then mixed two songs with ace engineer Phil Tan.

## HOOBASTANK IN L.A. GARDNER MASTERS 'EVERY MAN'



From left: Hoobastank's Dan Estrin, Doug Robb and Chris Hesse, and mastering engineer Brian "Big Bass" Gardner

What's the reason for Hoobastank's recent visit to Bernie Grundman Mastering? To reunite with Brian "Big Bass" Gardner to master their new album, *Every Man for Himself*, out this month on Island Records; Gardner also mastered their Grammy-nominated debut, *The Reason*. The band also reconnected with producer Howard Benson for their new album, which has already yielded a radio hit: "If I Were You."

## SPIDER SESSIONS EAST PRODUCES NEW ARTIST



From left: producer/arranger Nathan East, keyboardist Tim Carmon, Spider, drummer Ricky Lawson, engineer Talley Sherwood, keyboardist Jeff Bobko and guitarist Michael Thompson

YG Entertainment artist Spider recorded tracks for a new album at Castle Oaks Recording (Calabasas, Calif.). Ace bassist Nathan East produced and arranged; Talley Sherwood engineered.

## IT'S A MADHAT WORLD ABERDEEN RECORDING UPDATE



Standing, L-R: bandmembers Mike Brennon and Chris Tetreault, and producer Tim Andersen. Seated: Justin Olson (left) and Scott Radio.

Spearfish, S.D., band The MadHats recorded their latest album, *Songs for the Common MANiac*, at Aberdeen Recording Studios in Aberdeen. S.D. Studio owner/engineer Tim Andersen produced the album on the studio's Neve 88R, with engineer Scott Radio manning the Pro Tools rig. The album will be released on the company's Aberdeen Originals label.

## TRACK SHEET

### SOUTHEAST

Almost Blue continues tracking at G&G Studios (Atlanta) with Noel Goff engineering... Silent Sound (Atlanta) welcomed songwriter/producer Sean Garrett, in producing R&B artist Joe with engineers Dru Castro and Phil Tan, and artist JoJo with engineer Paul Foley.

### SOUTHWEST

Producer/rapper Trapp (of Deff Trapp Records) recorded his solo debut, *Keep It Gangsta*, at SugarHill Recording Studios (Houston) with engineer James Garlington. Guitarist James Burton tracked for Louisiana band Honky Tonk Heroes' new album; Andy Bradley engineered... Al Jarreau drummer Mark Simmons came to Tierra Studios (Houston) to produce a new gospel album; and ad agency Fogarty Klein Monroe came in to track "Gotta Have Heart," mixed and engineered by Mario Cardenas and Glenn Wheeler for a health-care company commercial... Producer/arranger Roger "Duke" Hatfield teamed with singer B.J. Thomas at Artisan Recording Studios (Dallas) to work on Thomas' new release with engineer Rick Rooney.

### MIDWEST

Producer Matt Kirkwold and engineer James Harley worked on upcoming tracks for Epic artist Quietdrive and Chicago band Lucky Boys Confusion at The Boiler Room and Mastermix Studios (Minneapolis)... Skylyne Studios (Akron, OH) hosted producer Jim Ballard, who was in working on a Northeast Ohio compilation CD tribute to singer/songwriter John Bassette. He'll stick around to produce albums for songwriters Charlie Wiener and Jon Mosey.

### NORTHEAST

Mobb Deep mixed his song "It's Alright," featuring 50 Cent and Mary J. Blige, with producer Havoc and engineer Steve Sola at Sony Music Studios (NYC). 50 Cent stuck around to remix "Best Friends" with Sola... Producer/engineer George Walker Petit mixed the Paul Carlton Octet at Skyline Studios (NYC) with engineer Steve Geuting... Jeff Golub and Kirk Whalum came to Avatar (NYC) to track with producer Philippe Saisse and engineer Roy Hendrickson. Regina Carter did the same with engineer Joe Ferla. Jim Anderson mixed Swiss Jazz Orchestra with producer George Robert; Anderson also mixed tracks for pianist D.D. Jackson. Walter Becker tracked at Avatar with engineer Jay Messina. Jazz legend Sonny Rollins recorded tracks with producer Clifton Anderson and engineer Richie Corsello. Roberta Flack overdubbed with producer Jerry Barnes and engineer Hendrickson, and producer Don Gilmore continued Dashboard Confessional overdubs with engineer Mark Kiczula. In the mastering room, Fred Kevorkian worked on projects for The Walkmen, moe, and Swati, as well as pop/rock band Lucky Day's debut EP... Singer/songwriter Gretchen Witt recorded her new CD at Headroom Digital Audio (NYC). Guitarist Marcus Wolf and Steven I. Rosenfeld co-produced; Alan Varner engineered.



