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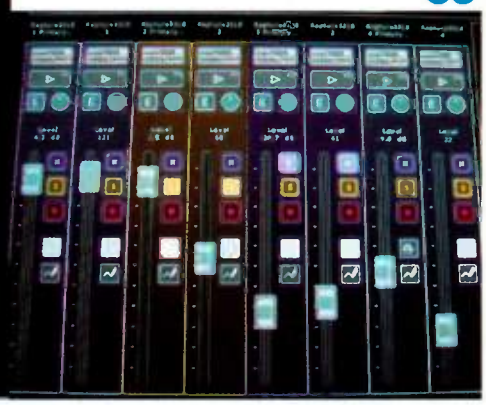

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Talk Box

GIVE THE PEOPLE WHAT THEY WANT

It's a saying as old as show biz itself. But that begs the question: What do people *really* want?

Calculated attempts to come up with something "commercial" aren't always successful. In fact, many times something completely unanticipated strikes a chord. For example, we decided to do an issue of *EQ* with a theme of circuit bending, based solely on a gut feeling that some people would find it interesting. No one had ever written in asking us to cover that topic, yet the issue went over extraordinarily well. And sometimes, you just get lucky: When Tommy James' song "Hanky Panky" was released, it went nowhere nationally. A year later, a DJ in Pittsburgh stumbled on a copy, played it, and the phone lines lit up with requests. The song went on to become a monster hit, as well as launch a career.

We've all heard how the band Boston was rejected by label after label, yet ended up having a huge debut album. Clearly, the labels that rejected the band thought it wasn't what the people wanted—but millions of albums proved them *very* wrong. Even the Beatles were rejected by numerous labels before getting signed.

So, what's the secret of giving people what they want? There isn't one. No one can predict with certainty what will work and what won't. Movies with huge stars and big budgets have flopped, while cult movies shot on a shoestring have been huge. According to legend, the Ford Edsel was the first car produced as the result of meticulous focus group research—and it was a commercial disaster. There's a lesson in there somewhere.

Ultimately, all you can really do is be true to yourself. Don't try to be commercial; be *authentic*. People will often respond more favorably to something sincere than something calculated. Strive for originality, because there's so much music being released these days, the "noise-to-signal" ratio is incredibly high. You'll have a better shot of being noticed if there's something noteworthy about what you do, and doesn't have a "been there, done that" vibe.

Granted, being uncompromising in what you do and not taking commercial considerations into account is no guarantee of success—far from it! Despite your best efforts, your music simply may not resonate with people. But if it does, it will be for the right reasons, and you will indeed be giving people what they *really* want—which is an emotional connection, courtesy of the magic of music.

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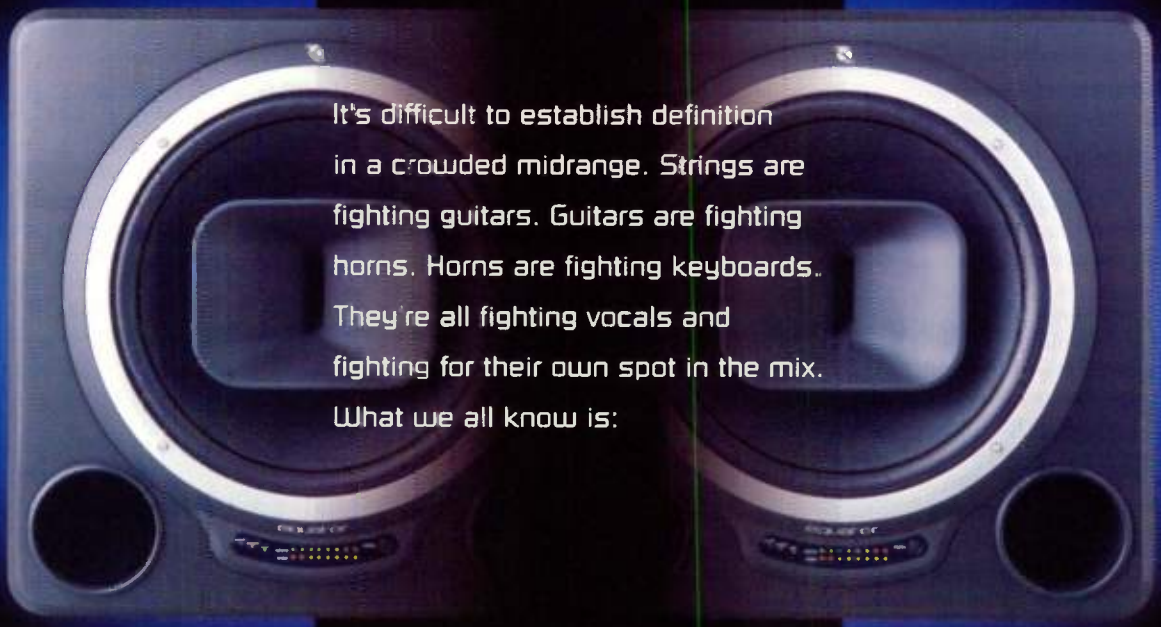
HOW DO YOU FIND CLARITY IN A DISTORTED AUDIO WORLD?



It's difficult to establish definition in a crowded midrange. Strings are fighting guitars. Guitars are fighting horns. Horns are fighting keyboards. They're all fighting vocals and fighting for their own spot in the mix. What we all know is:

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Andrew W.K. recording vocals for *Close Calls With Brick Walls.*

ANDREW W.K.

DREAM WORLD

How **Andrew W.K.** and **Lee "Scratch" Perry** Brought Magic Into the Studio for *Close Calls With Brick Walls*

by Merrick Angle

Popular music has seen some strange, if not combustible, production collaborations, from Leonard Cohen and Phil Spector to Wyclef Jean and, well, just about everybody (including the Rock). But of all the odd pairings of the past, there are probably none stranger than the alliance of card-carrying "party hard" rocker Andrew W.K. and dub-reggae pioneer (and noted eccentric) Lee "Scratch" Perry on 2006's *Close Calls With Brick Walls* [Universal].

"I don't often bond with people creatively," states W.K. "I recorded all my albums on my own, one track at a time using Cakewalk Sonar—mainly out of necessity. I didn't have a band, the space, or the budget to hire people or equipment. I really liked working with Sonar, because I could have multiple regions of audio in one track, and overlap them to make this collage of waveforms. I work with Pro Tools LE, as well, because I love the speed at which I can edit. I don't need any fancy HD versions. My friend Don Fleming is passionate about 96kHz, but I've done some blind listening tests, and I don't think there's a huge difference. So while I grew to really like the process of recording privately, I was beginning to wall myself in. By *Close Calls With Brick Walls*, I felt I needed to work with other musicians."

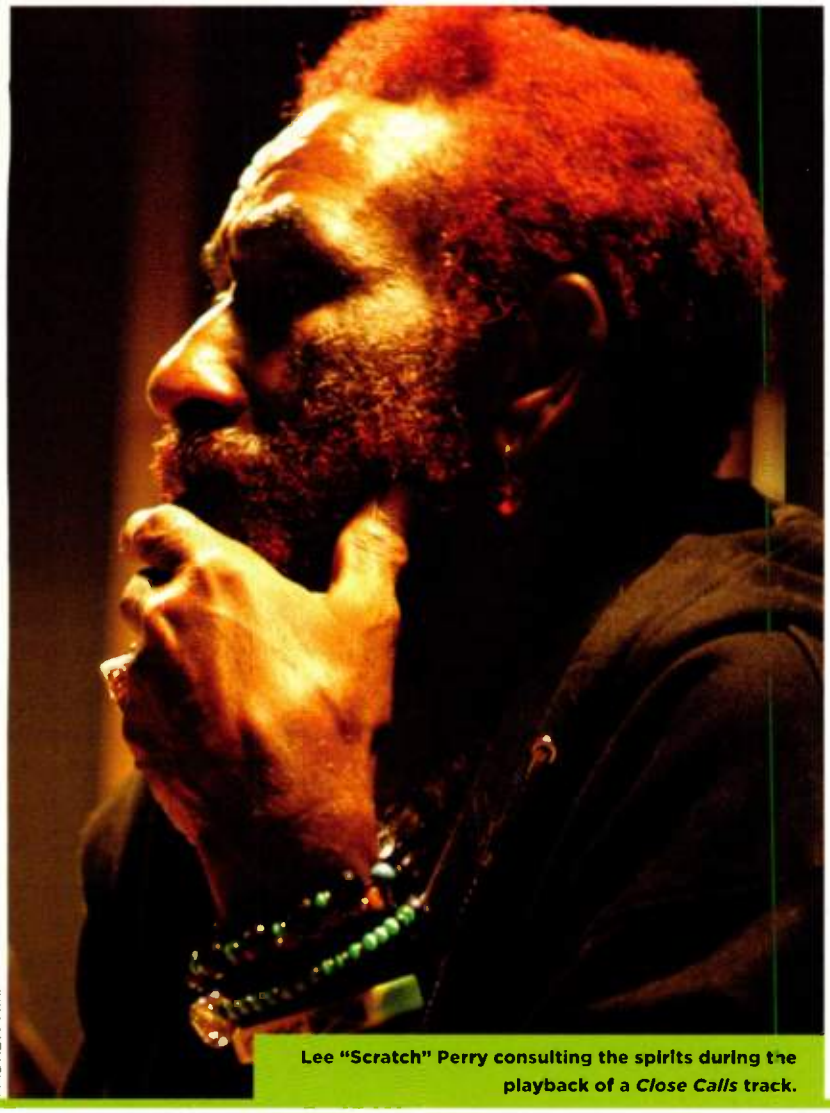
Enter Perry. Narnack, Perry's record company, approached W.K. after the rocker interviewed the reggae legend, and W.K. jumped at the opportunity.

"I could talk about myself forever," says W.K. "But I could talk about Lee forever plus one. He is the first person I have met who truly uses magic in the studio."

"Well, that is so," says Perry from his Swiss home base. "Me is a man living in this world. I am a stranger here. I am living in the original world—the original world is a dream. Life itself is a dream. I come here by a dream to fulfill my destiny. So when I go into the studio, I don't think. I hear exactly what I need from my dimension. I hear the words I need from my dream. I hear the music I need from my dream. All I need is some students—young men with open minds—who are ready to seek my reality. I speak and they hear. I hum the bass line, piano, and the guitar."

Perry's "students" for W.K.'s album were session musicians who were originally brought in to perform a collection of cover songs. Project engineer Dave Irish set up a few room mics, and let the instruments mix themselves naturally in the air.

"The priority was just to make music—not to worry about production values," says W.K. "Lee began conducting everyone, and, soon



ANDREW W.K.

Lee "Scratch" Perry consulting the spirits during the playback of a *Close Calls* track.

enough, we were jamming out original songs. How we moved from playing covers to playing original songs is still a mystery to me."

Perry, however, wasn't amazed at the transformation in performance between the players.

"Creating music is through the thought waves," he explains. "You clean inside, and because you are clean inside, you want the musician to play what you are hearing. You open your brain, and open his brain, and he will pick up the thought waves."

"That's part of his magical approach," adds W.K. "He doesn't have to explain things to people—they serve his will without him having to tell them. If a producer is defined by what they can bring out of other people, then he is one of the greatest. I was grateful for the chance to work with him, to live in his presence, and, ultimately, to serve him." EQ

EQ'S FREE SOFTWARE TUTORIALS

EQ, in conjunction with *Keyboard*, has posted 100 percent, totally free online educational software webinars complete with archived Q&A chats with hosts John Krogh and Jeff Anderson on the www.eqmag.com homepage. Direct links to these special offerings are as follows:

John Krogh's Propellerheads Reason 4 tutorial
http://www.visualwebcaster.com/event.asp?id=44581

John Krogh's Native Instruments Kontakt tutorial
http://www.visualwebcaster.com/event.asp?id=44605

Jeff Anderson's Digidesign Pro Tools 7.4 LE tutorial
http://www.visualwebcaster.com/event.asp?id=44606

So get your butt in gear and go check them out. You'll be glad you did.

This Month on EQTV

Join us at *EQtv*. *EQ*'s own video channel chock full of tips, tricks, tutorials, behind the scenes footage of some of the hottest sessions, and tons more. To check it out, visit www.eqmag.com and click the pretty little link, or go direct to www.eqmag.tv. You'll be glad you did. This month you'll see:

- Inside Atomic Garden Studios
- Remixing Led Zeppelin
- In the Studio with Mates of State
- Absorption and Diffusion Strategies for Your Control Room

AND TONS MORE!!!

LEGAL AFFAIRS

What the "New Model" of Record Deals Means to You. Part Two.

by Moses Avalon

In the March 2008 issue of *EQ*, we talked about the new 360 Deals (also known as "All In" contracts). To briefly recap: These deals allow record labels to take a cut not just from record sales, but also from every other aspect of an artist's career, including revenue from touring, licensing, publishing, and merchandising. The labels claim they are offering higher splits than what is found in traditional deals, and thus such deals are ultimately good for artists.

Is this true, or are these so-called 360 Deals just new methods of artist exploitation?

Moreover, with mega music execs such as Jimmy Iodine of Interscope demanding every new contract signed be in line with the 360 model, the question remains: Will these deals be the magic elixirs needed by majors to stay relevant, or will they be their final undoing?

In the March *EQ*, we explored alternative scenarios, such as the now-famous "Radiohead experiment," which tested one-to-one sales directly to the fan base as a viable substitute for what labels offer. The good news was that this experiment resulted in approximately 100,000 downloads, with the average customer paying $9. The bad news was that many fans didn't pay a dime for the album. Still, Radiohead's strategy—as well as the Eagles/Wal-Mart and Madonna/Live Nation deals—shows us that superstars *do* have other options.

But what about new artists? What about acts without millions of devoted fans impatiently awaiting their next release?

I've run some numbers, and, personally, I think what we have in these 360 Deals is a typical "rich-get-richer" scenario. For artists who have crossed the platinum threshold, this kind of deal is a sweetheart. Instead of making the standard $1.50 per record, they will now average around $3.50 per unit sold. Even though it means giving up a piece of publishing revenues, this will probably net out to a good deal for those few who can count on going platinum.

However, if you aren't a part of that upper one-percent, a 360 Deal probably won't benefit you. Sure, you'll stand to make that same $3.50 per record, but you're not likely to sell enough to recoup on your advances—which means you'll get zero from record sales. Meanwhile the label will get big pieces of your publishing and merchandising streams—revenue streams that, at one point, were considered untouchable.

Artists who don't meet the tipping point, and, instead, end up in recoupment hell will be left wondering, "How the hell do I get out of this trap?" To find an answer to this question, I bounced some relevant legal theories off a few lawyer friends by work-shopping the topic at the Los Angeles Bar Association. What I found out was incredibly interesting. The general consensus was that artists may find themselves in the situation where they can exploit some alarming weaknesses in these 360 Deals, and leave the labels wondering how they painted themselves into a corner.

For example, if a legal-savvy artist sued the label because said label *didn't* exploit all the new "rights" they are assuming under a 360 Deal, he or she might just open the labels up to several very

undesirable judicial rulings. The main hypothetical ruling is that, now that the label has total participation, they may also have a fiduciary responsibility to the artist. In laymen's terms, this means the label is legally responsible for helping the artist make decisions that are in the artist's best interest—which might mean *not* signing the deal. Ironic? Sure. Bizarre? Definitely. But very possible, and this is why being a fiduciary is something labels have been trying to avoid for decades—to the point of spending gobs of lobbying dollars.

Another area to explore is "conflict of interest." All of the revenue streams the label now participates in seem to qualify them as a "manager." However, by law, you cannot be both a manager *and* a label to the same party. In many such cases, judges have severed—and sometimes completely dissolved—contracts because of such conflicts of interest.

Case three: If the label uses 360 Deals as an opportunity to start booking acts (and they will), and the label is based in California (as most of them are), they will bump up against California's famous Talent Agencies Act that prohibits anyone other than a registered agent from booking gigs. And if the label doesn't secure their legal status to book gigs to sidestep this law, the artist could then claim that the label has abandoned some of their rights, and, therefore, the judge may give them back to the artist.

The labels' first defense will be pretty obvious. They will claim they are not really mangers, or agents, or fiduciaries. They are simply enjoying revenue from these sources without actually contributing to their value. This will lead to the artist claiming "unjust enrichment"—an almost indefensible position under these circumstances.

Now, it's possible the labels have thought all this out, and are ready to tackle such claims. After all, it's not as if big business entities are short on legal counsel. But, historically, labels have been short on long-term thinking. Given that, I doubt they are ready for any massive artist backlash. In addition, if they are as unprepared as I'm guessing, there will be some very intriguing sparks in the years to come. Instead of threatening to audit their label, if an artist became unsatisfied, they will simply threaten one of the actions above.

No label wants to go to court over a contract dispute. History has shown that judges look shamefully down at them, and these issues have even greater legal teeth than the old ones of simple "breach of contract." I predict labels will do nearly anything—up to and including giving back some of these new "rights"—rather than debate the integrity of their new 360 Model in front of the courts.

