RAT TALES

Just An Opinion. But...

Tilting the odds toward a great mix

By Dave Rat

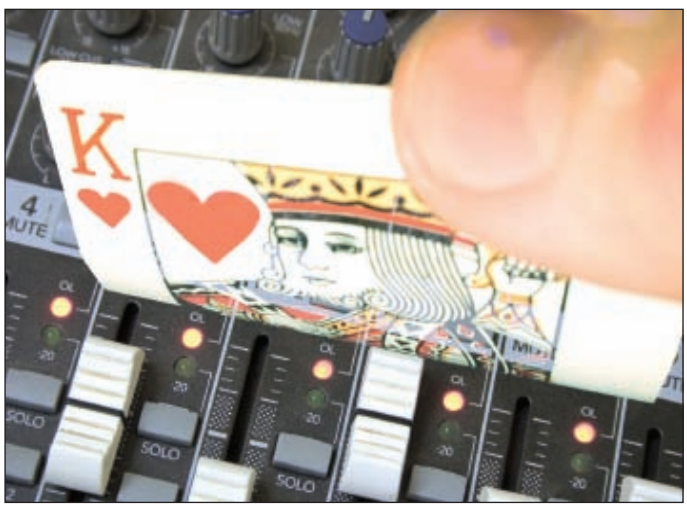
If you're a sound mixer/engineer that always gets handed perfectly tuned systems wonderful sounding rooms while consistently achieving near-flawless mixes, then you're either living in a dream world or working in a recording studio.

For the rest of us, well, there's reality. You know the drill: one shot, do it right, no rewind, irreversible time pressures and crappy acoustic environments. Soundchecks, if possible, have limited relevance because when the doors open, all those people show up and alter the acoustics. (Oh that's right, they make it sound *better.*)

Don't get me wrong, I'm not complaining, No way would I ever remotely consider trading the goosebump thrill of thousands of fans screaming, or the perfect silence of an inspiring moment, in exchange for being cooped up in a control room listening to hearing the same tune for weeks on end. So what if the studio is air-conditioned, the console has more knobs on it and you get to pick out food to be hand-delivered from a notebook of excellent local restaurants?

Over the past 25 years, I've worn many hats, including: PA tech, sound company owner, system designer and mix engineer. I've witnessed fat-wallet mix engineers fumble shows, and struggling newbies produce amazing mixes. Manipulating sound for a live show can be such an unwieldy, intangible and perception-based endeavor that getting a consistent solid grasp is one of the most difficult challenges any of us face as live engineers.

In a previous article, *When Hearing Starts to Drift (January 2005 issue)*, I touched upon locking into solid reference points. Let's further that discussion, looking at ways of tilting the odds in our favor to help achieve the ultimate goal of guiding the audience into an amazing and unforgettable experience.



Mixing sound is not rocket science. In fact, it's probably closer to voodoo. By their very nature, live shows are a fleeting experience. A studio engineer works to create a "masterpiece" that will (hopefully) live forever in permanent hard copy existence, while the very nature of live dictates that every show will be unique, and that none will be "perfect."

Therefore, the live mix engineer is in the business of creating a memory. Impact, excitement and anticipation form the landscape of the journey you're helping guidinge the audience through.

Perception is everything. There's a somewhat unprofessional statement that goes around: "It does not matter whether the show sounds great or not, it's how you make the audience feel."

When someone walks out of a concert saying – "that was the most amazing thing I have ever heard!" – is it really an accurate statement? If you could blindfold and subject them and to a series of live shows from their own past for A/B comparison, would they have the same opinion? Are they referring to fidelity, tonal balance and mix perfection? Or was it possibly the impact, anticipation and excitement that affected them in an emotional way?

As "soundies," we can't force the audience to have fun. We can, however, make sure the audience hears the most important aspects of the music while doing our best to mask and acoustically downplay any issues that arise.

Keeping priorities straight. Imagine being focused, power-mixing a show with the utmost finesse. You're articulating a series of precision, complex

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cues when that irritating knucklehead from the audience leans over the console and says, "Hey man, can't hear the keyboard." My first thought is to strangle the annoying punter and have him/her ejected by security.

This obnoxious person obviously knows nothing about the intricacies of mixing or he/she would be behind the console, right? Well, maybe not. It's all too common for mix engineers to become so wrapped up in displaying the depth of their skills that they forget what is most fundamental and important.

Ever heard an engineer fumbling with effects while the mix sounds tragic? Let's not kid ourselves – 95 percent or more of the audience has no idea, and further, really don't care whether you're using "macro-pristine-ultra-chambers" or $20,000 tube compressors on each of the 12 vocals.

What they do care about:
1) Can they hear the vocals?
2) Can they also hear the vocals?
3) Can they hear everything else? and
4) Does the mix capture their attention and take them away to bliss, or happiness, or rage, or whatever direction the particular music is supposed to take them, so they can stop worrying about whether they hear the vocals?

It's all my fault. No matter what goes wrong sound-wise during a live performance, if the audience notices, then the problem belongs to the mix engineer. There are no excuses.

After all, what are you going to do about it anyway? Quick print some flyers blaming the stage techs and hand them out to each person in the crowd? Here the important point is NOTICE.

Example: O.K., the show starts and all seems good until I realize that there's no guitar mic PA left. I can turn it on and "fix" it, instantly letting 10,000 kids know about the screw up. Or, how about slowly panning the guitar mic to center, then left, and back to center? Then on the next song, if I dialed it all up correctly, odds are that the problem has actually become a cool guitar effect. (Hint: choose the latter approach.)