Widespread Ponc spent a month at Compass Point Recording Studios (Nassau, Bahamas) with producer Terry Manning, though keyboardist John Hermann (pictured overdubbing by the ocean) found it hard to stay inside.

### NORTHWEST

Studio D Recording (Sausalito, CA) welcomed Carlos Santana, in to work on the forthcoming Carlos Santana/Wayne Shorter live CD/DVD. Studio owner/engineer Joel Jaffe remixed the project in 5.1. Bonnie Raitt then locked out the studio to rehearse for her current tour and track three songs for an iTunes release with Jaffe engineering. Eddie Money worked on his new album in Studio D with Randy Forrester and Jaffe co-producing, and Jaffe engineering. Maria Muldaur tracked her new album, which is co-produced by Jaffe and Muldaur. Local bands Oxbow and Turmoil also came by... South of San Francisco in Menlo Park, Calif., The Annex welcomed prog-metal band Queensryche, in recording their new album with producer/engineer Jason Slater. Ronnie James Dio came in to record vocals. Two Gallants also tracked a couple of tunes: one for their new album, one for iTunes... Kung Fu Bakery (Portland, OR) hosted sessions for a Ray Charles tribute recording to benefit Oregon Food Bank. Tim Ellis and Patrick Lamb produced... Nettleingham Audio (Vancouver, WA) engineer Kevin Nettleingham mastered releases for Portland area artists RyeHollow, New Shilling, Darren Johnson, Jon Garcia, Brian Ward, Drats!!!, Quinn Peck, Conduit, Exit 7 and Phil and Gayle Neuman, as well as The Starlings.

### SOUTHERN CALIFORNIA

Threshold Mastering (L.A.) welcomed The Subdudes, in mastering their Keb Mo-produced album with Stephen Marsh. Marsh also mastered composer Mark Isham's score for the Wayne Kramer-directed film *Running Scared*... Big Brother & The Holding Company guitarist Sam Andrew came to Buffalo Sound Studio (Van Nuys) to work on material with producer Ted Perlman for the group's forthcoming CD. Members of the current Beach Boys lineup added background vocals to a new project produced by Ron Dante; Perlman arranged, programmed and engineered. Perlman also produced a new CD from Zara Phillips and a duet with R&B singers Deniece Williams and Howard Hewett, featuring George Duke on piano and engineer Joel Diamond at the board... Total Access Recording (Redondo Beach) reports that producer Paul Leary and engineer Wyn Davis recorded eight songs for Lava/Atlantic band Pepper's new CD. ■

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on break, Richard Manuel would hang out in the bungalow, drink coffee and tell us stories. Those five years convinced me that L.A. could be a place where dreams are realized, although I saw other dreams go horribly awry.

Then came a five-year apprenticeship with Clive Davis as Arista's West Coast A&R director. I don't know how many times I strolled into his bungalow at the Beverly Hills Hotel with an armful of demo tapes, most of which would never find their way onto his stereo because he had just as many things to play for me—at top volume and with all due distortion. What job security I had was the result of passing along an import single of Air Supply's "Lost in Love" to the boss; it's one credit I've kept to myself over the years, in part to avoid being needed by my hipster friends.

After spending the rest of the '80s in the world of music trades, I took a job at BMG start-up label Zoo Entertainment, where I signed and worked with Matthew Sweet, Procol Harum and Big Star, and tried unsuccessfully to make Vancouver's Odds a household name. The Zoo job ended abruptly, as A&R jobs tend to do, but I snagged a consultation gig at the Warner

Music boutique label Discovery, which morphed into a free-standing version of Seymour Stein's Sire, leading to another VP A&R gig. It turned out to be a fast-forward version of my Zoo experience, but before I returned to the editorial world in 2000, I had an immensely gratifying experience A&R'ing a project—my final one, as it turned out—with a gifted and fascinating producer. That experience provides the segue to the second half of this column.