I mean, imagine investing millions in an act only to have a judge say the deal is off. Then, imagine every artist using this ruling to get out of their record deals—years after they have taken large advances. As the old Chinese proverb goes, "May you live in interesting times." EQ

TOOLBOX

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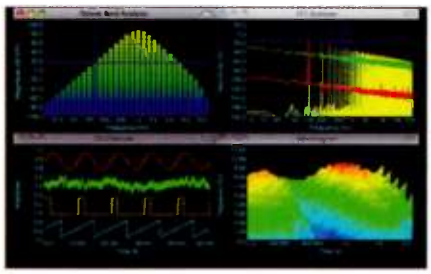
6 DEVICES UNDER $600 FOR THE SINGLES



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TOOLBOX

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Big Twelve Inches

Engineer Jay Messina on Recording the Aerosmith Masterworks *Toys in the Attic* and *Rocks*.

The year was 1975, and a five-piece band from Boston known as Aerosmith had just wrapped up a lengthy tour to promote its sophomore release, *Get Your Wings*. Both that album and the band's self-titled debut had charted gold, but the members were still hungry—ravenous, even—for breakout success. Little did they know that the next 24 months would propel them from an opening act to full-fledged arena-rock superstars, and forge a legacy that, three decades later, would remain strong as ever.

But the band didn't get there alone.

When studio mastermind Jack Douglas and engineer Jay Messina stepped onboard for the *Get Your Wings* sessions in 1973–74, they established the beginnings of a production team that would help provide the so-called "Bad Boys from Boston" with the sounds, songs, and swagger to dominate the airwaves. Fully in charge for the next album—co-producer Ray Colcord and engineer Rod O'Brien helped with *Wings*—the duo channeled Aerosmith's raw, reckless brilliance into the 1974 smash *Toys in the Attic*, and its 1976 platinum follow-up album, *Rocks*. These groundbreaking and influential records secured Aerosmith's status as rulers of the mid-'70s hard-rock scene.

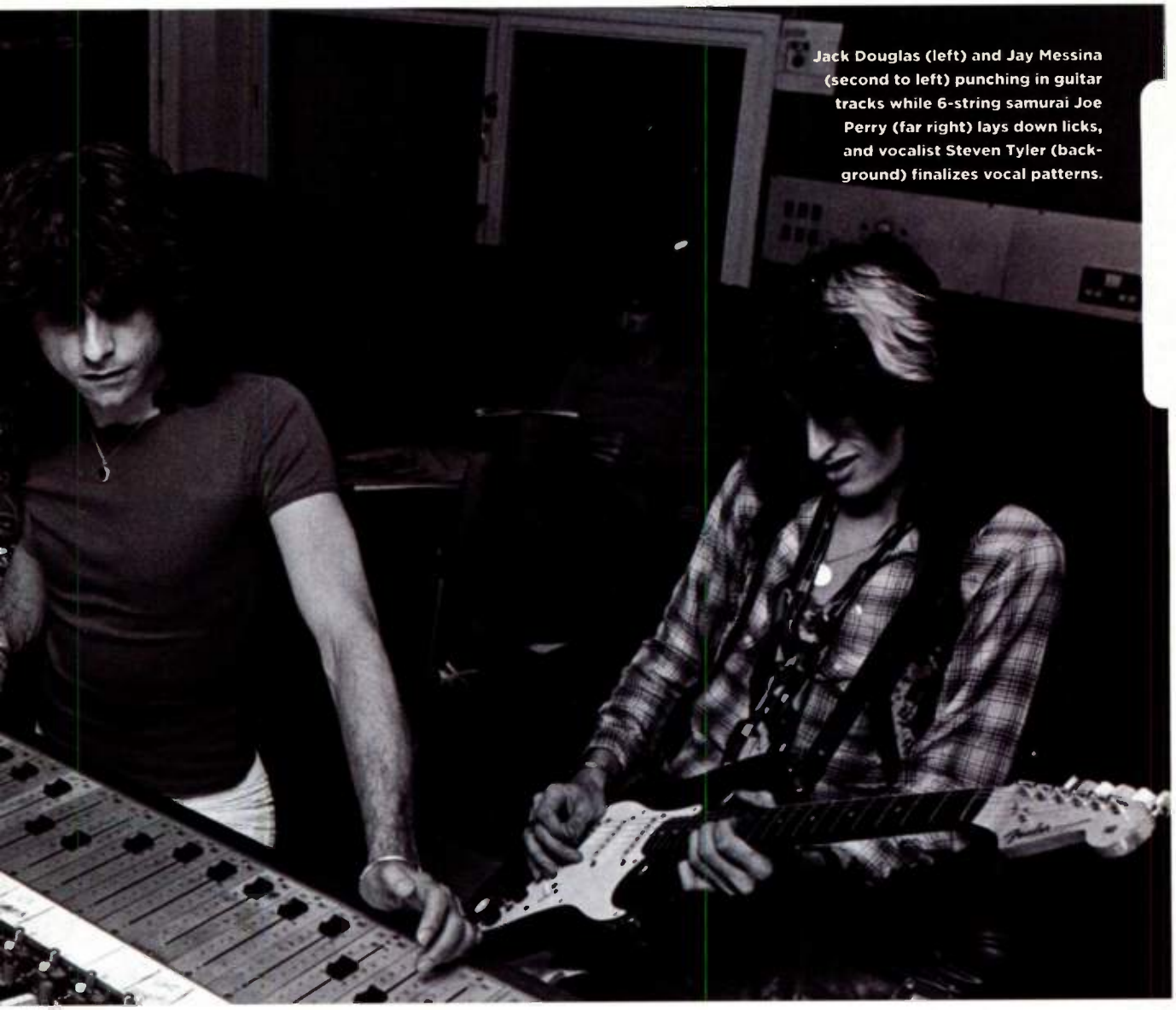
Now, 30-plus years after *Toys in the Attic* and *Rocks* first hit the shelves, Messina broke out the albums, and sat down with *EQ* to reveal the studio techniques used to create two rockin' masterpieces.

What was your experience prior to working with Aerosmith?

I started at Don Elliot Productions in 1966. Fun fact: Don had Les Paul's one-inch 8-track machine, of which there were only five in the world at the time. My first session there was with Ravi Shankar. I recorded it with David Lucas, the engineer who was there at the time, and I was told a doctor would pay me at the end of the session. Ravi and his band wanted to play to this psychedelic film, so we set up a 16mm projector in the control room—which made quite a racquet. At the end of the night, I went over to the doctor and got a check from him. The doctor was Timothy Leary.

Around 1968, I moved to A&R studios. Phil Ramone ran it, and it was kind of like a school. I started mastering vinyl there on a mono Neumann lathe. It was a really good background for me to get into before getting further into recording, because I got to know what *not* to do in my mixes. For example, you didn't want a lot of out-of-phase material, as it will lift the cover-cutter head right out of the grooves, and your record will skip. For the same reason, you had to be careful about the low end. Also, a

by Rich Tozzoli



Jack Douglas (left) and Jay Messina (second to left) punching in guitar tracks while 6-string samurai Joe Perry (far right) lays down licks, and vocalist Steven Tyler (background) finalizes vocal patterns.

circuit protected the cutter head from too much high-end voltage. It would just lift the head up, and you'd have to start the cutting process over. A lot of things that sounded fine on tape wouldn't translate to an actual vinyl record because of the limitations of the format.

I went to the Record Plant in New York City in 1970. As soon as you walked in the place, it felt like you were going into the coolest nightclub in town. For example, I was invited to see the Who record in Studio A, and there were all these colored lights turned down low. They were about to do some vocals—I could hear breathing out in the studio—and just by the level of the hiss from the return of the EMT plates and the general amplifier noise in the room, I could tell how loud it was going to be. They had a quad system in the room with 300-watt monitors, and they were all on. Sure enough, when they put the tape on, it was incredibly loud, but the sound was just awesome. To this day, Studio A is one of the best-sounding rooms I've heard.

What console was in there?

Studio A had a Spectrasonics console—which is very straight ahead. There wasn't a lot of flexibility with aux and cue sends, and you didn't get a lot of bells and whistles. But it was a super board, and you could get amazing sounds down on tape with it. Studio B and Studio C had Datamix consoles at that time.

It was while working at the Record Plant that you got hooked up with Jack Douglas, right?

Yes. Jack was assisting at that time, and he got on a few of my dates. We clicked as friends, and we also liked the way we worked together. It was a real natural partnership. Then, Jack got a couple of good opportunities to advance his production skills. I guess the first big one was when Bob Ezrin gave him the chance to co-produce *Get Your Wings*. Aerosmith was up and coming, and Columbia recognized them as a band that was going to happen. So that's when we met the guys, and Jack and I ended up working on *Get Your Wings* together. Well, that record didn't take off, but Columbia

Big Twelve Inches

was still impressed with the band, and they also felt Jack and I were a good match for them. So we started *Toys in the Attic*.

Did the band write a lot of *Toys in the Attic* in the studio?

Yes, and also during pre-production with Jack. Certainly, a lot of [vocalist] Steven Tyler's lyrics were written in the studio. For instance, we all went to the movies one night, and saw *Young Frankenstein*. The "walk this way" line in the film is what inspired Steven to write "Walk This Way." The band was in a very creative place.

What did you record *Toys* on?

The deck was an MCI two-inch 16-track that was running Ampex tape. We used the Spectrasonics console in Studio A, and we had some really cool outboard pieces such as Roger Mayer limiters, and an old Altec compressor that gave the guitars a cool, subtle squash.

How did you track the guitars on that album?

Typically, I would use the combination of a Shure SM57, a Sennheiser 421, and a Sony C37. I would place all three mics close to the grille, and mix the signals down to one track. The "edge" would come from the 57 and the 421, while the C37 would provide the "weight." Sometimes, we would add a little bit of phasing to get some extra edge. We had an Eventide flanger that we used occasionally, as well, and if it sounded really good, we would just print the effect to tape. In the mix, we would usually pan Brad Whitford's guitar to the left, and Joe Perry's guitar to the right. They had some great old Fenders, and Joe used a small Gibson stereo amp that just sounded amazing. Most of the time, it was just one or two amps per player being tracked. Once we experimented with assigning one guitar to 13 amps, and miking them up. That's when we discovered that having 13 amps doesn't make the guitar sound 13 times better than one amp!

What about Joey Kramer's drums?

We set the drums on a wood floor. I would get a Sennheiser MKH 415 shotgun mic up as high as I could, point it straight down at the snare, and then put a Universal Audio 1176 on it, squashing it at around a 20:1 ratio. Generally, I would just add some of that channel under the dry track in the mix. On the snare, I sometimes used an Altec 633A "salt shaker" in place of a Shure SM57. I only miked the top head, and I used a Pultec EQ to boost slightly at around 10kHz and 100Hz. The hi-hat mic would be a Neumann KM 84, and for the toms and overheads, I used Neumann U87s. With the overheads, I would position the mics so I had a good shot at all the cymbals, but I always tried to maintain the snare in the center of the image. For the kick, we used an Electro-Voice 666. We also added some board EQ on the kick to boost the low end at 50Hz, and the attack at around 3kHz.

Toys In The Attic had drums assigned to five tracks: kick on one, snare on two, everything else on three and four, and the shotgun mic on five. The exception was "Sweet Emotion," where the shotgun mic was multed to two preamps. One was limited with a UREI 1176, and the other with a Universal Audio 175. Each signal was printed on a separate track. I rarely adhered to traditional miking techniques back then. I was all about experimentation.

You also played some percussion on the album.

I played bass marimba on "Sweet Emotion." We felt the bass part was missing a little edge to it, and Jack knew I played vibes, so I gave it a shot, and doubled the bass part. It worked great with the bass sound. It's in the intro, and the re-intro after the first chorus.

Was Tom Hamilton's bass sound all direct, or a mix of amp and DI?

It was a mix of both amp and DI—which were submixed to a single channel. Tom used an Ampeg B15 amp, and we would take the direct line off the amp head. The mic would have been an Electro-Voice RE20. We also used an old Flickenger tube limiter—a monstrous bass compressor that had its own special sound. If you applied it moderately, it kept the low end from getting muddy, and it added lots of punch in the mids. We would occasionally use a Lang Program EQ to boost the 2kHz range for some added edge.

I heard Steven didn't use headphones for most of the album. How did you record his lead and background vocals?

When Steven didn't hear headphones, I would record him with the shotgun mic because of its narrow polar pattern. I would set him up with a couple of monitors in the live room, and send a mono feed. We'd place the monitors out of phase, and then position Steven in the sweet spot where the two signals almost completely cancelled each other out. If he was hearing headphones—which he did on occasion to sing background vocals and other parts—I'd use a U87. While the backgrounds are mostly Steven, Joe would sing occasionally, too. You can hear him on there if you listen.

Was *Toys* mixed right there at the Record Plant?

Yes, and it wasn't that difficult. Jack and I would both get our hands in there on the mix, and if we needed other hands, we would just ask. You couldn't be shy about asking for help, because there was no automation. You had to manually ride the faders. The mixes were often a combination of using extra hands, or mixing songs in pieces, and then editing sections together. We would cut and assemble the order on 1/4-inch tape running at 15ips. The whole record took around four months to finish.

What reverbs did you have at the time?

They had some really cool EMT plates, and a spring reverb. Most of the reverb you hear—like on "Sweet Emotion"—was the EMTs. If we had a cool reverb sound going, we just printed it to tape.

Did you rely on a lot of compression for the mixes?

We didn't use much. We would hit the tape hard enough to get some natural compression, and then add just a little to the guitars and bass to even things out. The exception was the shotgun mic above Joey's snare. I'd really squash that one.

Later on, when we recorded *Rocks*, I'd take the drum mix—mostly kick and snare with a little bit of the overheads—and route it from an aux send to an 1176. I would really squash that signal at 20:1, and I'd have the input level up to the point where you think it's too much. The 1176's release function would almost enable you to put the compression in time with the song. What I mean is, based on how quick or slow the release was set, I could try to have the 1176 back to zero compression by the time of the next snare hit. That way, you always hear the crack of that

next snare fully. Also, if you were hearing too much of the cymbals, you could slow up the release, and it wouldn't pull up a lot of cymbal bleed. When mixing, I would add the compressed signal in parallel to the other drums to get an apparent loudness to the kick and snare without adding much meter level. This is how we got that "hit you in the chest sound" for Joey's drums.

How many tracks did you use?

When we remixed *Toys in the Attic* for 5.1 surround a few years ago, I had it transferred from the 16-track master to Pro Tools. When I looked at the track sheets, I noticed that there was at least one track open on all the songs. We basically used only 15 tracks for the whole record.

What did you print the mixes to?

The final master was a 1/4-inch Ampex tape. We were very conscious of the low end and any out-of-phase material, because we didn't want the vinyl records to skip. Doug Sax did a great job mastering the record. He sonically brought it up another notch.

Let's move onto *Rocks*. What's the story there?

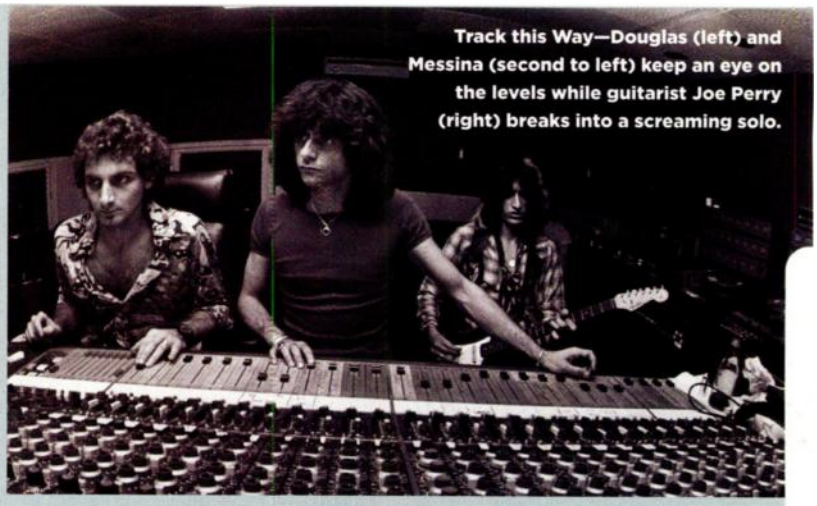
The guys were rehearsing in a warehouse in Waltham, Massachusetts, and they were getting really comfortable up there. It turned out that everything sounded really good in the room, so we just parked the Record Plant mobile truck in the warehouse.

So you just miked everybody up where they were in the room as if they were practicing?

Yes—even to the point of using this huge speaker cabinet Joey had set up behind his drums for the rehearsals. He had a mic just lying in his bass drum, and we ran the signal through a little MXR equalizer with everything from 125Hz and up rolled off, and everything below 125Hz boosted all the way up. A big woof of air would come out of that cabinet, and he'd feel it every time he hit the bass drum. It made for a really cool bass-drum sound—although it bled through everything except the guitar mics that were positioned right on the speaker grilles.

How were the band members positioned in the warehouse?

They were set up in corners. As you walked in, the drums were just to the right. There was a guitar amp in the far right corner, a guitar amp in the far left



Track this Way—Douglas (left) and Messina (second to left) keep an eye on the levels while guitarist Joe Perry (right) breaks into a screaming solo.

JACK'S TALES FROM THE ATTIC

Often referred to as the "sixth member of Aerosmith," Jack Douglas was instrumental in helping shape the band's early sound. With a long track record that includes the likes of John Lennon and the Who, Douglas is certainly no stranger to making hit records. Here, he reflects on working behind the scenes with "the bad boys from Boston" for *Toys in the Attic*.

What were some of the challenges in making the album?

At that time, their performances could be dodgy. They would get a few moments of brilliance, and then fall on their asses, but I wouldn't want to stop the take. I would just go for whatever I could get. Sometimes, I would be banging a cowbell in a booth just so the tempo would stay straight. That way, I could edit all the takes together when it was done, because the brilliant parts would just be incredible.

The band has often called you their "sixth member." Explain the specifics of that role.

That "sixth member" phrase is because of the situations that went down in preproduction, when I would basically move in with them. We would create songs from the ground up, and, because of their touring schedule, they would just show up and ask, "Got any songs?" We would develop stuff from the ground up—such as the riff on "Walk This Way," or the bass part to "Sweet Emotion." The major contributors were Steven, Joe, and myself, but everyone certainly pitched in.

You mixed *Toys* with flying fingers.

That's right! We would mark fader levels with pencils—and even tape razor blades down to block faders from being moved past a certain point—and then it would be all hands on deck. Sometimes, you would just do a verse, then reset for the chorus, and make all your pre-planned moves. There would be stop points set for the drum fills, and so on. I miss that process, because things happened by accident on those records that were just really cool.

Did you realize how great *Toys* was when you were working on it?

No. I was too close to it. When Bruce Lundvall [president, Columbia Records] came in to listen to the whole album, I was thinking, "Oh my god, its just terrible." I thought it must have sounded like this mushy big mess flying at him. After it was over, Bruce said, "I think I can take a breath now." And I thought, "Wow, he really hates it." But then he said, "It's brilliant. There's gotta be four singles on there that are amazing." And there are only nine songs on that record! —*Rich Tozzoli*

Big Twelve Inches

corner, and Tom's bass rig was in another corner. It was so loud that they would easily hear each other no matter where they stood. That was the point. We isolated amps and the drum kit a bit with blankets, but, of course, that only worked so well.

Was everyone miked up the same way as on *Toys*?

Yes—although we did try a pair of binaural mics on Joey. Those mics have their applications, but they weren't an overwhelming success, in my opinion. We also miked this big cement room off the loading bay to get some ambience. It sounded huge. We got some great tracks up there, and we went back to the Record Plant for overdubs—mostly vocals, but some added percussion and guitar parts, as well—and mixing.

Here's a funny story—at that time, CBS had to have their union engineers on the session, so we always had these two guys hanging around the warehouse. Right at the end of one tune, we heard a door creak open. It was one of the guys coming back from coffee. In the mix, we had to make the creak louder, because we couldn't get rid of it. You can hear it at the beginning of "Nobody's Fault."

What console was in the mobile truck?

It was a DeMideo board that was super straight-ahead and clean. It had minimal EQ, so it was just used to get the sound on tape.

How did the limitations of the board affect your approach to recording the album?

It was a matter of just finding the right mic, putting it in the right place, and getting it on tape as clean as possible. In that sense, it made the album easy to record.

When you listen to *Toys In The Attic* and *Rocks* now, what are your thoughts on them?

I didn't realize at the time that these would be big releases, or that they would go down in history as classic rock records. Who knew that "Walk This Way" and "Sweet Emotion" would become the radio staples they did? But I do remember being excited about the sessions. These albums were fun to work on, and fun to mix, and it's nice to be driving in the car, and still hear them playing on the radio.

What comes across is the energy of the songs and the mixes—which is what we always wanted to put into the records in the first place. Listening back, it's not about asking, "Is there enough 10kHz on this or that," or focusing on specific technical points in the mix. It's more about reflecting on the album in the context of "Does it feel good, and do you get excited when you hear it?" The answer, in these cases, is "yes." I guess the magic was there when we put the records together, and that magic still comes across in the mixes 30 years down the road. EQ

The White Truck's 24-input/ 8-bus DiMideo console.

HEWITT'S ROCKING MOBILE RIG

David Hewitt—the Grammy-winning President/Chief Engineer of Remote Recording—was on the scene when Aerosmith recorded *Rocks*. Leaving the hustle and bustle of New York, the band and production team set up shop in an empty warehouse in Massachusetts, not far from Aerosmith's hometown of Boston. To track the sessions, Hewitt rolled up an entire mobile studio, and here he tells us about some of the gear he brought in to keep the sessions running smoothly.

What was the setup for *Rocks*?

The band had a rehearsal room called the Where-house—a big, insulated industrial space with unusually high ceilings. We brought the Record Plant's truck up there, which had a DeMideo console loaded with UREI 1108 modules. These were basically solid-state discrete versions of the old tube circuits UREI had made, so they sounded really good.

How many inputs did the console have?

It only had 24 inputs and eight mix busses, and tracking was a little difficult due to the limited inputs. To get around that, we also used some Ampex AM10 submixers, which were six by two. We brought the submixers in on line positions, because, even then, we started using up to 35 or 40 inputs for the band. Joey had tons of drums, Jay had room mics up, and Brad and Joe had a bunch of guitar amps all around. Every time they would add something, I'd be scrambling to find another preamp somewhere, and another way to get it in.

What tape machines did you use?

We were still doing 16 tracks at that point, and we had a pair of Ampex MM1000s—the first 16-track recorders ever produced. Those things were big and clunky, but they sounded great.

Where did you put the truck?

We actually pulled the truck right inside the Where-house from the loading dock. Everything stayed in the truck. We ran the cables out into the room, and set things up just like a live date. We had great big honking Westlake monitors that were just awful. They reached compression at like 9 o'clock, but the guys knew them well that we used them. The whole point was to make the band feel like they were just rehearsing—to catch them in their element—and that's what we did. —*Rich Tozzoli*

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FAST TRACKS FOR DYNAMITE DEMOS

Add real elements. One way to make a loop sound real is to add elements that are: Overdubbing a tambourine or handclaps can help, as can using a drum loop without cymbals and overdubbing them. The real cymbals give you more timbral latitude, as well as more mixing options.

Take advantage of drum hits. Many drum loop libraries include individual drum hits from the drums used to create the loops. This is great, as you can drag in additional hits, add off-beats and accents, change the pitch slightly of some hits to add variations, double hits for a stronger sound, and the like.

Why multitrack drum libraries are cool. Multitrack drum libraries, such as those from Discrete Drums, Sony, East-West, etc., require a little more work to apply than standard drum libraries—but the results are worth it. One of the biggest advantages is that because individual drums are on separate tracks, it's easy to add dynamics to just one sound. You can also add timbral changes, such as pulling back a bit on the snare's treble during quiet parts, then increasing it a shade when you want the part to cut a little more.

Another option involves altering the room mic track levels to complement the song. To make the sound bigger, bring up the room mics a bit; reduce them for a more intimate sound.

Furthermore, you can use a program like Drumagog to replace particular drum sounds, such as the kick or snare. Drumagog works by detecting when a drum hit occurs, then generating a trigger to play a different drum sound. Assuming separate source tracks, replacing sounds is usually easy.

Finally, you can shift track timing—lag the snare track a bit behind the beat to create a more loose, laid-back vibe, or push the snare a bit for a more insistent "feel."

Use frequency spectrum-based audio editing for drum loops. Programs like Adobe Audition and Wavelab can cut specific frequency and amplitude ranges. Use this function to remove the kick part from a loop while retaining the other drum sounds, then overdub a kick part with more variations and interest. I've also been able to remove some percussion sounds, like triangle and clave—you'd never know they were ever there.

This technique is not a panacea; it pretty much demands a dry loop, as reverb is such a diffuse sound it's hard to pin down and remove. Otherwise, this type of editing can be extremely effective.

EXPRESSIVE MELODIC LOOPS

The biggest problems with loops is that they're repetitive. That's the first clue that you're using something artificial; the second clue is people nodding off as they listen to your music.

But it doesn't have to be that way, thanks to chopping and shifting loops (Figure 6). For example, cut a 16th note from the loop's beginning, then paste it

in for the two 16th notes that precede the loop. While you're at it, draw in a level curve so they build up to the loop itself. The end result is a seductive lead-in.

You can also chop internally to the loop; for example, in one iteration of the loop, swap the 2nd and 3rd beats to add some variation. Or, "intensify" a part by chopping an eighth note hit in half, throwing away the second half, and repeating the first part twice.

Adding selective processing can also add variations. Suppose you have a pad loop; fade reverb in and out while the loop plays, and it will come alive. With percussive parts, throw on tempo-synced delay when you want to diffuse the sound more or give it more motion, then "dry it out" for a stark contrast. Making sounds brighter can also push them to the forefront, without having to change the part or level.

And if you're using loops that can respond to tempo changes, take advantage of that fact. Real music "breathes," with tempos that lead and lag slightly over time. Slowing down the tempo ever-so-slightly can help emphasize the vocals in a sensitive verse, while speeding up a little bit provides the rhythmic equivalent of modulating upward by a semitone.

FASTER *AND* BETTER: USE A CONTROL SURFACE

There's often a tradeoff between doing something faster and doing something better, but using a hardware control surface for mixing can give you both. By manipulating multiple channels simultaneously, you can create a more organic, interesting mix than doing parameter-pushing with a mouse on one track at a time—while saving time. And don't forget about automation: Using a control surface to program automation changes allows dynamically varying the drum loop levels and timbre, which can help restore some of the dynamics that are taken away by repeating a loop over and over again.

READ THE LICENSING AGREEMENT!

Because most loop libraries contain copyrighted sounds, there's usually some sort of licensing agreement. The least restrictive type licenses the sounds to the disc's purchaser for use in music production, period. On the other hand some allow unrestricted private, non-commercial use, but require compensation if you want to use the material in commercial productions. Others require clearance before usage In commercial projects, or stipulate that a particular credit be included in any accompanying printed material (such as a CD booklet or cover blurb).

In most cases, it violates the agreement to sell the physical media. This is because you are buying a license, not the sounds. It's like having a driver's license: Selling your car doesn't transfer the license to the buyer; they have to get their own. Also, agreements vary about whether you can use loops as part of "needledrop" music libraries.

PIECING TOGETHER AN ACOUSTIC PUNK CD

by Michael Molenda

I was supposed to be producing a simple little punky, folky singer/songwriter solo project with a few dashes of Ireland and Scotland thrown into the mix. But, because I wanted to incorporate enough additional textures to take listeners on a bit of a journey—rather than hearing just strummed Dobro and solo voice for 11 songs—*Bag O' Tricks* [Vagrant Records] by Ol' Cheeky Bastards (*a.k.a.* Dave Dalton of Screaming Bloody Marys fame) became somewhat of an air-traffic control challenge of managing different file formats and recording approaches.

The basics were tracked on Pro Tools HD at Tiki Town Studios in Mill Valley, California, by house engineer Tom Luekens. I wanted "pure" performances of Dalton banging away on his Dobro and singing simultaneously to capture his energy and casual "busker" style. No click tracks. No lead-vocal overdubs. No punch-ins. Just a man and his guitar documented in real time.

"When recording acoustic guitar and vocal together, I usually find it's best to use two mics with figure-8 patterns," says Luekens, who opted to track at a resolution of 96kHz (the project's low track count wouldn't stress out the CPU, and the higher resolution would better represent the nuances of Dalton's performance). "I choose a Neumann U87 for Dave's vocal, as it complemented his gravelly timbre, and I picked an AKG C-12B for the Dobro. I angled the null point of the vocal mic toward the guitar, and I angled the null point of the guitar mic toward the voice. This minimized the leakage. There was some of the pick strumming sound in the vocal mic, but not much of the body of the guitar, and the voice was almost undetectable in the guitar mic."

Dalton's Dobro also had a pickup, the output of which Luekens routed to a Radial JDI direct box, with the intention of reamping the signal later. But the McDSP's Chrome Tone plug-in he used for the rough mixes sounded so good on the DI track that no reamping was done at the final mix.

Dalton busking in Tiki Town's living room.

Luekens importing bits of madness in the control room.

"Dave played the Dobro for a few of the songs, and then he switched to a Gretsch Electromatic," explains Luekens. "I kept the same setup, but the acoustic sound of the Gretsch wasn't quite as good as the Dobro. However, the DI track more than made up for it, as the pickups on the Gretsch sound great."

During the basics sessions—which proceeded with Dalton comfortably recording in the studio's living room with his box lunch, lyrics, guitars, and wife and baby photos scattered around—Luekens launched a few standard operational practices he developed to make sessions move faster and easier.

"When I start a new track, I begin the audio recording a minimum of ten seconds into the sessions file," he says. "I do this because I can't count the number of times I've started recording a song at the beginning of the session file, and then someone wants to put on a part that leads into the song. Starting the song with some open front space saves me from having to move all of the audio and markers downstream later.

"I also organize my hard drive so that each artist has a folder at the root level of the drive. Inside the artist's folder is a session template containing tracks for everything I'll be recording during the initial tracking. If the group has drums, bass, two guitars, keys, and a scratch vocal, I put those tracks in the template with inputs and outputs, basic headphone sends, effects sends, and fader levels pre-set. Once the first song is recorded, I go back to my template, and import any fine-tuning changes I made during the tracking of the first song. This saves a lot of time opening a new session and configuring it from scratch each time. Also included in the template are blank mono and stereo audio tracks, with the headphone sends activated. That way, if I need new audio tracks, I simply duplicate as many copies of these tracks as I need, and rename them appropriately."

Studio overdubs consisted of background vocals (tracked in groups of two or four circled around a late '40s Telefunken U47), grand piano and organ (performed by *Keyboard* Associate Editor Michael Gallant), and a few electric-guitar parts. For rhythm sweetening, EBow lines, and a solo or two, I plugged a PRS SE Paul Allender Signature guitar into a Vox Berkeley (modded with a presence circuit) or an Orange Tiny Terror—both miked with a single Royer R-121 ribbon.

"The Royer R-121 is one of my usual choices for electric guitars, as it can take high-volume sources, it has a nice presence boost between 2kHz and 4kHz, and also a slight dip between 10kHz and 18kHz that takes some harshness out of close-miked amps," says Luekens. "When placed directly in front of the speaker cone [of either amp], the mic was still a bit spiky, so I moved it up above the plane of the center of the speaker, and I angled it down at not quite 45 degrees. I ran the R-121 through either a Studer D-19 mic preamp, or an old Ampex MX-35 tube mixer. The

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PIECING TOGETHER AN ACOUSTIC PUNK CD

Studer has a little more clarity, and the Ampex has a fatter, more vintage sound. From there, the signal went to an Empirical Labs Fatso Jr. compressor, and then to the ProTools interface."

Up to this point, all the audio was tracked, manipulated, and controlled by Luekens. But a withering deadline (21 days), and my desire to bring a number of different guitar players to the project (which would have prompted a studio scheduling nightmare), forced me to assemble performances recorded in various home studios by outside players. The "session cats" included myself and the other editors of *Guitar Player* magazine—Jude Gold, Matt Blackett, Darrin Fox, Art Thompson, and Barry Cleveland. The players were given rough CD-R mixes of the song they were to perform a solo on, with the only instructions being "go with the vibe." In a few instances, Dalton had requested slide or EBow parts, but, otherwise, the players were on their own.

Unfortunately, I had not made Luekens aware of this plan at the get go. Oops.

"I didn't realize other people were going to be working from my rough mixes," he says. "I had the roughs from the count-offs through the end of the songs, but I hadn't included all of the blank space from the beginning of the session files. If I knew someone would be using these mixes for recording other parts, I would have either bounced from the start of the session, or from a pre-determined point—such as the 10-, 20-, or 30- second mark. That way, I'd have a reference point for any audio I might get back. For instance, if somebody imports my audio into another program, all they have to do is put my audio files at the start of their session file—the zero mark, if you will—and record their parts as they like. When they send me their audio files, they just bounce the files from the zero mark, and I can import and drop them at my reference point to line everything up properly."

So, for most of the tracks from the *GP* editors, there were no time references. Luekens and I had to listen to the new audio, find rough sync points, drag the files to their approximate correct location, and then nudge them until they felt right with the song. Then, there was the 96kHz debacle. None of the home-studio overdubs were recorded at that resolution (most were mono WAV files at 44.1kHz or 48kHz), which meant Luekens had to

convert all outside audio using Pro Tools internal sample-rate conversion, set to "Tweak-head" (highest quality). Finally, there was the GarageBand gremlin—which compromised my home-spun guitar tracks.