The recording facility in which I've logged the most hours during recent years is Studio A at Hollywood landmark Ocean Way. The cavernous, high-ceilinged room where Frank Sinatra, Duke Ellington and Count Basie once worked now has another distinction: Mixmaster/producer Jack Joseph Puig is about to celebrate his 10th anniversary as its exclusive tenant. JJP, as he's called, has mixed countless tracks in A during the past decade—right now, he's mixing The Academy Is, John Mayer and Aqualung—but he's been very picky about taking on P/E/M projects. One of them was *Imagine*, the 1999 debut album of Australian band Taxiride. Stein had signed the group and assigned me to A&R the record, and the first thing I did when I got the news was to drive over to Ocean Way

and play their self-made demos for Puig, who flipped over the hooky songs, close harmonies and elevated musicianship. He readily agreed to do the album from pre-production through the final mixes.

The band and I spent a memorable three months with Puig making the album, becoming intimately familiar with the room, which our host had obsessively decorated: Tapestries and posters of The Beatles, the Rolling Stones and Brian Wilson hung from the walls; the room was subdivided into cozy nooks for the musicians to relax and work in, with upholstered chairs and love seats intermingled with amps and vintage guitars sitting in stands like sabers in scabbards; and the place was lighted like a brothel, with the assistants making sure the dozens of candles stayed lit. The place cast a spell, and I don't recall ever being as relaxed in any studio. That, according to Puig, is precisely the point.

"The womb is only here to make people feel comfortable so that they can get into the music," Puig explains. "In a sense, this is all to get you *off* the environment and into the space of really listening to your music, because you're making a decision about the CD—the mix, the song, whatever—that

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stays forever. It's a serious decision."

The big room is now even more ornate than the last time I stopped by two years ago—there's a faux palm tree, an Oriental chandelier hanging over the long table where people eat and talk, a cozy nook with couches and a stereo beyond the control room glass. But what catches my eye is the careful arrangement of every imaginable effects pedal, 25 or 30 in all, illuminated by a pair of candles atop a road case on which are stenciled the words "SUZIE QUATRO." Now *that* says rock 'n' roll.

"There are no props; everything is used," says Puig, his eyes sweeping over the rococo ornamentation that surrounds him. "The candles are for the vibe, but the gear is not vibe—it's used to make great records. When you were a kid, I'm sure you had a notion of what a recording studio was gonna be like, and unfortunately, if you go into most modern studios today, you're disappointed. So this is everyone's dream. This says you've arrived and it can happen.

"When records are massively successful," Puig asserts, "they are bigger than the people involved. That's a mistake people make—they think it's all about them. But the stars lined up and it just went. You can't tell me that you don't have records in your collection that are amazing that sold two records."

Do I ever. And one of them is that Taxiride record, that labor of love for both of us, made with great care and obvious passion right here in this one-of-a-kind room. ■

*Bud Scoppa is Mix's new L.A. editor. He can be reached at bs7777@aol.com.*

#### NASHVILLE SKYLINE FROM PAGE 131

realized that it had a lot to do with the gear the studios used back then. When prices started coming down on old Ampex tape recorders—and going up on old tube gear—I started grabbing all that stuff. I didn't know as much about design back then, so some of it is long-gone, but I got some good deals, like my Altec 1567A and some of my Ampex 600, 601 and 602 preamps. Later, I had them modified extensively. I got my first Ampex—an AG-440 8-track 1-inch—from a music store in Gallatin [Tenn.]. I learned how to align and maintain it with lots of help from the Ampex Mailing List. Thank God for those guys!"

When I talk to Carter about the studio scene, he is quick to point out, "This town is full of recordists, but Alex Norfleet [over at Grand Palace] and Jason Dietz [of Twin Oaks Productions] stand out. We learn from

each other and, of course, borrow each other's gear. There's also a new collective of artists, engineers and producers doing some pretty serious work with hip hop, trip hop and acid jazz."

Grand Palace is located in downtown Murfreesboro above a flower shop in a 1843 building that was formerly a Methodist church and a house of ill-repute (complete with bullet holes in the walls). The five-year-old creative compound includes a record shop, a screen-printing shop and a studio. Currently, the studio is finishing up a complete overhaul, including acoustic room treatments in its 36x22-foot tracking room and iso

booths, new wiring and a "new" 1978 Amek 2002A console that is being rebuilt by Primal Gear in Nashville. His studio is also outfitted with analog Otari and Studer machines and a large complement of outboard gear and microphones. "Only four of those were ever produced," Norfleet says of the Amek. "It was the prototype to the 2500 Series—a beautiful-sounding desk some refer to as the 'poor man's Neve.'"

When I ask Norfleet for some thoughts on the Murfreesboro scene and why it seems to generate so much music, he notes, "So many folks saw a chance to create it and then proceeded to put their hearts,

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Grand Palace's Alex Norfleet awaiting his "new" Amek 2002A

minds, money and brains behind it every day. It seems that one is free to do here what one wants to do, and that there is a community of dedicated artists who are more than willing to help one do that." ■

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**NEW YORK METRO** FROM PAGE 131

"We're located within a video company called Guggenheim Productions; my clients need their services, and their clients need my

services. When it comes to the lease, a studio is an incredible investment. Ideally, you want to own a building, but that's not necessarily going to be the case in New York City. You want to make sure you're not tied to something that could kill you financially. You have to prepare for the business to grow or fail, and having a lease that protects you is critical."

Studio 1, a 1,000-square-foot, Richard Oliver-designed room, combines a spacious control room with a small

but highly versatile live room, effectively translating Kondracki's penchant for good planning into the audio realm. "I consulted with what clients need and want in their studio," states Kondracki. "The control room is on the larger side, so clients can sit on the couch, watch the plasma and enjoy themselves. The live room is big enough to hold a drum kit, and I do a lot of single-person single-instrument recording there. I also don't buy gear unless it's going to turn a profit within six months. I base that analysis on the types of projects that are coming in and what the clients are requesting, which

keeps me from buying toys and keeps me focused. For example, the room is prewired for surround, but I haven't had a surround project yet, so I haven't bought my additional speakers.

"The other thing I focus on is keeping the business booked as much as possible," he continues. "It sounds obvious, but there are many ways to do it, such as giving clients discounts based on volume bookings. It also comes back to my four principles: If you can be a full-service shop with a diverse range of options and deliver a great product every time, they come to you more and more as their one-stop audio shop. I love my work, and I'm very blessed to do what I do. I'm just constantly looking for new challenges."

Although his site, [www.threatenedpro.com](http://www.threatenedpro.com), may sound like a comment on the state of the industry, it's really just a play on the last name of Alex Theoret, who is discovering increased success with an unusual triple-threat combination of mixing, mastering and live sound expertise.

Theoret's varied capabilities didn't spring so much from a strategy as from a life philosophy. "Ever since I was young, I realized I didn't want to do the same thing all the time," he explains. "So the survival

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aspect of my engineering is part of what I am anyway. I like mixing live shows, but I wouldn't want to do that five days a week. With studio mixing/producing, you get to be like the one thing you're working on, because if you don't, you could be stuck with it for a while. Something like mastering could probably do every day, however, because it's different projects every time."

The road to the 29-year-old Theoret's current balancing act has had its twists and turns. It started with an internship for the New Jersey native at New York City's Quad Studios, followed by a stint in Boston where gigs for his rock band led to live sound engineering experience, then a certificate from Full Sail and a return to Quad in 2001 that would eventually put him on a path toward serious mastering.

"I saw the big studio as an old dinosaur that was tapering off, and I really thought that mastering was something that wasn't people's focus," Theoret reasons. "Musicians have a need for low-cost recording, but kids aren't at home thinking, 'I really want to make his sound great in mastering.' They think, 'I want to record and overclub.' A lot of things facilitate that in the recording industry. Labels are not going to put money into the mix or be record; just because one guy can do the

whole thing out of his bedroom, the label expects it from anyone. So I didn't see being an engineer in a big studio as being the best business move. Mastering was the place that I thought would get hit last from stand-alone boxes."

With his mastering home base now established at TurtleTone Studios (www.turtletonestudio.com), where he works with studio owner Michael Fossenkemper in New York City's Cable Building for clients such as Fat Joe, Mobb Deep and Chosen Few, Theoret enjoys seeing how his different skills have converged. "I think one of the more interesting trades is from mastering to live," he says. "With live, it's got to happen now so you're thinking technically, but also creatively with the sonics. Mastering is similar: You don't want to get so technical that you're thinking only of bits. There's a trade-off in being thorough, quick and knowing your tools. Live, you have to [know specific frequencies] because all systems are divided by subs, low mids and mid highs, and you've got to know what you're hearing. Also, being a producer and playing in my band, The Divide, helps me

PHOTO: DAVID WEISS



Alex Theoret at his mastering home base: TurtleTone Studios

focus on different instruments."

Theoret proves that there is life for truly free freelancers in New York City audio. "People should test the waters of where they want to be, then set a five-year goal," he says. "Think ahead. Look at people who are doing it, people who have succeeded and people who have failed, and ask, 'Why did this work? Why didn't this work? Is this what I want to do?'"

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—FROM PAGE 28, CAN YOU HEAR ME NOW?  
worth a lot of money.”