"One problem that can crop up with importing audio from GarageBand is that it is very easy to export audio with the level too hot, or with panning causing the level to differ between left and right," explains Luekens. "With Mike's tracks, I split the stereo files into mono files, deleted one side, and, in many cases, I used a plug-in to drop the level by several decibels. But there was another problem—some dropouts and ticks in the audio. I could fix some of the short-duration ticks by zooming in until I could see the distortion of the waveform, and then using the pencil tool to redraw the offending part. Some were too subtle to see, so I copied and pasted a different part of the audio over them. This works especially well when there is an obvious repeating waveform. Other dropouts happened during long sustained notes or chords, and I could just snip the dropout, and slide the ring-out forward and crossfade the parts together."

THE *GUITAR PLAYER* GUEST STARS

Dalton had asked for some gritty slide on "Borstal Boys," so Darrin Fox grabbed a Big Heart glass slide, a Gibson Inspired By Elliot Easton SG, and a Reverend 5-15 1x10 combo. "I miked the amp with an Alesis/Groove Tubes FET condenser, running into a True Systems P-Solo mic preamp to GarageBand," says Fox. "But the naughty part is that I ran from the mic pre straight into my Powerbook's 1/8" input. Not exactly an audiophile signal chain, but it sounded killer, so I didn't worry about it!"

For his EBow solo on "Handbags and Gladrags," Barry Cleveland plugged his '03 PRS Custom-24 Brazilian into the distortion channel of a Rivera Venus 6, and then to a Palmer ADIG-LB direct-injection box, and a MOTU 828mkII FireWire interface routed to MOTU Digital Performer 5.13. Once recorded, the signal was slightly compressed with a Universal Audio LA-2A plug-in, and a touch of reverb was added with a Universal Audio Plate 140 plug.

"The initial takes felt a little too polite, given the punk context, so I cranked up the gain and slammed the EBow onto the strings for the first note, kept it close to the neck pickup for maximum intensity, and moved the EBow around to create harmonics on some notes," says Cleveland.

Matt Blackett took a bluegrass approach for "Ladies and Gentlemen," transforming his Babicz Identity ID-JRW-06 acoustic into a faux Dobro by using a DTAR Mama Bear set to its Tricone Resonator setting (100 percent wet). A Focusrite Saffire Pro 26 I/O preamp sent the signal to Cakewalk Sonar Producer 6 running on an HP Pavillion a1644x PC.

"I have some great mics," says Blackett, whose performance was inspired by the new Blue Highway album, "but I record almost all of my acoustic tracks through the Mama Bear. It's totally clean, direct, and simple, and I can have monitors blasting in the room as I track. So many engineers have put their Neumanns away when they hear how the Mama Bear sounds."

To get the '70s Allman Brothers by way of Jerry Garcia tone on his "Church of the Holy Spook" solos, Art Thompson plugged a '68 Gibson Les Paul Custom Black Beauty Reissue into a Bad Cat Lil' 15 head with its output routed to a Rivera SilentSister speaker-isolation cabinet (basically, an enclosed box with a guitar speaker and mic clip mounted within). The AEA R92 ribbon we plopped into the box captured a dry, throbbing overdrive that was perfect for the part.

Finally, Jude Gold ran his Fender Telecaster into a cranked-up mid-'90s Matchless Chieftain with the speakers disconnected, routing the speaker output to a Palmer PDI-03 Speaker Simulator plugged directly into Pro Tools LE via a Mbox 2 Pro. "I didn't use any effects—not even amp 'verb," says Gold. "I was kind of surprised how dry my part was on the final mix. I was asked for only a solo, but the song had huge empty spaces between each verse, so I threw in some accompaniment parts. To break things up for the solo, I started the lead using harmonics up at the 19th fret. Towards, the end of the solo, I ended up on the open low-*E* string, but really wanted to hit the low-*D* root, so I spontaneously reached over and grabbed the tuning peg and dropped the string a whole step. It sounded cool, so we went with it. I was very inspired throughout, because the song's lyrics were so edgy. I became an instant Dave Dalton fan from the moment we launched the session."

THE ROY MITCHELL-CARDENAS METHOD

by Michael Molenda

The bouyant indie-rock cavalcade that is Mute Math ricochets between synth-pop, grunge, ambient, dance, jazz, prog, and snippets of at least 56 other stylistic nuances. The musical diversity of the heady New Orleans foursome puts a fair amount of heat on bassist Roy Mitchell-Cardenas, who must glue everything together while simultaneously pushing his mate's sonic and melodic excursions. Here's how Mitchell-Cardenas—whose band is still touring behind 2006's *Mute Math* [Warner Bros.]—crafts a bass sound that serves many masters.

What are your main studio instruments?

I have two Fender Precisions—a '78 and a '70s model—a '73 Fender Telecaster Bass, and a '50s Kay upright outfitted with an EMG pickup at the end of the fretboard. The Tele Bass is almost like a synthesizer. It's really fat sounding.

How do you conceptualize your fundamental bass tone for each song?

It does depend on the specific song, of course, but my rule of thumb is that I want articulation. I'm a melodic player, so I want people to not only feel my notes, but to hear them clearly, as well. Ultimately, Mute Math is a pop-rock band that plays hooks, so from a sonic—and even a stylistic—standpoint, I stay pretty close to the Beatles and the early Police. But I'm also not into being too pure. We've used a Roland Juno-60 to put down some synth bass under the P-Bass, and I'm totally down with that.

Specifically, then, how do you construct your sound?

I like to hit it all at once, and get the tone I'm going for straight off, because the tone will affect how I play. In other words, I'd rather not layer an electric-bass tone on separate passes. I typically take a hybrid approach using a '60s Maverick 2x12 guitar combo and a passive direct box. I don't like active direct boxes because they tend to color the sound too much. I've found passive models are more transparent. I don't want to know the DI is even

LUKE SHARRETT

Roy Mitchell-Cardenas of Mute Math.

in the signal path, if you know what I mean. The DI signal should be the sound of the bass—fat, round, and warm. Then, I drive the Maverick until it starts to break up, in order to add some punch and character to the tone. Remember—it's all about boom and articulation. The amp is usually miked close with an Electro-Voice RE20. At times, I'll also use a Boss DD-5 Digital Delay to bring in some different textures. It's a bit of a strange effect for bass, but as long as you don't set the feedback too high, you can get a cool chorusing thing happening with notes flowing on top of each other.

How do you set the controls on your bass?

The volume knob is all the way up, and the tone control is at around half. I like a warmer sound from the instrument, so I back off the high end. I don't like the "clank."

Do you submix the amp and DI tracks to mono, or keep them as separate tracks?

It's usually mono—even when we add the Juno texture underneath. Like I said, I'm more comfortable hearing the final sound as it goes down. Then, I know I'm hitting something that will support the melody, as well as the overall sonic vibe of the track.

What's the blend like when—and if—you add the Juno to the mix?

I like starting with just ten percent synth bass, and then adjusting the amount to suit the song. On "Pictures" [from *Mute Math*], the Juno is pretty apparent.

Do you have a preference for recording live or overdubbing parts in the control room?

Each situation has pluses and minuses. I guess I'd prefer being in the room with Darren [King, drummer], just going for it. A lot of ideas come to life when we're just jamming. On the other hand, it also works great when I track in the control room with Paul [Meany, keyboardist/vocalist] directing things. He's the guy driving the train, after all. He's a creative guy, and he's very open.

So you don't miss the roar and boom of tracking live in those situations?

Well, I sit pretty close to the monitor speakers, and everything is up real loud. I still like to feel it [*laughs*]. I can even get feedback in there by holding the bass up to the speakers.

When you're overdubbing your parts, what exactly are you listening to?

The song may not be completely finished, of course, but there are usually some guitars, a scratch vocal, and even a bunch of parts that might not make the final mix. Sometimes, there's just a click track—although my preference is to have the final drum performance comped before I track. I try to hold out until as much of the final music is down as possible. The more music that's down, the more I can react to it, and either play along with it, or against it. The bassist's main gig is to drive and support the groove, but it's hard to get a good vibe going if you're tracking to a scratch vocal and a click track! EQ

VOCODER BASICS

by Craig Anderton

Heard any robot voices lately? Of course you have, because vocoded vocals are all over today's charts. Vocoders have been used on hits before—such as Styx's "Mr. Roboto" and Lipps Inc.'s "Funky Town"—but, today, they're just as likely to be woven into the fabric of a song (Daft Punk, Air) as being applied as a novelty effect.

A vocoder has two inputs: Instrument (the "carrier" input) and Mic (the "modulation" input). As you talk into the mic, the vocoder analyzes the frequency bands where there's energy, and opens up corresponding filters that process the carrier input. This impresses your speech characteristics onto a musical signal. Vocoders used to be expensive and rare, but now there are multiple vocoding options.

• **Standalone hardware units.** You'll find these mostly *chez* eBay. Sennheiser and Synton vocoders are prized, as is the famous Roland SVC-350. If you find one, buy it! For DIY fans, there's PAIA Electronics' 6710K 8-band vocoder kit (which I helped design).

• **Built-in vocoders.** Several keyboards—such as the Korg R3 and Radias, Roland VP-550 and JP-8080, Alesis Ion, Novation Supernova, Access Virus C, and Nord Modular—include vocoders, because they already have the sounds needed to provide the carrier input.

• **Software plug-ins.** Some programs—including Cubase, Logic, Sonar, and Reason—bundle in vocoders. However, a complication with plug-in vocoders is getting two inputs, because, until recently, the ability to sidechain a second input to provide the modulator (or carrier) was difficult to implement. Two common workarounds are to include a sound generator within the plug-in, and use the input for the mic (the approach taken by Waves' Morphoder), or to insert the plug-in in an existing audio track, and use what's on the track as the carrier (Sonar does this with Pentagon I; see Power App Alley in the 10/06 *EQ*).

Vocoder Potpourri—(clockwise from top) Reason BV512, Waves Morphoder, Apple Evoc 20.

FUNDAMENTAL SOUNDS

• **Talking instruments.** To create convincing talking-instrument effects, use a carrier signal rich in harmonics, with a complex, sustained waveform. Remember, even though a vocoder is loaded with filters, if nothing is happening in the range of a given filter, then that filter will not affect the sound. Vocoding an instrument such as flute gives very poor results. A guitar will produce acceptable vocoding, but a distorted guitar or big string pad will work best. Synthesizers generate complex sounds that are excellent candidates for vocoding.

• **Choir effects.** To obtain a convincing choir effect, call up a voice-like program (such as a pulse waveform with some low-pass filtering and moderate resonance, or sampled choirs) with a polyphonic keyboard, and use this for the carrier. Saying "la-la," "ooooh," "ahhh," and similar sounds into the mic input, while playing fairly complex chords on the synthesizer, imparts these vocal characteristics to the keyboard sound. Adding a chorus unit to the overall output can give an even stronger choir effect.

• **Backup vocals.** Having more than one singer in a song adds variety, but if you don't have another singer at a session to create call-and-response type harmonies, a vocoder might be able to do the job. Use a similar setup to the one described above for choir effects, but instead of playing chords and saying "ooohs" and "ahhhhs" to create choirs, play simpler melody or harmony lines, and speak the words for the back-up vocal. Singing the words (instead of speaking them), and mixing in some of the original mic sound creates a richer effect.

• **Crowd Chants.** Create the sound of a chanting crowd (think political rally) by using white noise as the carrier. This multiplies your voice into what sounds like dozens of voices. This technique also works for making nasty horror movie sounds, because the voice adds an organic quality, while the white noise contributes an otherworldly, ghostly component.

ADDED TWEAKS

Some vocoders let you change the number of filters (bands) used for analysis. More filters (16 and above) give higher intelligibility, whereas fewer filters create a more impressionistic sound. Also, many speech components that contribute to intelligibility are in the upper midrange and high frequencies, yet few instruments have significant amounts of energy in these parts of the frequency spectrum. Some vocoders include a provision to inject white noise (a primary component of unpitched speech sounds) into the instrument signal to allow "s" and similar sounds to appear at the output. Different vocoders handle this situation in different ways. EQ

To Do:

- ☑ Record entire band
- ☑ Program drum beats
- ☑ Comp together guitar solo
- ☑ Fix vocal pitch problems
- ☑ Tighten timing in bridge
- ☑ Add string section
- ☑ Add synth bass
- ☑ Warm tracks with VC-64
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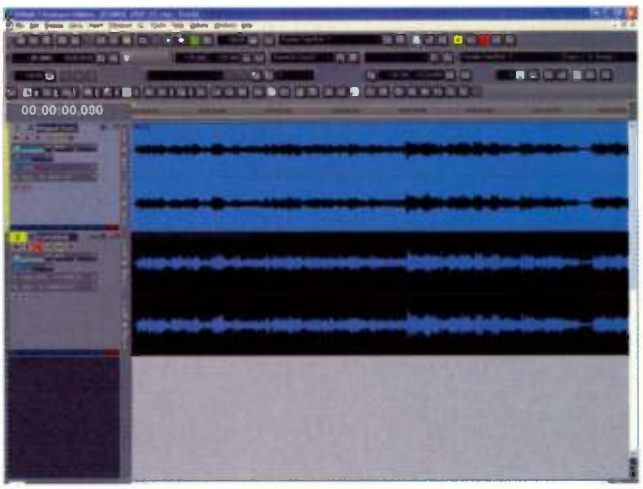
"ANALOG" TAPE FLANGING FOR DAWS

by Rocco Fortunato

I'm intrigued by anything that combines my analog background with the digital playground. I suppose high-res digital recording formats are blurring any arguments over whether CDs sound better than tape or vinyl, but my ears still tell me there's something different about iron oxide. Call it crunch. Call it saturation. Call it sweet! At the very least, it's a sonic tool that has prompted many attempts to recreate it's magic inside the digital box.

Take flanging. DAWs provide oodles of flange-like plug-ins, and we all know the trick of doubling a track and offsetting it to bend our ears a little. But only those who have heard true tape-based flanging know how sterile digital flanging is by comparison. Along with the distinctive sound of tape, the original methods for flanging depended on imperfection. Even when techniques evolved from dragging a finger on a tape reel to modulating the tape-transport speed, the key was still subtle speed variations that made the sound more organic.

So how can we achieve a flange effect that more faithfully reproduces the original analog sound with a DAW? The old method was to mix the output of two tape players playing the same sound while manually varying the speed of one. Try *that* in a DAW! However, if you happen to have a three-head tape recorder with vari-speed, why not emulate the original method?



The source material on track 1 is output to a three-head tape recorder. The tape playback head output returns to the DAW, recording on track 2. Label the new DAW track "FLANGEDUB." Because the dub will be out of sync with other project tracks, we can only listen to the track we are flanging. Others tracks (except for the flange source track) should be muted.

LET'S FLANGE

We're going to route two dubs of a track we'd like to flange through the tape recorder. The results can be output to mains, as long as you mute all other tracks, and listen only to the flange effect. (To hear the effect properly as you flange in real time, you must avoid monitoring the original track.)

• Record a dub of the stereo track (the original track) you wish to flange through the tape recorder to a new DAW track (label it "FLANGEDUB.")

• Record a second pass of the original track through the tape recorder to another new DAW track (label it "FLANGEMOD") while manually adjusting the tape recorder's speed knob. Twist to taste. The true cool of the old analog method was hands on, expressive control. Maximum effect modulation will occur fairly close to the zero delay point as you turn the knob toward and away from it. You'll hear the zero point when you pass through it. What does it sound like? Just listen.

• When you are jazzed with the result, slip-align the flange tracks back in time with your original track.

A cool aspect of this whole flanging thing is how open it is to experimentation. Consider placing the FLANGEDUB track 180 degrees out-of-phase during the FLANGEMOD pass to discover its effect. Listen especially for the magic zero point where there is no delay, and cancellation occurs. Passing through this point so smoothly is not possible in DAW flange emulations. Try different signal routings. Add a *third* original track

The source is recorded again through the tape machine to track 3 ("FLANGEMOD"). This time, the tape transport speed is varied to taste. If you are listening to track 2 and 3 through a zero-latency monitor scheme, you can hear the flange effect in real time, which offers hands-on creative control over the effect.

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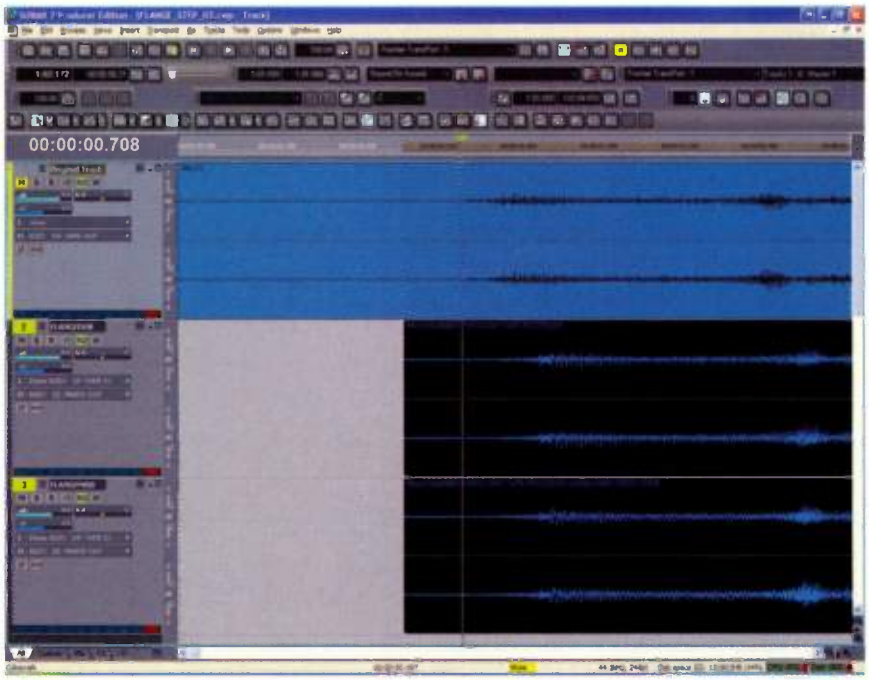
ANALOG TAPE FLANGING FOR DAW



Here we can graphically see the delay caused by the record-to-playback tape path. The flange-pair of tracks must be realigned to the original in order to hear the effect along with other tracks in the project. It's possible to pre-align the original before flanging if you have a reliable pre-measure for your tape head delay.