So losing the no-longer-empty TV channels is going to make a tough situation worse. Unfortunately, there's more. In 2004, the FCC floated a proposal to fill all of the “white space” in the spectrum—even in the lower 51 TV channels—with new *unlicensed* services. “The FCC's policy is that there should not be a single hertz of spectrum from DC to purple light that no one is using,” is how Stanfill sums it up. The commission proposed two types of service: fixed-access, which would include services such as wireless ISPs, which could generate up to 4 watts of radiated power; and “personal portable” devices, limited to 400 mW, which could include home networks, video rabbits (the things that let you play your TiVo on a set in a different room) or even toys.

This doesn't leave a heck of a lot of room for wireless audio, which Stanfill calls the Rodney Dangerfield of radio services: “It gets no respect. Even if you jump all these hurdles, you're still last in line,” he says. “If someone interferes with you, you have no rights, but if someone claims you're interfering with them, you have to stop.” And the irony is, you can go through the whole process to make your 20mW wireless mic system legal, and then, Stanfill says, “someone can walk into Best Buy and get something that will cleanly blow it off the air.”

Reihl doesn't entirely agree with Stanfill. “Unlicensed devices are *not* allowed to interfere with any licensed services, including wireless microphones,” he says, “and they must accept any interference they receive from licensed services. However, the appropriate technical provisions have to be in place for this to work. But as a licensed *secondary* service, wireless microphones must not interfere with licensed primary services such as TV broadcasting.”

Besides the specter of someone coming into a meeting with a wireless BlackBerry and wiping out your audio, Reihl points out that unlicensed devices could have a serious negative effect on the very technology that the FCC is trying to advance. “Set-top and cable boxes are going to be vulnerable to interference from unlicensed devices,” he says. “The government is going to be subsidizing the transition to DTV by handing out converter boxes to low-income people with analog sets. It's going to cost \$1.5 billion. I don't think they'd want to throw all that money out there and have it be a bust because of interference.”

After the FCC released it, the “white space” proposal lay dormant for a while. “Wireless audio companies, especially

Shure, filed a lot of negative comments,” Stanfill says. “And there was a new chairman of the commission, and he had different priorities, so he didn't push it. But now the large electronics companies are trying to do an end run around the commission by having their pet Congressmen file bills to push this forward, without even waiting for the DTV transition.” In February, U.S. Sens. George Allen and Ted Stevens, Republicans from Virginia and Alaska, respectively, introduced legislation that would force the commission to act within 180 days. Lest you think this implies some kind of neo-conservative plot, Allen's bill was co-sponsored by Democrats John Kerry and Barbara Boxer. “The total U.S. market for wireless mics is about \$150 million,” notes Stanfill, “but Intel makes more than that in a week. That buys a lot of lunches and campaign contributions.”

Intel and Microsoft have been lobbying very hard for quick FCC action, reports Reihl. But he is hoping to keep Congress from rushing to implement the proposal before it's ready. He and fellow Shure technology director Ahren Hartman are active in an IEEE group that is trying to develop standards for the fixed-access systems that might end up in the white space. “Shure is the only wireless mic maker in the group,” Reihl says, “but there are others from the programming and production side, like CBS News and Fox, who are realizing they're not just over-the-air services, they're content providers. If the signal chain is broken anywhere along the way, it's no good. We're not working on the personal portable devices—there was an earlier group on that that couldn't come to agreement. But we hope the IEEE will take that up later.”

“Normally, Congress is inclined to let the FCC go about their business since they have the expertise,” Reihl continues. “But Congress has been lobbied very hard by a large range of special-interest groups. We're hoping we can edge the legislators away from the deadline and give the IEEE and the FCC time to come up with a technical solution that works. We gave a Senate group a demo of what the interference will sound like: We set up a signal generator at 0.1 mW and showed them what it would do to a wireless mic, which they might be speaking through at a campaign appearance. It wasn't pretty.”

Our conversation underscores that there's another problem with wireless audio as compared to other data services: Audio is real time. “You can't have latency in a business conference,” says Reihl, “or have the audio and video go out of sync. If a page hesitates while it's loading on your Web browser,



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it's no big deal. But if the audio fails in the middle of a political speech, that's not going to work." We both laugh ruefully when his cell phone blinks out in the middle of that last sentence, and I have to make him repeat it.

"Shure plans to be in the wireless business down the road even if no one else is," says Stanfill. "They sell more than \$50 million a year, so they are probably spending \$300,000 or \$400,000 a year trying to make the best of the situation—hiring lawyers and putting two engineers on it full time. They're investigating technology that would work around the issues in the TV band or else be in a different band. It's now all proprietary, and most of what they're working on isn't going to pan out, but they're giving it a shot."

What Reihl *can* talk about are three solutions that his group is presenting to the FCC to protect wireless mics and other broadcast auxiliary services should unlicensed technologies be allowed to come into the TV band. The first is for the commission to specify exempt channels in each market. Two VHF and four UHF channels would be declared off-limits for unlicensed devices, providing relatively clear space for licensed users.

The second is to have wireless microphone systems include a "beacon"—a small transmitter that sends out a narrow-band digital signal at 250 mW to tell unlicensed devices which channels they can't use. "Unlicensed devices have to monitor the area anyway for other devices using the same spectrum," Reihl explains, "so they could be programmed to recognize this. It allows the spectrum to be flexibly allocated as needed for the time it's needed."

The third idea is even simpler: spectrum sensing. An unlicensed device would "listen" for the presence of wireless mics and avoid operating on the same channel. "It's a useful solution," says Reihl, "but only on a 'best-efforts' basis. There's a pretty good chance the unlicensed device will interfere with a mic system it can't hear." Because the FCC proposal allows unlicensed devices to generate as much as eight times as much power as a typical wireless mic, "There's a good chance it will step on the mic," says Reihl.

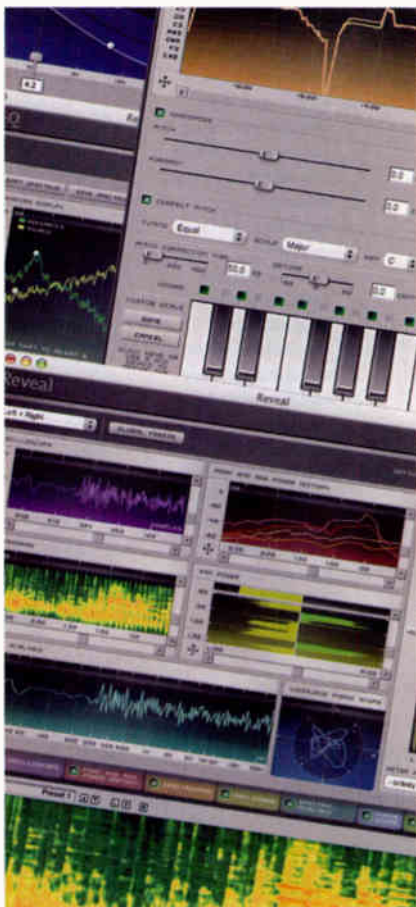
Should the IEEE group not be successful, and should Congress rush into authorizing unlicensed devices in the spectral white space, we may be facing what my anonymous source says would be "a perfect storm" of factors that will make wireless audio all but impossible. "The FCC has generally

done a horrible job of anticipating what's going to happen," says Stanfill. "It could end up like the CB craze of 25 years ago: the Old West in radio form. But in that case, they weren't stepping on anyone else's toes." Adds Reihl, "It's the first time we've seen them throw in an unlicensed service on top of a licensed service."

"Nobody remembers history," continues Stanfill. "The FCC was formed as the Federal Radio Commission in 1927 because there was exactly this kind of free-for-all going on."

"We really need to get this worked out before it happens," Reihl says. "There was an issue between Nextel and public safety over use of the 800MHz band, which took 10 years to solve, but that was using licensed facilities with fixed transmitters, which could be changed. You can't do that with unlicensed stuff. Once you give this stuff to the general public for baby monitors and wireless phones, you're not going to get it back." ■

*Paul D. Lehrman's first wireless rig put out 40 watts and was operated with a telegraph key. His installation of Ballet Mécanique at the National Galley of Art has been extended through May 14.*



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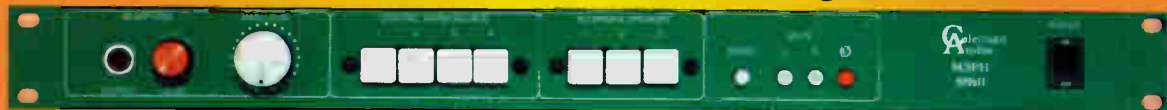


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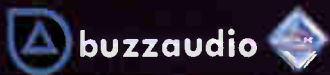


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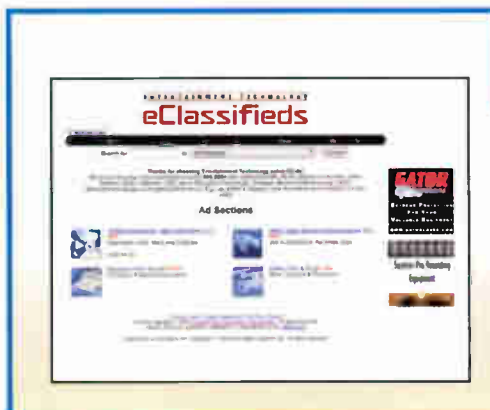
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# Expand & Update Your MOTU Studio

Digital Performer 5 and the new UltraLite compact FireWire audio interface lead a wide range of new products to expand and update your MOTU desktop studio.