Here, the flange tracks are aligned with the original track.

tape dub, and vary its delay. Don't be afraid to make mistakes. The whole flange idea came from someone's mistake a long time ago—a happy accident.

THE MONITORING DILEMMA

Bummer. Why can't you listen to other tracks in the mix while you're flanging? It's the delay problem. Try making a cloned copy of the original material you are attempting to flange. Mute the original. Slide the cloned copy left by a predetermined measure to compensate for the tape-head delay. By doing this in advance, you can use the time-adjusted bounce copy as your original while making flange track passes that are in sync with the project. Be careful with your routing, though. More tracks to monitor makes the operation more complicated. If you use the "DAW-to-Analog" trick often enough, it might be worth setting up a dedicated audio interface I/O pair to the tape recorder. Patch bay, anyone?

A REEL LIFE SUGGESTION

Many *EQ* readers may not have a reel-to-reel analog recorder to use. Consider cassettes. TASCAM (and other manufacturers) made high-quality cassette 2-track decks, as well as multitrack units with three heads and vari-speed. The prevalence of current digital recorders has driven the price of these used units way down. I have a sweet TASCAM cassette 8-track. If I record one stereo source to all eight tracks at once (four left and four right), I get pseudo 1/8" half-track. Okay—*almost*. But I do get added iron oxide real estate. I do hear some benefit (more saturation?) from the same signal on multiple tracks, but the real point is how to make best use of any old analog gear you happen to have lying around.

To help preserve the fidelity of the original track when using cassette bounces, you might try a time-adjusted DAW clone copy of the original track as your FLANGEDUB track, instead of a tape-recorder dub. There might be some differences in the resulting sound, as the FLANGEMOD track will not have exactly equal frequencies after passing through the tape medium. But the unpredictability will be consistent with the original discovery of flanging in the first place that resulted in weird, but friendly collisions of unequal phase. And we all have weird friends, right? EQ

CHEAT SHEET

COMPUTER AUDIO INTERFACES

by Craig Anderton

Cheat Sheet delivers concise, explicit information on specific recording/audio-related subjects. This installment describes audio interface features.

ZERO-LATENCY MONITORING

Passing a signal through a computer results in some delay ("latency"), so monitoring a signal at the computer's output will be delayed compared to real time. An interface with zero-latency monitoring can monitor the signal going *into* the computer, thus avoiding latency. However, you will not hear any processing added by plug-ins inserted in the computer.

MIXER APPLICATION

Many interfaces include a software mixer application for routing signals within the interface itself, and between the interface and any hardware connections to the "outside world." This is also where you'd likely set up zero-latency monitoring.

SOUNDCARD LATENCY INACCURACIES

Soundcards report their latency to the host program, which displays this figure. However, note that some interfaces give the latency of a signal going into the computer ("one-way latency"), while others report the "round-trip" latency—in *and* out. Furthermore, some audio interfaces do not report latency accurately, and might be off by dozens or even hundreds of samples.

SAMPLE RATES

Almost all interfaces support 44.1/48kHz and most add 88.2/96kHz support. 176.4/192kHz are rarely used but included in some high-end interfaces. Higher sample rates can mean lower latency, but the interface may not be able to handle as many inputs simultaneously, or exhibit other limitations.

MEASURING LATENCY: MILLISECONDS VS. SAMPLES

Latency is given in milliseconds or samples. To translate samples to milliseconds, first determine a sample's length. With a 44.1kHz sampling rate, each sample is 1/44,100th of a second long—about 0.023ms. So a soundcard running at 44.1kHz with a latency of 256 samples equals a delay of 256 X 0.023ms, or about 5.8ms.

ONBOARD DSP

This usually means that the interface includes digital signal processing, such as dynamics control, EQ, or reverb. These processors do not require any CPU power from your computer, and can often process the signal(s) being recorded on their way into the interface.

DRIVERS

The Mac's Core Audio is a complete audio subsystem with drivers that most audio interfaces can access. Windows interfaces often include custom drivers, but *always* check the manufacturer's website for updates. Follow any driver installation instructions exactly—some audio interfaces require installing the driver software before connecting the interface, while others require the reverse. With Windows, an interface may offer several driver choices. ASIO and kernel-streaming WDM are best, while DirectSound and MME are useable but have relatively high latency; avoid any mode that reads "emulated." For best results, use a driver that includes the name of the audio interface's manufacturer (*e.g.*, MOTU ASIO).

EXTERNAL AUDIO INTERFACES

These connect to your computer via USB 1.1, USB 2.0 (faster; important for running lots of channels, or using high sample rates), or FireWire. With FireWire, check the interface manufacturer's website to make sure your computer's FireWire chip set is compatible (TI chip sets are popular). If there is audio interference (*e.g.*, audible clicks or pops) when other USB or FireWire devices are on the same bus, install a separate USB or FireWire card and dedicate that to audio. Caution: Most manufacturers advise against combo USB/FireWire cards.

INTERNAL CARD INTERFACES

These cards insert into a slot in your computer's motherboard, and provide slightly higher performance compared to using an external USB or FireWire box. The card's backplane (the side that faces out from the computer) will typically have numerous connectors for analog and/or digital I/O. Some cards instead have a multipin connector and a "breakout" cable with various connections. Cards must be well-engineered to avoid picking up noise from the computer.

INTERNAL CARD + EXTERNAL BOX

The internal card still does most of the work, but instead of mounting connectors on the backplane or using a breakout cable, a multiconductor cable runs from the card to an external box containing the various connectors, controls, etc. This gives the performance advantage of a card-based interface, but keeps sensitive electronics out of the computer.

INSTRUMENT INPUT

Electric instruments like guitar and bass typically lose level and high frequencies when driving a line input directly. An instrument input accommodates the needs of electric instruments. However, if you use a guitar-compatible electronic processor (multieffects, stomp box, etc.) prior to feeding the interface, an instrument input isn't necessary.

HOT-SWAPPING

Although in theory you should be able to plug/unplug FireWire and USB devices from a computer while the power to either or both is turned on, there have been isolated reports of motherboards failing from having powered-up peripherals plugged into them. It's prudent to make connections to peripherals with both the computer and peripheral powered-down.

POWER ISSUES

A *bus-powered* interface can receive its power from the voltages provided at a FireWire or USB port. However, not all ports can deliver enough current for all interfaces, so you may need to use an external adapter. FireWire devices with 4-pin connectors do not receive a supply voltage, and require an external adapter.

+48V PHANTOM POWER

Not all interfaces generate a full +48V (some produce considerably less). While this usually isn't a concern, if a condenser mic requiring phantom power doesn't work properly with an interface, check the phantom power voltage at the mic's XLR connector with a voltmeter. EQ

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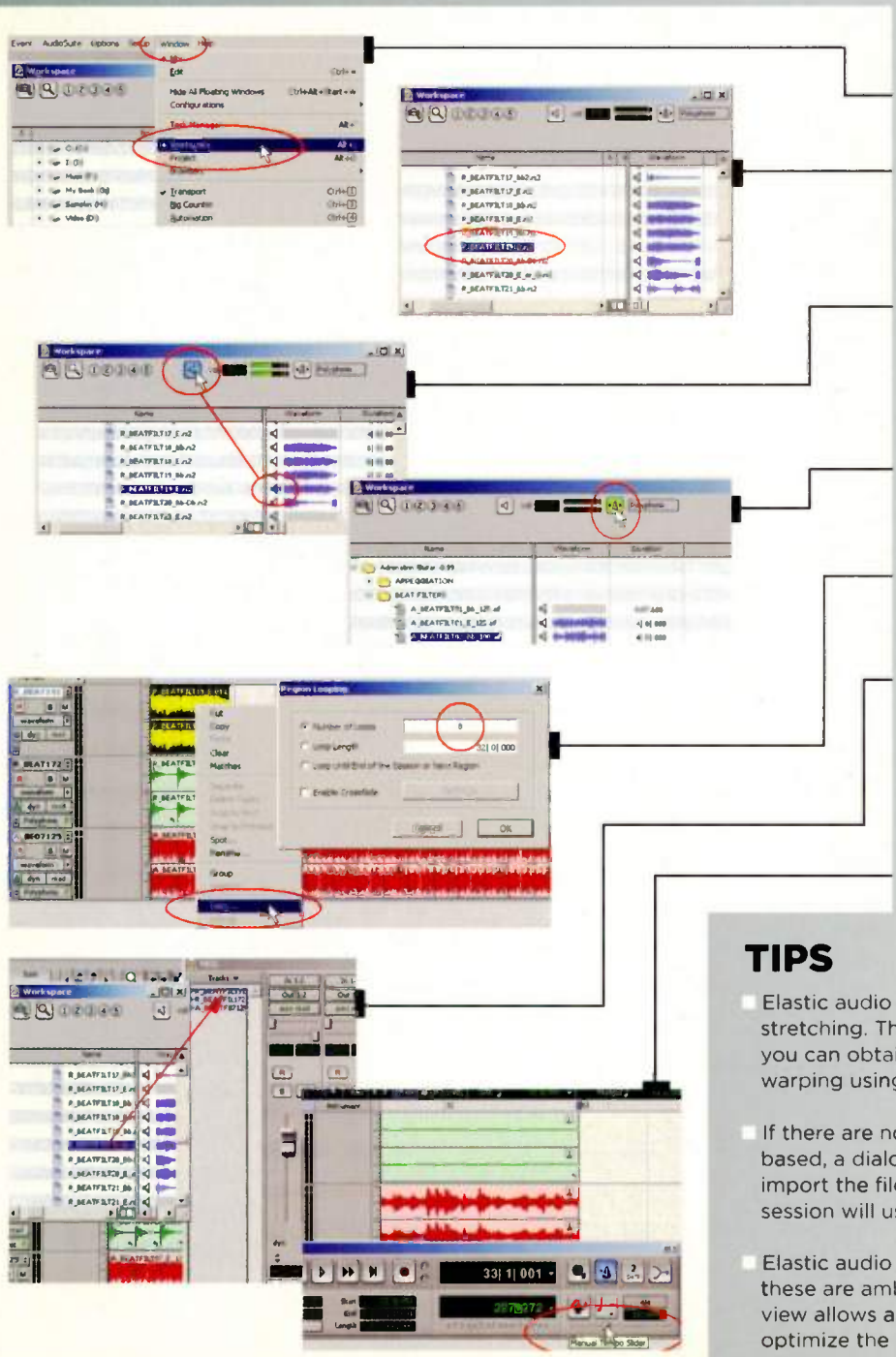
BY CRAIG ANDERTON

DIGIDESIGN PRO TOOLS LE 7.4

Do loop-based, time-stretched music with Pro Tools

OBJECTIVE: Use loops of varying tempos within a single Pro Tools project, at a consistent (or changing) tempo.
BACKGROUND: Pro Tools 7.4 introduces "elastic audio" capabilities to provide sophisticated stretching options for loop-based music. This example shows a very basic application that integrates loops of varying tempos within a Pro Tools project.



STEPS

1. With a Pro Tools project open, go Window > Workspace.

2. Navigate to the loop you want to use in the project (AIF, WAV, RX2 . . . it doesn't matter). If needed, click on a folder's + sign to expand it.

3. Click on the Preview button (the speaker icon, either the one toward the top of the window, or under the "Waveform" column) to audition the loop at its native tempo.

4. Click the "Conform to Tempo" button to hear the loop at the current project tempo.

5. Drag the file into the Track List. A track appears in the Edit and Mix windows that contains the loop.

6. Right-click on the loop, choose Loop and you can specify the number of loop iterations. (This isn't necessary to conform the loop to tempo, but an optional step if you want multiple loop iterations.)

7. If you change the tempo, the loop will conform to the selected tempo.

TIPS

- Elastic audio can do far more than just simple time-stretching. This example shows automatic warping, but you can obtain even more detailed control with manual warping using the Warp Track view.
- If there are no tracks in the session, and the file is tick-based, a dialog box will appear asking if you want to import the file's tempo. If you answer "Don't Import," the session will use the existing session tempo.
- Elastic audio analysis is based on finding transients. If these are ambiguous (*e.g.*, a string pad), an Analysis view allows adding or removing transient markers to optimize the stretching process.

LINE 6 TONEPORT UX8

Line 6's Interface Line Goes Upscale

by Jeff Anderson

Line 6's TonePort UX8.

According to Line 6's website, "The TonePort UX8 is the ideal multi I/O recording interface for project and pro studios." So much for modesty, eh? Being a pro studio owner, my experience is that my peers are pretty set in their ways, but I decided to keep an open mind and try what I thought was "just another home studio toy" on some real (read: major label) sessions. And I'm glad I did, because it ended up saving my butt . . . but I'm getting ahead of myself.

OVERVIEW

The TonePort UX8 is a 2U rackmount USB 2.0 interface that records eight channels at up to 24-bit/96kHz. It offers eight XLR ins with dedicated mic pres, eight 1/4" line ins, two front-panel 1/4" instrument jacks, eight 1/4" line-level balanced outs, two headphone jacks, and stereo RCA S/PDIF digital I/O. It applies +48V phantom power in two groups (channels 1–4 and 5–8); each preamp has a 20dB pad, low-cut filter, and gain control.

Perhaps the UX8's most attractive feature is the inclusion of Line 6's celebrated GearBox software. This program offers a wide variety of processors, including 18 guitar amps, 24 guitar cabs, five bass amps and cabs, six mic pre models, and 30 stomp box and studio effects. These virtual tools work as a standalone program or integrated with your DAW as RTAS, VST, and AU plug-ins.

IN USE

My first run with the UX8 was during a session where our console was on the fritz. Long story short: The phantom power on my DDA DCM 224V console is accessible only by a computer in its master section. This is the worst design that I have ever seen, considering that the computer crashes monthly, leaving me to rely only on outboard preamps. And, one day that the computer went down, I had a large jazz group scheduled that required 29 inputs in order to track live.

The UX8 showed up that day, so I pulled it right out of the box and dropped it into my rack. To my surprise, the unit worked as eight standalone pres. This was a godsend; I hooked the UX8 through my patchbay, and made it through the session. First impression: Maybe the pres weren't mindblowing, but they were certainly clean and accurate enough to save a session.

A few days later, I decided to dig deeper. I hooked the UX8 up to my Mac G5, installed the software, and—*it worked perfectly.* This *never* happens; I always make sure that I have at least a day to spare, cursing and screaming, before any hardware piece that requires software passes a tone.

The GearBox software is very user-friendly, even though I hadn't used it before. I spent the day auditioning heads, cabs, and effects, and was very impressed—the program gets pretty deep, making it easy to develop custom user banks.

The only downside: GearBox can process a maximum of two inputs simultaneously (the other six inputs will serve only as mic pres or line ins). However, if you want to use modeling with the additional tracks, as a workaround, Line 6 includes the GearBox plug-In which can be used with the individual tracks you record in your DAW.

For all the front and back panel jacks and digital I/O, the UX8 can do only eight channels in/eight channels out at any given time. This might be limiting if you're trying to use the UX8 as your only pre on, say, Terry Bozzio's drum kit, but for the price the unit is an incredible value.

Throughout the next couple months, I used the UX8 on a ton of sessions. It's a great piece for getting final tones (you can record with the effects applied in real time, with no noticeable latency), or re-amping signals "in the box." During mixing projects, I also relied a lot on the GearBox RTAS plug-ins with my Pro Tools rig. Note to prospective users: Just because it's from Line 6 doesn't mean it's solely for guitarists. I used these plugs on everything from drums to vocals and, by and large, they sounded really pro.

CONCLUSIONS

For the low entry price, the UX8 really can't be beat. Other eight-channel interfaces are likely to cost you a lot more, but are unlikely to offer GearBox's cool tone modeling options—and if your computer isn't powerful enough to run lots of plug-ins, record the processed sound in real time using the ToneDirect monitoring function.