## Quad processing

With two dual-core processors at speeds up to 2.5GHz per core, the Apple **Power Mac G5 Quad** doubles the punch of its dual-processor predecessor. Do the math:

Quad-core processing means four Velocity Engines and eight double-precision floating-point units for blistering performance of up to 76.6 gigallops. What does that mean for your MOTU **Digital Performer 5** studio? Run **MachFive**, **MX4**, the **Symphonic Instrument** and dozens of other virtual instruments

processing plug-ins and disk tracks without even batting an eyelash. Blaze through your work, deliver ahead of schedule and astound your clients — because this baby really moves.



## Compact FireWire Audio I/O

The new MOTU **UltraLite** compact bus-powered 10x14 FireWire audio interface is born from the innovative design, proven reliability and award-winning sound of the MOTU 828mkII and Traveler FireWire interfaces. You get 8 analog inputs, 10 analog outputs, S/PDIF digital I/O and 96kHz recording in a compact, bus-powered, fully portable half-rack I/O, complete with two mic/instrument inputs equipped with individual 48V phantom power and 60dB pad/trim preamp gain range, separate main outs and phones, front-panel LCD metering for all I/O, 8-bus CueMix DSP on-board mixing, front-panel programming, SMPTE sync and many other advanced features.

## MIDI Control from KORG

Every MOTU studio needs capable and convenient MIDI control. The new **KORG K-Series USB/MIDI controllers** feature solid, full-sized keys and four velocity curves to perfectly match your playing style. Available in **25**, **49** and **61-key versions**, each provide easy access to the full range of notes thanks to dedicated octave shift buttons, plus a host of assignable controllers including KORG's innovative **ClickPoint**, which performs double duty as an X/Y joystick or a USB mouse. Plus they come with the **M1** i.e. a soft synth version of the legendary M1 to use within DP! Now add the sleek and portable **padKONTROL**, with 16 extremely responsive trigger pads that can be used to perform natural sounding drum parts, trigger audio loops or video clips, and send MIDI control change messages to take charge of your soft synths, samplers and effects. Its unique X/Y pad can be used to perform realistic rolls and flams with the touch of a finger.



## Authentic SSL processing

Waves delivers the classic sound of the SSL 4000 Series to your Digital Performer mixes. To faithfully recreate the extraordinary SSL sound, Waves engineers spent more than a year analyzing and modeling the distinctive sonic characteristics of SL 4000 factory reference consoles and components provided by Solid State Logic. Extensive testing proves that the Waves SSL 4000 plug-ins sound virtually identical to their hardware counterparts. Developed under license from Solid State Logic, The Waves SSL 4000 Collection includes three meticulously modeled plug-ins based on the legendary SSL 4000 Series: the SSL E-Channel, the SSL G-Master Buss Compressor, and the SSL G-Equalizer.



## Universal plug-in control

As a Universal Sound Platform, Native Instruments KORE operates not only as a plug-in within Digital Performer but also as an instrument host application. It allows you to integrate all your VST- and Audio Units-based software instruments and effects into a single, unified interface. KORE provides greatly increased control, overview and ease of use in all creative situations. Both Native Instruments' own range of instruments and effects as well as third-party products are supported. The seamless integration with KORE's advanced hardware controller gives hands-on control with unprecedented analog feel, finally turning today's software synthesizers and samplers from applications into true instruments.



## Pro waveform editing & mastering

Your DP mastering and processing lab awaits you: BIAS Peak Pro 5 delivers award-winning editing and sound design tools, plus the world's very best native mastering solution for Mac OS X. With advanced playlisting, superb final-stage processing, disc burning, plus PQ subcodes, DDP export (optional add-on), and other 100% Redbook-compliant features. Need even more power? Check out our Peak Pro XT 5 bundle with over \$1,000 worth of additional tools, including our acclaimed SoundSoap Pro, SoundSoap 2 (noise reduction and restoration), Sqweez-3 & 5 (linear phase multiband compression/limiter/upward expander), Reveal (precision analysis suite), PitchCraft (super natural pitch correction/transformation), Repli-Q (linear phase EC matching), SuperFreq (4, 6, 8, & 10 band parametric EQ) and GateEx (advanced noise gate with downward expander) — all at an amazing price. So, when you're ready to master, Peak Pro 5 has everything you need. It's the perfect complement — and finishing touch — to Digital Performer 5.