Bottom line: This is a great tool, whether you're a hobbyist or pro. Given what amp modeling software costs by itself, I can't see why anybody wouldn't just go the extra couple bucks and get eight decent pres too. After all, you can *always* use more ins! EQ

PRODUCT TYPE: Eight-channel USB 2.0 interface with exceptional tone modeling software.
TARGET MARKET: Recording musicians in any type of studio environment.
STRENGTHS: Lots of sound options. Painless installation. Software works as standalone or as plug-ins. Real bang-for-buck value. Well-constructed.
LIMITATIONS: Maximum eight I/Os at one time. No MIDI interface.
LIST PRICE: $699.99
CONTACT: www.line6.com

STUDIO PROJECTS CS5

Tell Me You'll Always Be True

by Jeff Anderson

Call me crazy, but I describe my mics in an anthropomorphic fashion. When asked how a mic sounds, I'll say that my AKG C 12 is warm and sexy, exaggerated and incredibly outgoing, whereas my Neumann U89 is a bit more reserved and conservative. I think you know what I'm talking about; in fact, I bet you tell your bandmates something similar when they ask you why you are putting *that* particular mic on their instrument.

When I was sent Studio Projects' new CS5, I was eager to get to know her, to find out if she had a unique personality. Would she be sultry like a C 12, prissy like a U89, or kind of haggard and raspy-sounding, like the older gal a few barstools over? Time to find out.

OVERVIEW

Sporting serious curves (such as a 27mm wide capsule), the Studio Projects CS5 is at home at just about any party (she switches between five polar patterns: cardioid, wide cardioid, hypercardioid, omni, and figure 8, and has rolloff pads that can attenuate the signal by -5, -10, -15, or -20dB, allowing the mic to handle up to 156dB SPL). In her time, she's heard it all (her frequency response is between 20Hz and 20kHz), and she can cut through the BS with a lowpass filter that can be engaged at 3, 5, 7, or 15kHz and a high pass filter that can be applied at 50, 75, and 300Hz—both at 6dB/octave. And while she has a bit of baggage—a pretty sturdy flight case and a shock mount—it's the good type. Want to learn more? Check out her personal ad at www.studioprojects.com.

IN USE

On our first date, I thought that the CS5 would hit it off well with a singer I was scheduled to track—a female contemporary artist seeking a pure, clean sound. She has a natural warmth to her voice and wasn't looking for any additional coloration, so I set her up with the CS5, in cardioid pattern, with no filters or pads engaged.

The vocalist wanted to track with the rest of her band, so I put her and the CS5 in the live room, surrounded by gobos, and sent the signal into a Focusrite Voice-Master Pro, patched into a Teletronix LA-2 (set to -2dB), recording into Pro Tools. In this rather straightforward application, the CS5 imparted a pretty honest sound, though the high end did seem a tad boosted. However, in this instance, this was a good thing as we didn't have to EQ the track at all when mixing.

Studio Projects CS5.

Before I commit to a relationship with a mic, it's important that it gets along with my close friends, so I invited a male vocalist over that I had worked with for years. He can be tough on mics, as his voice is really boomy and a little shrill in the high end. It was clear that the CS5 was going to have to make the first move if the session was going to work, so I engaged the low and high pass filters at 300Hz and 7kHz respectively—bingo.

Just to see how worldly she was, I invited a guitarist over who plays this terrible guitar that I swear was purchased out of a Sears catalog. I consider this guitar the instrumental equivalent to the drunken, obnoxious friend that your wife can't stand, but since you've known him since high school you still invite him over for the Super Bowl. Expecting disaster, I placed the CS5 about 2" off of the sound hole, using the wide cardioid pattern, and brought a Shure SM81 along (set up over the bridge), because that's the only mic that's ever liked this guitar. I used a No Toasters Nice Pair preamp to power the CS5, and sent the signal straight to Pro Tools. With the first strum, it became obvious that the CS5 was not going to get along with the source, despite our best efforts. Lesson learned: What goes in comes out . . . including with the CS5.

CONCLUSIONS

While the CS5, due to her range of features, is very versatile and can hold her own on nearly every session, she's also brutally honest. I appreciate that quality in a mic. As long as you have a good source, you'll get a good sound with the CS5, which is preferable to spending tons of time trying to "alter" a track so that it sounds like the player intended it to sound. In short, she gives what she gets; so if you or your instrument suck, you're probably not going to get along with the CS5. But if you have a good sound, you might just find her to be the perfect date. EQ

PRODUCT TYPE: Multi-pattern condenser mic.
TARGET MARKET: Project recording studios looking for a single condenser that works well in multiple applications.
STRENGTHS: Exceptionally versatile due to tons of options. Accurate sound. Inviting price point. Good accessorizing.
LIMITATIONS: Nothing significant.
LIST PRICE: $1,149.99
CONTACT: www.studioprojects.com

ART TUBEFIRE 8

It Promises Warmth and Transparency—but Does It Deliver?

ART TubeFire 8.

by Kris Force

ART's TubeFire 8 embodies eight channels of second-generation vacuum tube mic preamps in a single rack space. Stylistically conscious, the TubeFire 8 boasts an attractive brushed black metallic face with hardy dials, accented with petite orange and chartreuse LEDs. Furthermore, the TubeFire 8 combines an A/D-D/A converter with FireWire connectivity for your Mac or PC—all for $629 list. Seems like ART is undercutting the competition, but are they sacrificing quality?

WHAT'S THE SKINNY?

The TubeFire 8 includes eight balanced, combo XLR/TRS 1/4" rear panel inputs. On the front, each channel includes a 70dB input gain control, -10dB pad, 100Hz/-6dB low cut filter, 180-degree phase reverse switch, output control, and LED metering. The first two channels include high-impedance TS instrument inputs; the channel gain control adjusts both mic and instrument, as plugging in an instrument overrides the mic preamp. The eight mic pres can work inline, as each channel has its own low impedance TRS 1/4" rear-panel output jack. The back panel also has a master output level switch (+4/-10dB) for easy integration with both pro and consumer environments.

Phantom +48V is on two grouped channel switches (1-4 and 5-8). My only concern is whether these groupings might pose a limitation if you want to record with a number of different mics having different power requirements.

Output source switches for headphone or stereo out monitoring are paired (1-2, 3-4 and so forth). Once channels are selected for monitoring, these toggle between D/A and preamp outs. You can avoid monitoring latency altogether by selecting the preamp switch in combination with the designated channels. If D/A monitoring is selected, the software control panel adjusts latency.

Initially, the headphone/line out mixer functionality was counter-intuitive. The headphone out corresponds to the paired channel selection in combination with the D/A or preamp switches, and every permutation thereof. The signal is muted at 12 o'clock on the dial; turning to the left gives a mono mix and turning to the right, a stereo mix. In stereo, odd-numbered channels are panned hard left while even-numbered channels are panned hard right.

Combining functions such as phantom +48V and output monitoring conserve valuable front-panel real estate, yet increase the learning curve and require more forethought in signal routing. However, the immediate ease of use, and satisfaction with other features, outweigh any limitations.

HELLO DAW-LING

The TubeFire 8's crowning feature is the silky-smooth, class-A vacuum tube preamps. Warm, quiet, and present, these eight pres offer precision and clarity. Kudos to the engineers who developed this piece; these pres achieve a remarkable transparency that is normally accompanied by a much higher price tag.

Furthermore, the TubeFire 8 is also a high-quality A/D converter with FireWire connectivity and sample rates from 44.1kHz to 96kHz (as displayed on the face, and changed through the software or control panel). And it comes bundled with Cubase LE4.

Out of the box, the TubeFire 8 is plug-and-play. Installing the drivers on both PC and Mac is simple; I was ready to record with this piece within minutes of removing the wrap. Words cannot express how satisfying this is after having spent hours setting up project recording environments with no added value over the TubeFire 8. The accompanying manual was so anti-IKEA I was in shock: I really appreciated the straight, simple instructions, replete with workflow tips and suggestions for achieving the lowest noise levels.

Perhaps the best feature is that you can chain multiple TubeFire 8s, as each unit has two interchangeable In and Thru FireWire ports. Word clock input and thru BNC jacks are provided to sync the TubeFire 8 externally to a master clock source. Whether serving as a mic pre and/or I/O, the TubeFire 8 effortlessly accommodates a pro or project environment.

THE FINAL ANALYSIS

On my test drive, the ART TubeFire 8 continued a smooth and level course all the way to the end of the journey—and back again. Attractive yet rugged, warm yet clear, the TubeFire 8 can serve as the core of any recording environment or a welcome addition. All in all, this is a fine piece of equipment that's well worth the modest sticker price. EQ

PRODUCT TYPE: Mic preamp and I/O with A/D-D/A converter.
TARGET MARKET: Pro and project recording studios.
STRENGTHS: High quality pres. Inviting price point. Can daisy-chain multiple units. Great documentation.
LIMITATIONS. Hefty weight makes for a less-than-ideal traveling companion. Best used as a permanently racked unit.
LIST PRICE: $629
CONTACT: www.artproaudio.com

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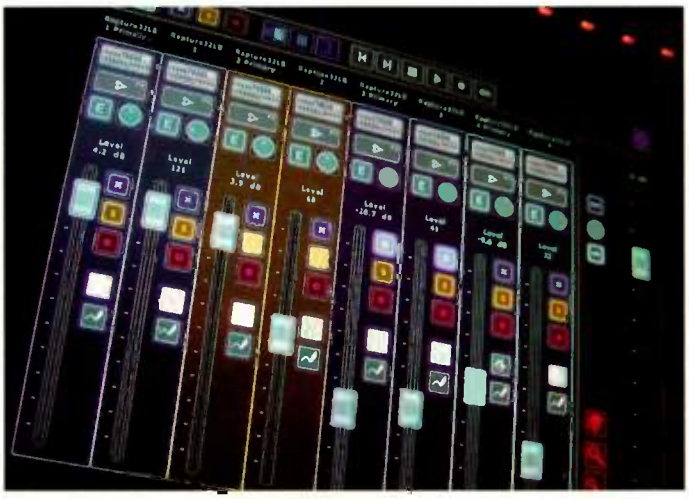
JAZZMUTANT DEXTER

Can a Controller Have Sex Appeal? Yes.

by Craig Anderton



Dexter is one gorgeous controller—no doubt about it.

With the power off, Dexter looks like a giant Etch-A-Sketch. But power it up, and you're staring at a controller with exceptional aesthetics—to say that Dexter is visually stunning is an understatement. But what about mixing?

INTO THE ETHER

Dexter connects to your computer via Ethernet, either directly or as part of a network. I installed the software, plugged it in, told Sonar 7 the control surface existed, and was tweaking parameters in minutes—simple. Currently, Dexter has templates for Cubase 4 (Mac/Windows), Logic 7.2 (requires installing a small applet), and Nuendo/ Sonar on Windows. The company is sketchy about when, and which, additional programs will be supported.

For now, users of other programs are better off with Jazzmutant's Lemur controller, which is based on the same multitouch technology and costs less, but is more complex to customize for your needs. While Dexter users can download the free dual-mode software that allows booting into Lemur or Dexter mode, curiously, Lemur owners must fork over $400 for this option—not exactly a way to reward early adopters. Still, it proves that Jazzmutant continues to develop the product line.

USING DEXTER

Jazzmutant gets huge props for making Dexter so easy to figure out. Everything is obvious, whether you're adjusting EQ, choosing different banks of faders, seeing an entire channel's parameters at a glance, tweaking effects, or taking advantage of the amazing surround mixing capabilities. The manual could be clearer—I wasn't always certain which button would get me where I wanted to go—but this isn't problematic, as a few minutes spent playing with Dexter reveals all.

The 800 x 600 touch screen is gorgeous, and you can manipulate as many controls as your fingers can reach simultaneously. The touch action is predictable, and the housing is a confidence-inspiring metal case. The name strip pulls track names from your DAW, so you always know where you are. Although not all parameters are represented—for example, in Sonar you still need to set aux send pre/post individually—it doesn't take long to learn Dexter well enough to fly on it.

Although some have said that Dexter can't control soft synths, that's not quite true. Sonar allows inserting soft synths as if they were effects, and Dexter "sees" the instrument parameters. But if you use Sonar's "insert" command for soft synths, Dexter doesn't see the instrument. One great addition, though, would be a touch-sensitive keyboard mode where sliding along notes could generate controller or aftertouch messages. Granted, Dexter isn't meant to be a keyboard—but this technology seems well-suited to making a keyboard that's more expressive than the standard mechanical type.

CONCLUSIONS

Overall, Dexter is exceptionally ergonomic. But there are some warning flags: The limited DAW support, coupled with no HUI or Mackie emulation, limits the potential market—which could impact future levels of support. Of course, the dual-mode option lets you create a customized Lemur surface, but one reason Dexter exists is because many people found Lemur daunting.

Then there's the expense. This must have cost a ton to develop, and I'd bet a multitouch screen isn't cheap. For the same price, you could get the Euphonix Artist Series controllers (and have enough left over for a couple nice mics); some might actually prefer the hands-on feel of motorized faders—although they make noise, and Dexter is totally silent. Dexter is easier to install and shows more at a glance, but Euphonix uses the EuCon protocol, which has some distinct advantages when using multiple programs . . . actually, they're quite different products, even though they ostensibly handle similar functionality.

If I had a spare $3K, I'd spring for Dexter in a heartbeat because I use Sonar so much, as well as Cubase. And frankly, Dexter is a work of art where just turning it on is inspiring. Bottom line: Jazzmutant has come up with a groundbreaking product—but it's priced accordingly. EQ

PRODUCT TYPE: Control surface for DAW control or hang it on your wall and call it art.
TARGET MARKET: Those who want not only a controller, but are willing to spend big bucks for awe-inspiring industrial design.
STRENGTHS: Gorgeous, inspiring interface. Superb ergonomics. Easy installation. Controls effects as well as mix, pan, aux, etc. Ethernet doesn't tie up FireWire/USB/MIDI ports.
LIMITATIONS: Supports only a few DAWs, with no HUI or Mackie Control emulation. Limited ability to program soft synths. Costly.
LIST PRICE: $3,399
CONTACT: www.jazzmutant.com

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MCDSP EMERALD PACK NATIVE

A Bundle of Joy

by Garrett Haines

With so many great DAW options out there, I've been tempted to switch from mixing in Pro Tools. But every time I tense to jump, I realize I would lose all my native plugs, so I've stayed put. Now, with the McDSP Emerald Pack Native, I find myself in even more of a pickle. What's so special about this suite that it keeps me from buying Logic, you ask? I'll tell you.

OVERVIEW

The McDSP Emerald Pack Native covers a lot of ground. Packaged with a printed manual and a pre-programmed green iLok key, the bundle comes complete with McDSP's Analog Channel, Channel G, Chrome Tone, CompressorBank, FilterBank, MC2000, ML4000, Revolver, and Synthesizer One. To make matters more interesting, several titles play host to multi-application configurations within their specific plug-in. If you want the full spec rundown, shoot on over to www.mcdsp.com.

ANALOG CHANNEL

The Analog Channel actually has two channels: AC1 emulates a Class-A gain stage, and AC2 emulates popular tape machines. My first impression is that the AC1 is simply killer on a mix bus—especially the Channel 1 preset. I almost hear some SSL love with this puppy.

One of my favorite applications for the AC1 is to use it as a clip remover for tracks that were recorded a touch too hot. Simply select an attack speed that is fast enough to catch the offending transient, and the AC1 will smooth things out and make the event sound more like analog distortion than digital lightning.

In addition to sounding good, the AC2 is a veritable see-and-do classroom for analog tape enthusiasts. Parameters such as bias, playback speed, and alignment equalization are included. You can even pick different tape formulations. A small display window shows the frequency response for each model, making it easy to see how giants such as Studer, MCI, Ampex, and Otari earned reputations for their individual sounds.

Channel G's five-band EQ/Filter section.

FILTERBANK

FilterBank is comprised of 10 plugs, from filters to shelving circuits to parametric EQs. To organize this array, FilterBank is divided into four series: B-Series (band pass and stop filters), F-Series (high- and low-cut filters), P-Series (parametric EQs), and E-Series (shelving EQs).

Of course, features such as gain and Q width are here, but the hidden power of FilterBank lies in its peak, slope, and dip controls. The peak function lets you tailor the transition from shelved to non-shelved frequencies, while slope/dip lets you adjust the over/undershoot of the shelf. So, in addition to your daily EQ tasks, you can coax some of the wildest and unexpected non-symmetrical curves out of FilterBank. This is great for carving out the sonic interplay between bass guitar and kick drum, or for harmonic notching of synth tracks.

COMPRESSORBANK AND MC2000

In the CompressorBank plug-in, almost every major compressor topology is covered. In simplest terms, we're talking about detection circuit, knee/curve shape, side chain, and pre/post EQ. In the real world, each of these areas represents a crucial design decision, as the choice of approach and materials significantly affects the final sound of the compressor. Again, McDSP lets you lift the hood and see the internal workings of different compression designs. I'm not ashamed to admit I've sat with CompressorBank to woodshed my compression skills (and, in the process, created my ideal Franken-Compressor).

For audio production, CB1 is the basic unit, giving control over standard compression factors such as threshold and ratio, while bringing the McDSP's multiple peak-detection circuits to the party. CB2 adds a pre-filter, and CB3 adds a static/dynamic EQ to the features of the CB2. Finally, CB4 provides a large set of McDSP-tweaked emulations of many popular compressors, including vintage and current favorites.

Pay extra attention to the side chain area. The key function lets you pick what signal is used to trigger the compressor, and the key listen button lets you hear the exact feed the compressor will use to do its work. This is the foundation to de-essing, frequency dependent compression, and other clean-up tasks. Instead of slapping a wide-band across an entire spectrum, use the smallest tool required for the task. In short time, you'll start to hear a major improvement in the quality of your mixes. These are the kind of things that separate the pros from the weekend warriors. Should you require more than one compression band, the MC2000 is the multi-band version of the CompressorBank.

CHROME TONE

Chrome Tone is a guitar amp factory, providing amp modeling and effects. Changing tone and speaker settings is straightforward. Chrome Tone is fine in this area—especially on the distorted stack sounds—but it really shines as an effects unit. From mangling drum loops to flanging the whole drum bus, it's all good with the Chrome Tone. In fact, try Chrome Tone on vocals and keys. Pull up a blues break-up box, and add some grit to that virtual instrument track, or make your voice sound like it is in a collapsing hole. On slow bass-guitar lines, pull up a really clean amp, and add the slightest hint of chorus for a thick, fretless feel.

REVOLVER

If you think you need a full-blown TDM system to power a convolution reverb, it's time to reconsider. Revolver handles the job perfectly, and it comes with a massive profile library that includes halls, plates, and rooms, but also some really off-the-beaten path spaces (staircases, a water bottle, a vacuum tube, etc.). Users can also capture and import their own impulse files.

Revolver has some convincing room spaces—especially for drawn-out operatic aria work—and it sounds great on techno tracks. In addition to spaces and plates, I liked many of the hardware files (especially the Eventide DSP4500 and T.C. M5000), but I was less impressed with the EMT 250 settings.

While it may be efficient, Revolver is a computational beast. Even with a new Intel Mac, we had to do some tweaking to get the most out of our CPUs. Fortunately, the tweaking windows are here. I suggest setting latency to low, and printing the reverb (recording it to an audio track, and playing it back instead of making the plug-in process during each play), or moving to medium latency. Depending on your source mix, you may be able to adjust the Tail Cut value to something like -100dB, thus freeing up CPU power. (Note: Unless it's a solitary instrument, most applications are fine at the -100dB level.) Unless you need it, try setting the stereo mode to summed stereo. This lets Revolver process a combined source instead of two independent L/R channels.

CHANNEL G

Channel G is comprised of four plug-ins: G Dynamics (a large format console dynamics section that includes an expander/gate, compressor/limiter, and filter section), G Equalizer (a five-band EQ/filter section), G Console (the console models plus a combination of the G Dynamics and G Equalizer configurations), and the G Surround Compressor for multi-channel work. Channel G emulates many of the great names in mixing desk production, including API, Amek, and SSL. The sonic character of each brand is readily apparent, as are unique topologies, such as the API feedback or feed forward compression scheme. Seriously, this is *the* bus plug-in. You can use the less CPU intensive Dynamics or Equalizer configurations if the G Console takes too much CPU power. Plug-in settings will be retained when switching to other Channel G configurations.

ML4000

The ML4000 is a high-resolution limiter designed for single or multi-band configurations. It's actually two plugs: The ML1 mastering limiter, and the ML4—a multi-band gate, expander, and compressor fed into the ML1 mastering limiter. As a wave hammer, the ML1 has a look-ahead brick wall design. Each sample is reviewed in triplicate to make sure the max output wall set by the user is not violated.

For me, the crucial controls here are Knee, Mode, and Release. Knee is the slope of the limiting onset curve, and it can range from a hard, immediate type knee to a gradual introduction to the max output. This control has a significant effect of how the limiter sounds. From transparent to pump, the starting point is here.

Mode provides five settings ranging from Clean to Crush. These determine the algorithm used—and the subsequent artifacts—of the actually peak limiting. There's no such thing as "just pushing the peaks down." How that task is accomplished can have harmonic and phase implications. Mode gives you some choices in this area. Of course, Release controls how long it takes to recover from the limiting process—too fast and you pump, too long and you put your audio in a permanent vice. The multi-band side of the ML4000 strings a bunch of ML1s together, but adds a gate and expander to the compression/limiting.

Dave Hidek—who is a mixing wizard—related to me how he used the ML4000 to save a stellar drum take from problematic mic bleed. Evidently, a cymbal was accidentally hit during a fill. The other toms were all clean, but the middle tom had the crash bleeding into the mic. Using the frequency-based gate, he was able to reduce the cymbal decay, while leaving the tom hit intact. Only someone who knew what happened would even hear it now.

Another great ML4000 use is in smoothing out clean guitar lines or background vocal takes. Setting it to skim the top can give a track the even buzz cut it needs to make things more manageable for the next plug in downstream. Finally, mix engineers who need to give client's take-home references can slap on an instance of the ML4000 on the master bus, and provide a decent approximation of a more-finished master.

SYNTHESIZER ONE

Synthesizer One is a full-featured wavetable-based synthesis engine that combines both wavetable and analog oscillators in a completely modular design—including filtering and a dedicated effects section. My favorite tweakzone on this plus is the Waveform Capture feature—an AudioSuite plug-in that can capture and import a piece of audio from your Pro Tools session. From there, it opens on the Wave Edit page, where you can edit away. I used it on some spontaneous laughing from a vocal outtake with cool results, but there's notning stopping you from using recorded drums or bass as the foundation for your new synth pad.

CONCLUSIONS

I'll keep it short and sweet—I don't know of another bundle that lets you handle almost any production task as well as McDSP EPN. If you want analog-like sound out of your Pro Tools rig, the McDSP Emerald Pack is hands down the native bundle to own. EQ

PRODUCT TYPE: RTAS and AudioSuite plug-ins for Pro Tools users running Mac OSX 10.4 or higher/ Windows XP.
TARGET MARKET: Pro Tools users looking to get great analog sounds out of their DAW.
STRENGTHS: Convincing "analog" sounds. Presets provide good sounds while parameter-tweaking options allow power users vast flexibility. Apps like Chrome Tone and FilterBank useful in both mixing and non-traditional effects applications.
LIMITATIONS: Compatible with Pro Tools only.
PRICE: $1,395 retail (Various upgrade paths are available to owners of individual McDSP plugs. Check the website for more info.)
CONTACT: www.mcdsp.com

OVERLOUD BREVERB

Convolution, Schmonvolution

by Michael Ross

I've always said, "You can't be too rich, too thin, or have too many reverbs." While the Olsen twins have made me rethink the second assertion, I stand by the third. Using different reverbs for mixing can give a strong sense of foreground and background, while positioning individual sounds in the stereo spread. Of course, good reverbs can be expensive and software versions can be CPU hogs—but that's where Breverb comes in.

With the Advanced interface mode, you can customize Breverb's sliders to reflect your most commonly-used controls.

OVERVIEW

Breverb is a plug-in modeled after "the most acclaimed hardware classics." Overloud doesn't say which ones, but I bet the name Lexicon came up somewhere. In fact, the classy GUI resembles the LARC remote control used with the legendary Lexicon 480L. Overloud's thinking is that while convolution reverbs provide realistic-sounding sources, they limit tweaking—and won't give the sounds on countless hit records made with classic hardware digital reverbs.

There are four main algorithms: Hall, Plate, Inverse, and Room, with controls for I/O levels, dry and wet amounts, and panning. In addition, you can choose presets, save your own patches, A/B sounds, and transfer modifications you come up with from A to B (or vice-versa).

Five additional pages contain more controls, and available parameters change according to the selected algorithm. The General page's knobs set the Time, Size, Diffusion, Shape, and Spread. Size acts as the usual master control for the space's apparent size; once set, Spread and Shape adjust the initial reverb envelope's duration and shape. The Predelay page contains tempo sync-able Predelay, Regeneration, Motion (modulation) and Depth controls. The Freq section offers Hi and Low frequency controls, as well as damping and a Low Cut knob; there's also an EQ page with two full parametric equalizers. A Gate section (with tempo sync-able Release) modulates Threshold, Shape, Slope, and Hold parameters.

Most of us have a few "go-to" controls. To avoid a lot of page scrolling, Breverb's Advanced interface mode adds an expanded long-throw fader pane, where you can add up to six faders. These are assignable to all the main parameters from a pull-down menu, or by dragging-and-dropping a specific parameter knob onto them.

As expected, Breverb offers full automation through host sequencers, and realtime MIDI control of most parameters through the faders and knobs.

IN USE

Breverb uses iLok protection (spoiler alert: You *will* want to take this plug-in to other studios), and installed and authorized easily. I used it in Ableton Live 7 and Pro Tools 7.4 sessions—Breverb supports AU, RTAS and VST plug-in formats.

The claims of low CPU usage are fully justified: I installed ten instances in Live, and the CPU meter read a mere 24% with the buffer at only 256 samples. Even a bona-fide reverb freak like yours truly can't conceive of using ten different reverbs on a session, but I could use even more if I wanted.

And, it *sounds* great too—Breverb gave professional, musical-sounding effects on drums, strings, guitars, shakers, handclaps, and vocals. The presets were a great place to start; Breverb's names like "A Capella Vox," "80s Percussion Space," and "Alt Guitar Space" are a great improvement over the often obscure, abstract musings of some manufacturer presets.

Long tails were distortion-free, and at extremely wet settings you can tame any digital graininess (this is, after all, a model and not a recorded sample) with the impressive EQ options. Smaller halls and rooms, and even larger spaces mixed into the track, sound so natural you might mistake them as being generated by convolution techniques.

Many of the sounds explicitly recalled the ambient character of past (and present) radio hits, by everyone from Journey to Madonna. Syncing the Gate to the host's tempo instantly summoned up the ghost of Phil Collins past, while the Inverse ("reverse") algorithm conjured up some awesome sounds of the future.

CONCLUSIONS

Breverb will let you hear gorgeous plates and luscious halls even during the recording process, when you have to keep the buffer low to minimize latency. If, like me, you love the added emotional resonance that the right reverb can add to a track, but get frustrated when your software reverbs start eating up precious CPU, Breverb is a must-have—while offering classic sounds that are difficult to obtain otherwise. EQ

PRODUCT TYPE: Reverb plug-in that models classic hardware units.
TARGET MARKET: Fans of hardware reverbs looking for a CPU-friendly software solution.
STRENGTHS: Rich, musical reverbs. Low CPU usage. Easy to use.
LIMITATIONS: Not for convolution reverb lovers.
LIST PRICE: $399
CONTACT: www.ilio.com, www.overloud.com

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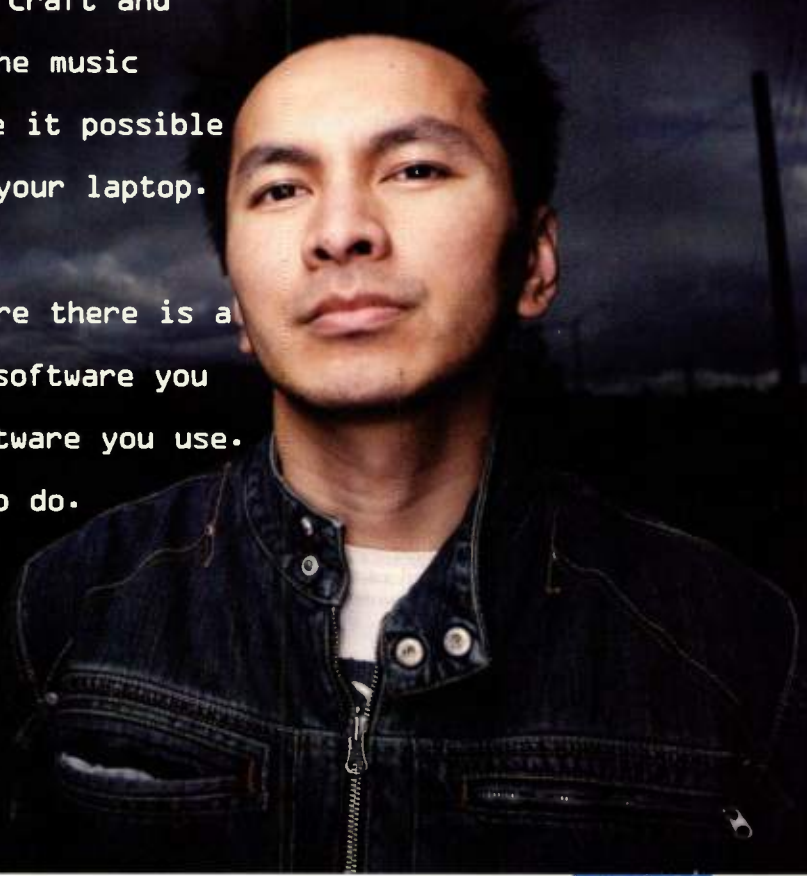

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THREE NEW MONITORS FOR THREE DIFFERENT STUDIOS

Whether you have an entire basement devoted to your full-fledged project studio, are working out of a little one room suite, or are mixing your tracks in the corner of the bedroom while your better half sleeps, we have three brand spanking new monitors that might just work for you.

KRK Systems Exposé E8Bs
($5,000, www.krksystems.com)

KRK has generated quite a buzz among home studio owners with their Rokit and VXT lines, the latter of which was given a thorough series of tests in the December '07 issue of *EQ*. But we had to see what their newest pro product, the Exposé E8B, was all about ... so we ordered two up.

With features such as a one-inch beryllium/aluminum tweeter (for extended high range frequency performance and enhanced transient response), a multilayered Kevlar/Rohacell woofer (for accurate low-end reproduction) and dual discrete class A/AB amps, it's easy to see why the Exposé E8B costs the pretty pennies it does. The components are all high quality, and the design—what with the non-parallel, internal walls that ensure that no wave is left standing and all—is superb. Additionally, the monitors have radiused curved edges that reduce diffraction (this occurs when sound waves hit a square edge of the cabinet). They are supposed to perform pretty well to boot, or so the one sheet says.

I lugged these 40-pound monsters up to my console, stabilizing the speakers with a pair of Auralex MoPADs to isolate the monitors from the console surface (you gotta decouple), and then ran a mix through my Dangerous Music Monitor ST/SR into the input of the Exposé E8Bs. The good news: The monitors were pretty clear and accurate with a clean high-end that didn't fatigue my ears like some other monitors do after a six-hour mixing session. And the stereo image was wide as a house. The bad news: It became quite apparent early on that I still had some work to do in cleaning up the bass and china crashes on my album.

They aren't cheap, but if you are looking for a set of pro monitors that will inform you about all of those nasty frequencies you forgot to cut on your last mix, you might want to check these out. —*Jeff Anderson*

Mackie MR5
($199, www.mackie.com)

I'll admit it: A monitor at a price point of less than $200 makes me a bit wary. After all, I believe that in the recording world, you really do get what you pay for. Still, I'm a huge fan of Mackie monitors; give me a pair of HR626s, a boom box, and a stock Dodge system and I'm confident I can turn out a pretty nice mix no matter what studio I'm working out of.

So I thought I'd give these a try. Long story short: I'm glad I did, as they are now a permanent fixture in my suite.

Especially given the size (the main driver is only 5-1/4 inches), the low end frequency response on the MR5s is stunning. Seriously, if anything is worth mentioning about these monitors it's that they can hang with some of the bigger dogs in terms of packing a clean punch in the gut—perfect for hip-hop producers with mobile rigs or small studios.

While at first some of the highs weren't as articulated as I would have liked them to be, I didn't see such as a cause to overreact; I knew my room was less than perfect from the get-go. Thankfully the MR5s come with HF and LF acoustic setting switches to help you compensate for low-rent boxy suites that aren't yet properly treated. After dialing in the correct settings, the MR5s struck me as very neutral and unflattering—not quite as brutal as NS-10s, but they certainly don't lie to you.

For those of you who need to mix at reasonable levels and want a pair of inexpensive monitors that don't hype up your mix for you, I have to suggest you check these out. The MR5s' response is pretty nuanced, the monitors are rife with cool features (XLR, 1/4" and RCA inputs are certainly welcomed), and the sweet spot is much wider than you would assume given their dainty size. Good stuff, for sure. —*Matt Harper*

Blue Sky eXo Studio Monitor System
($349, www.abluesky.com)

While some of us live in a world of less-than perfect acoustics (too many damn parallel surfaces), and neighbors (or worse, roommates) who more often than not do not share our enthusiasm for making music, it doesn't mean we can't have a decent monitoring system. Blue Sky claims they make one for people like me, so I asked them to send a unit along.

What we have in the eXo Monitor System is two monitors and a sub, as well as a control hub that accommodates XLR and 1/4" inputs on the back and a pair of 1/8" jacks on the face—an input for your iPod, and an output for your headphones. This multiple-input option makes it possible to broadcast audio from all input sources simultaneously, which is particularly handy for those of us who like to rehearse over MP3 recordings of previous practice sessions in an even mix.