## The gold standard for groove

Spectrasonics Stylus RMX v1.5, the award-winning "groove standard" gets better and better with new features like "Chaos Designer™ Buzz" for stuttering edits, 500 incredible new categorized Multi-grooves and 250 slamming new Kits. It's even easier to learn RMX now with the new Reference Guide/Help System and hours of brand new tutorial videos — including one specifically for Digital Performer users!



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# Expand & Update Your MOTU Studio

## On-demand plug-in processing

How do you conserve precious CPU cycles for the demands of your Digital Performer based studio, but also run all of today's latest plug-ins and virtual instruments? The Muse Research Receptor is a dedicated hardware-based plug-in player for your favorite VST software. With 16 channels to run virtual instruments or effects, a built-in MIDI interface and a versatile complement of digital and analog I/O. Receptor is the ideal way to run plug-ins while keeping your host computer running smoothly. Control everything from the front panel, or simply connect a monitor to the back. Visit [museresearch.com](http://museresearch.com) to view demos by Dream Theater's Jordan Rudess and to learn about Receptor's new UniWire™ technology, which provides MIDI, audio, and remote control between Receptor and your computer via a single Ethernet cable. Receptor provides the ultimate in performance, stability, and sonic performance.



## Control room monitoring

The PreSonus Central Station™ is the missing link between your MOTU recording interface, studio monitors, input sources and the artist. Featuring 5 sets of stereo inputs (3 analog and 2 digital with 192kHz D/A conversion), the Central Station allows you to switch between 3 different sets of studio monitor outputs while maintaining a purely passive signal path. The main audio path uses no amplifier stages including op amps, active IC's or chips. This eliminates coloration, noise and distortion, enabling you to hear your mixes more clearly and minimize ear fatigue. In addition, the Central Station features a

complete studio communication solution with built-in condenser talkback microphone, MUTE, DIM, two separate headphone outputs plus a cue output to enhance the creative process. A fast-acting 30 segment LED is also supplied for flawless visual metering of levels both in dBu and dBfs mode. Communicate with the artist via talkback. Send a headphone mix to the artist while listening to the main mix in the control room and more. The Central Station brings all of your inputs and outputs together to work in harmony to enhance the creative process and ease mixing and music production.



## Large capsule mic

The new RØDE NT2-A can be plugged directly into your 828mkII, Traveler or UltraLite interface. This professional large capsule (1") studio microphone incorporates three-position pick-up patterns, pad, and high pass filter switches conveniently located on the mic body. At the heart of the NT2-A is the Australian designed and manufactured HF1 dual diaphragm capsule. The frequency and transient response of this new transducer has been voiced to complement today's modern recording techniques, and yet still evoke the silky smooth character of the legendary microphones of the 50's and 60's. These features provide the flexibility and superlative audio characteristics that make the NT2-A one of the most versatile condenser mics available. The NT2-A's variable controls allow switching between Omni, Figure 8, and Cardioid polar patterns. The three position high-pass filter provides a flat response or an 80Hz and 40Hz high pass filter. The microphones Pad can be switched between 0 dB, -5dB and -10dB. The NT2-A comes in a soft pouch with an M2 stand mount.



## Power conditioning

A large-scale MOTU-based multitrack studio is not only a finely-tuned instrument, it's an investment. Protect that investment — and get the best possible performance from it — with the Monster Pro 2500 and Pro 3500 PowerCenters. Many so-called "power conditioners" only protect against random power surges and/or voltage spikes. But AC power line noise and noise from other components is an equally harmful and constant threat to your gear's performance. To prevent this, Monster's patented Clean Power™ filter circuitry (U.S. Pat. No. 6,473,510 B1) provides separate noise isolation filtered outlets for digital, analog and high-current audio components. The result is high quality sound that's free from hums, buzzes and other power line artifacts, revealing all of the rich harmonics and tone in your recordings. Get All the Performance You Paid For™. Get Monster Pro Power.





## Automated mixing and control

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## Accurate monitoring

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## MOTU system expert advice

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