The eXo's control hub serves as the system's main interface, and it also controls the volume through two knobs — dedicated controls for both the monitors and the woofer. Not only does this allow the fine tuning of the speaker/woofer balance, but it also allows for the cutting off of low-end sound when it's not wanted. This is an invaluable feature.

The heart of the system is the woofer unit, a foam-surrounded, forward-firing paper-cone 8" woofer, which possesses a surprisingly robust thirst for mid-low and low end. Also housed within the 25 lb. sub box is the system's amplifier, which dedicates 90 watts of power to the sub and another 35 watts to each satellite speaker. Our test studio is a 14-foot-deep, 10-foot-wide room alcove with 10-foot ceilings, and there was never any question as to the system's ability to fill the space with sound. Long story short: Don't let the small size fool you; this system is more than adequate for a home project studio. —*Max Sidman*

BIG FISH AUDIO AROUND THE WORLD IN 80 RAVES

So is it world, or rave? Both, in a way. It's not as hard as, say, vintage Belgian rave, but the world elements are *not* new age—they're very beat-oriented, and tend to hit hard. Some have a Brazilian vibe, some Middle Eastern, and some . . . uh . . . well, maybe Martian.

This isn't a conventional construction kit, with sections of multitrack arrangements grouped together in folders. Instead, you'll find six folders of files at different tempos (90, 100, 120, 125, 144, 160) as well as some extras, like hits, pads, soundscapes, and effects. There are also presets for mapping sounds to EXS24, Reason NN-XT, Kontakt, HALion, and Stylus RMX. Recording quality is uniformly excellent—clean, but not sterile.

Each tempo folder has three sub-folders: beats, music, and percussion. So, you need to "go fishing" to find the right sound; but the loops work well together, so it's pretty hard to go wrong anyway. The Soundscapes in particular make great "glue" to ease the transition between different beat-oriented sections.

Overall, this is an impressive set because of the quality—no filler, imaginative performances, and sounds that retain a certain degree of familiarity but also bring something new to the party. If you want to take dance/rave music into a different, more exploratory direction that's international in scope, this is ideal. *—Craig Anderton*

Contact: Big Fish Audio, www.bigfishaudio.com
Format: Audio CD for auditioning, DVD-ROM with about 900MB of unique 24-bit/44.1kHz content, duplicated for WAV, Apple Loops, and REX files; presets for various soft samplers
List price: $99.95

EAST WEST FAB FOUR VIRTUAL INSTRUMENT

Yeah, it sounds like a gimmick: sounds the Beatles used in their groundbreaking albums. But if you thought they'd only be good for doing a Beatles tribute album, you'd be way wrong. The star here is the sounds and production, not necessarily the Beatles; while the sounds recall the heyday of the psychedelic '60s, they have an integrity and charm that works in all kinds of musical contexts.

Fab Four uses the Play audio engine, which is stellar: 32/64-bit, Windows/Mac, ASIO/Core Audio, VST/AU/RTAS with convolution reverb, delay, artificial double tracking (chorus), and amplitude envelope. As you play the instruments, you'll recognize many signature sounds—guitars, keyboards, drums, sitar (no brass, though)—but that doesn't mean you have to play the licks they provided for the Beatles. In fact, using them in other contexts provides an intriguing combination of freshness and *déjà vu;* these are highly playable, "organic" sounds that have intrinsic merit and coolness, regardless of their lineage.

The set is not cheap, but the quality is undeniable. I can't imagine what East West must have gone through to track down these sounds (and get engineer Ken Scott on board), tweak them to perfection, and adapt them to a virtual instrument format. Bottom line: There are many great sound libraries out there, but this is a *tour de force. —Craig Anderton*

Contact: East West, www.soundsonline.com
Format: Virtual instrument with about 13GB of 24-bit/44.1kHz samples; requires iLok (not included) for installation
List price: $395

SONY: MATT FINK—STARVU SESSION KEYS

Having reviewed the other three members of Sony's Artist Integrated series—Tony Franklin (bass), Siggi Baldurson (drums), and Parthenon Huxley (guitar)—we'll turn our attention to former Prince & the Revolution keyboardist Matt Fink. Recall that while designed to work as stand-alone sample CDs, Artist Integrated libraries are also intended to function together as a "virtual band."

Fink tends toward rock/pop, with a hint of funk. The sounds lean on piano, organ, clavinet, electric piano, and synth, and are organized in Sessions—most include chord changes. The sounds do indeed lock in with the Artist Integrated libraries, but the other consideration is how well the sounds work by themselves. I find them generally phrase-oriented, so they work best as fills and one-shots, rather than being loops in the sense of working as repetitive patterns. However, that also means one of the best things about this set is you can put together some really convincing keyboard solos by assembling some of the phrases. In fact, a hallmark of Fink's playing is that it has a "live" kind of vibe rather than sounding like a "sampling session."

Bottom line: This set wouldn't be my first choice if I wanted big grooves to start a song, but it has everything needed to flesh out arrangements with some hot leads, fills, and simmering backgrounds. *—Craig Anderton*

Contact: Sony Creative Software, www.sonycreativesoftware.com
Format: Two CD-ROMs with 1.17GB/535 files of loops; 173MB of demo song loops; 24-bit/44.1kHz
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Buying or selling instruments through our Classified Ads offers you convenience, a big marketplace, and a wide range of instruments and prices. However, buying mail-order does have its drawbacks, too. EQ Magazine suggests the following guidelines to help the buyer and the seller in these transactions: 1) Get a written description of the instrument, which should include the serial number. 2) Get front and back photos of the instrument. 3) Get a written purchase agreement, with a 24-hour approval clause allowing the buyer to return the instrument for a full refund if it does not meet his/her reasonable expectations.

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An ad in EQ's Classifieds reaches more than 35,000* serious musicians for only $2.40 per word plus $7.00 for an address. Minimum charge: $25.00. Please underline words to appear in bold type and add $0.50 per every bold word. Please indicate clearly any words to appear in all caps and add $0.25 per every cap word. Each phone number, e-mail address, or website address counts as one word. Call for display rates. 3 months minimum schedule required. Deadlines are the 8th of the month, 2 months prior to cover date (for example, April 8th for the June issue, on sale in early June. Businesses must list business name in ad. All ads must be received in writing, paid in full in advance. All ads must be music-related. Retail advertisers may not list discounted prices or percentages on specific models, unless items are used or discontinued. Advertisers must provide us with complete name, street address, and phone number, whether or not included in the ad copy (you may list a PO Box address in your ad, however). Mail ads to: EQ Classifieds, Attn: Allison Smith, 1111 Bayhill Dr., Suite 125, San Bruno, CA 94066. FAX (if paying by MasterCard, or Visa): (650) 238-0263. For more information, call Allison Smith at (650) 238-0296; E-mail: asmith@musicplayer.com. (*Audited circulation; does not include pass-along rate.)

Company Name _____ Contact Name _____

Address _____ City _____ State ____ Zip _____

Telephone _____ E-mail _____

Please print your ad clearly. Use a separate sheet of paper if you need more room.

_____

_____

_____

_____

(do not include address when counting words)

Category: ❒ Marketplace ❒ Duplication ❒ Talent and Employment ❒ Sounds/Sequences/Software ❒ Mixing/Mastering ❒ Instruments ❒ Accessories ❒ Gear for Sale ❒ Acoustic Products & Svc's ❒ Studio Furnishings ❒ Other

TO COMPUTE COST OF AD

#_____words x $2.40 = _____

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#_____ ALL CAPS wds x $ .25 = _____

Address $7.00 = _____

Total cost per issue = _____

(minimum $25.00)

x number of issues to run x _____

Total payment = _____

❒ Payment enclosed, or Charge my

❒ Visa ❒ MasterCard

Card # _____

Expiration date _____

Signed: _____

AD INDEX

These companies would be very happy to assist you in obtaining more information about their products and services. Please contact them via phone or online.

COMPANY	PHONE	WEB	PAGE #
Auralex Acoustics	800-959-3343	www.auralex.com	49
B&H Pro Audio	800-947-5518	www.bhproaudio.com	35, 53
Backbeat Books		www.backbeatbooks.com	32
Behringer		www.behringer.com	31
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Equator Audio Research	888-772-0087	www.equatoraudio.com	5
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John Lennon Songwriting Contest		www.jlsc.com	57
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KRK Systems	888-361-5528	www.krksys.com	1
Mackie		www.mackie.com/vlz3	7
M-Audio	626-633-9050	www.m-audio.com	23
Mojave Audio	818-847-0222	www.mojaveaudio.com	33
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Pot Luck Audio Conference		www.potluckcon.com	27
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Primacoustic	604-942-1001	www.primacoustic.com	28-29
Royer Ribbons	818-847-0121	www.royerlabs.com	44
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SAE Institute		www.sae.edu	47
sE Sound Engineering	617-623-5581	www.sonicus.net	49
Sonic Circus	888-SC4-GEAR	www.soniccircus.com	51
Sonic Reality	800-232-6186	www.studioprofiles.com	45
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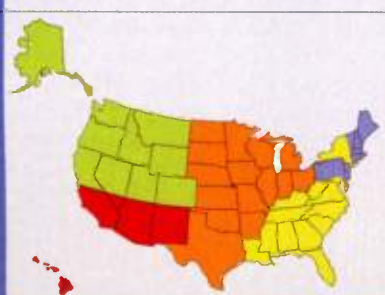
Sweetwater	800-222-4700	www.sweetwater.com	17
Sweetwater	800-222-4700	www.sweetwater.com/gearfest08	59
Tascam		www.tascam.com	C3



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ROOM w/a VU

by Angelina Skowronski

STUDIO NAME: Blackdog Recording Studios
LOCATION: Rochester, NY
CONTACT: www.blackdogdigital.com
KEY CREW: Robert Blackburn, Matthew D. Guarnere, Calvin May
CONSOLES: Digidesign Control 24, Mackie 1402-VLZ3
INTERFACES: Digidesign 96 I/O, 192 I/O, MBox 2
AD/DA: Apogee Rosetta 800
CLOCK: Apogee Big
COMPUTERS: Apple Macintosh 1.8GHz Single G5, Dual 1GHz G4 with 23" LCD flat-panel display
SOFTWARE: Ableton Live 5, Digidesign Pro Tools HD Accel MIX3. 7.4 LE, Propellerheads Reason 3.0
RECORDERS: Alesis ADAT XT20, Panasonic SV3700, TASCAM DA-88 MONITORING: E-mu PM5, Genelec 1031A, Martin-Logan Grotto Servo-Control hi-res subwoofer (2), Polk Audio RM6900 5.1 surround system, Sunfire True Subwoofer MKII
MICS: AKG D 112 (2), C 460 B (3), C 414; Audio-Technica AT4041, AT4050/CM5 (2), AT4055; beyerdynamic M 88 TG; BLUE Blueberry; CAD Equitek e100; Neumann KM184, U87; Sennheiser MD 421 U5, MD 441 U; Shure SM57 (5), SM58 (5)
PREAMPS: Amek System 9098 (2), ART MPA Gold, Avalon VT-737sp, Focusrite Red 1 and Red 6, Vintech Audio 473 (2) and X73i
OUTBOARD: Crane Song HEDD 192, Empirical Labs Fatso and ELX-8 Distressor, Lexicon PCM 90, Peterson VSR StroboRack, Sony DPS-V77, TC Electronics FireworX
STRINGS: Fender American Deluxe P Bass, Paul Reed Smith CE 24 Maple Top, '95 Taylor 400 Series, Yamaha F-310
AMPS: CordoVox CL-10, Fender silverface Twin Reverb and tweed Deluxe, Marshall JCM800 and JCM900 (with matching 4x12 cabs), Matchless Avenger, Yamaha G100-210
KEYS: M-Audio Axiom 61, Trigger Finger, Oxygen 8 v2; Yamaha Concert Grand
DRUMS: Gretsch USA Broadkaster 5-Piece with GMS Drum Co. (4 x 14"), Ludwig Acrolite Steel (5.5 x 14"), and Montineri Custom Maple (5.5 x 14") snares.

NOTES: Lifelong musician and 18-year recording veteran Robert Blackburn says that his pride and joy, Blackdog Recording Studios, was "born in a basement more than three years ago with the goal being to design a space well-suited to host a broad range of eclectic musicians."

But don't let his mission statement fool you, as Blackdog is far from a fledgling studio. The place has serious history. In fact, in a previous life, the space was called Music America, and it housed a little-known band named Metallica for the *Kill 'Em All* sessions.

"We want to make records that will outlive our lives," says Blackburn, noting that the studio's associated label, Blackdog Media, strives to "empower artists as they develop their identity, and form their own niche in a rapidly-changing music industry."

A noble cause, for sure, but one that Blackburn says requires a lot of different rooms to track in. Hence, the six unique spaces with two discreet studios that Blackdog boasts—all of which were designed by Larry Swist of the esteemed Lawrence P. Swist Designs.

"Every record presents a set of unique challenges," Blackburn explains. "Therefore, it's important that we, as both musicians and engineers, keep our minds open to different recording methods, as what is appropriate for one album may not be appropriate for the next. It's never my intention to run a studio where a sonic stamp is placed on an artist's record. Engineering should be transparent. I simply wanted a studio that benefits from, and grows with, creative artists that, though they may never be properly recognized, exude remarkable talent." EQ

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Photo by merkley??? DJ Lea Luna

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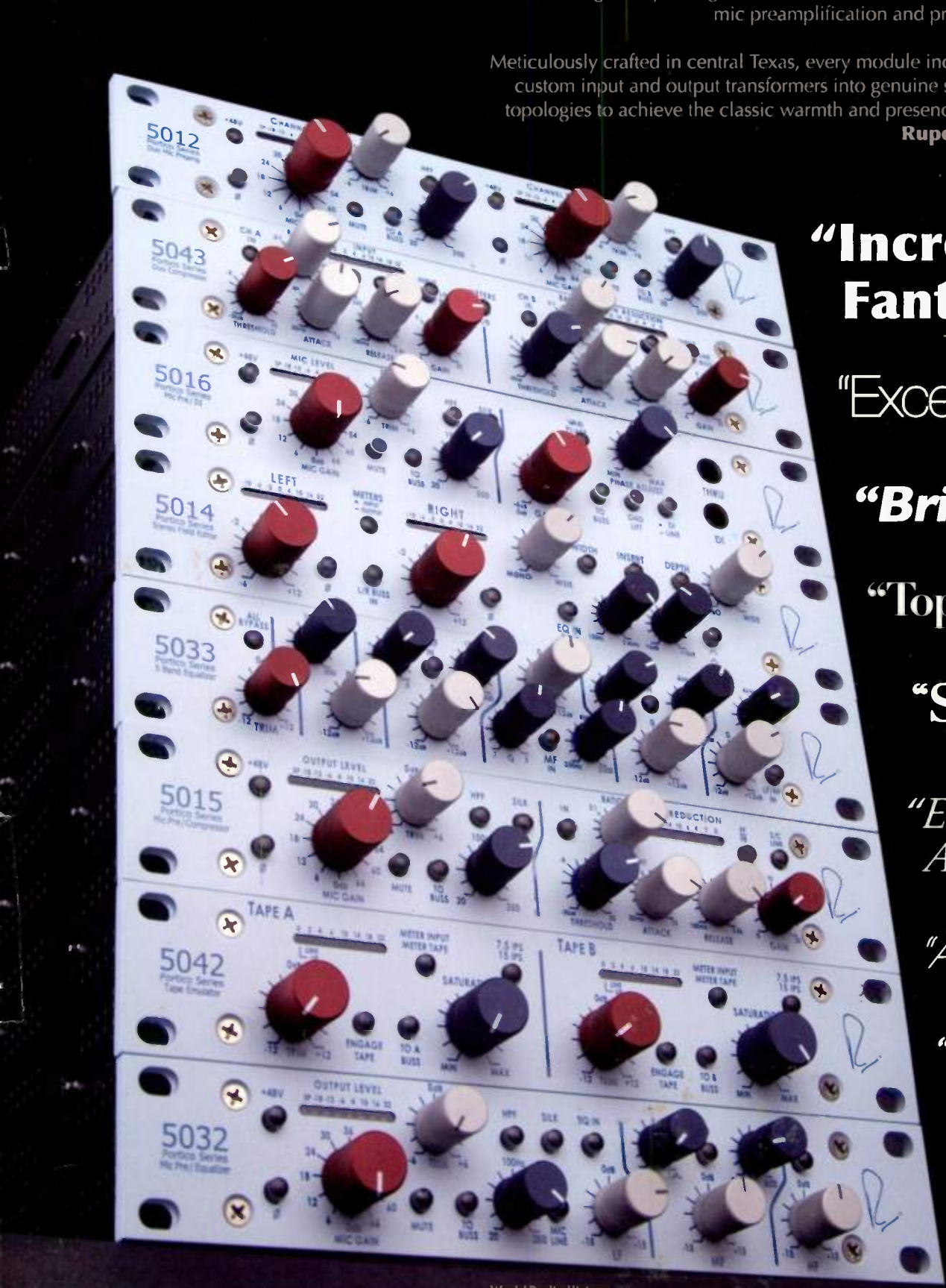

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