It's not about hiding mistakes; it's about achieving the best show possible. (Is this concept starting to sound familiar?)

Don't trip over ego. "That snare sound is my sonic signature!" I hate it when certain mix engineers say things like this. It makes my skin crawl.

If the audience is focusing on the way you mix, you're already fighting an uphill battle. I realize that there are many situations where the mix engineer is an integral part of the creative process of the show.

But even in situations when the mix engineer is a welcomed performer – as well as responsible for serving the sonic needs of the audience – the point still remains: don't muck with the "frill" until the basics are dialed in. Drawing attention to the mix rather than the performers on stage is often good for the ego. And bad for the career.

Identify the essentials. Face it, stuff happens. Sooner or later something is going to stop working during a show. Knowing the absolute essential components of the mix is an important starting point to the solution.

An example is essential channels. Without them, there's no reason for the band to continue playing. Generally, for a four-piece rock band in a large venue, these channels include: kick, bass, guitar and lead vocal. Yes, that's just four inputs! Everything else is pretty much just fluff and spares.

I understand this example is a bit extreme, but it should serve to clarify the point.

Be prepared. A well-planned input list allows any input from stage to go bad without adversely affecting the show. Using two mics on the kick, a bass DI and mic, dual mic'ing the guitars, and of course, having a spare vocal mic is a good start.

The "left" and "right" of a stereo keyboard offers redundancy and a cool sound when both inputs work. If the snare top goes down, use the bottom snare and maybe bypass a tom gate. Who cares if the guitar has to go mono or if the bass mic is lost, or anything else for that matter? It's just not that big of an issue when you're prepared.

Losing one's mind, freaking out, yelling at someone (or everyone) to make sure that as many people as possible know something is not working – this is not the ticket.

What IS important: when something goes wrong, stay calmly focused, compensate and continue mixing the show. If working with a tech that seems level-headed enough

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to fix the dead channel, then send him/her out on the mission – but only if you think it can be accomplished without drawing attention or making things worse. (Read: running = bad and calm/confident = good)

This is distilled from some important observations:
1) No matter how much I yell at the sound crew, it never makes it sound better, and,
2) If I act like there's a huge problem, people will know there's a huge problem.

Premature is bad. The anticipation is building, the audience is excited… And there's nothing they'd rather hear than five minutes of stage techs hitting drums and doing half-baked guitar solos, right? NOT! Line checking all the inputs is another great way to ruin it for them.

Not unlike a good book or movie, when mixing a concert, anticipation and surprise are key. Don't give away the punch line. It's also a good idea to avoid playing music that sounds better than you can mix right before the band comes on. For the next 90 minutes, you're trying to create a sonic adventure – the more surprises (of the good variety), the better.

It's O.K. if everything is lousy. Festival gig, and the shed sounds terrible (curse those tin roofs), the system is nowhere near what it should be, the promoter oversold the venue, half the people can't hear the PA, band management is on the mix riser… And you're up!

What now – lay on a big pile of excuses before throwing your arms up, looking for sympathy. Nope.

Focus. Set goals. A dear friend once said to me, " Never face 20,000 people without a smoke and beer in your hand." Though smoking is hopefully a thing of my past, and I'm in no way suggesting drinking will help a mix, my interpretation of this comment has served me well over the years.

Step back, sum up the situation, relax and solve the issues. And setting realistic goals definitely helps. Forget about creating the best sound anyone's ever heard, if there was a time to make

different PA decisions, it's passed. Try not to make the same mistakes next time, but for right now, there is one thought: "What can I do to optimize the mix – *with the tools available*."

Dog eat dog? I respect and admire other mix engineers. But when mixing, my job as I see it consists of making the band that I work for stand out and above the rest. In order to achieve this, it's a good idea to take the time to actually listen to the mixes of the other engineers leading up to your band.

At a festival, if the previous band had a powerful driving mix that tapped the system's low ends at the sacrifice of distinction, I may lean toward clarity. What are my band's highlights and how can I use them to stand out? Rather than turn the soft songs up, maybe turn them down to give even more room to come up for the louder ones.

On the other hand, when faced with following a band that is stabbing the high-end relentlessly, instead of trying to out-stab, I work for some soothing low-end power, which helps the audience realize how uncomfortable the last mix was.

Don't show up with your pants down. In some situations, naked may be a good idea, and I have nothing against mixing in the buff, but I'm referring to first impressions.

Just about any mix engineer can use the first song or two to dial in a mix, but by then, a lasting impression can/has already been made. Truly talented mixers come on with a strong and balanced mix right from the first note. This is one of the hardest things to master, especially when using different local production each day.

Figuring out a way to come on strong and accurate without letting the audience hear your sounds during set change is a challenge that even the best are challenged to overcome.

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You're all alone. One of the more difficult concepts of front-of-house mixing is the fact that the people who best know what it should sound like are on stage and can't hear the mix. When I mixed monitors, it was challenging, but at least there was a possibility of a definitive "good" or "bad."

The FOH mix engineer is left with management, friends of the band and the emotional expressions of the audience to be the blurry judge of success or failure. The upside is that you can get away with some major goofs, the downside is that the most amazing mix is met with being asked, "How was it?" by the band.

Divide the potential " sound of the show" into three possibilities:
1) The way I personally think it should sound based on input from the artist(s) and my experience
2) The sound that the audience tends to respond positively to
3) The sonic signature and sonic markers of the album

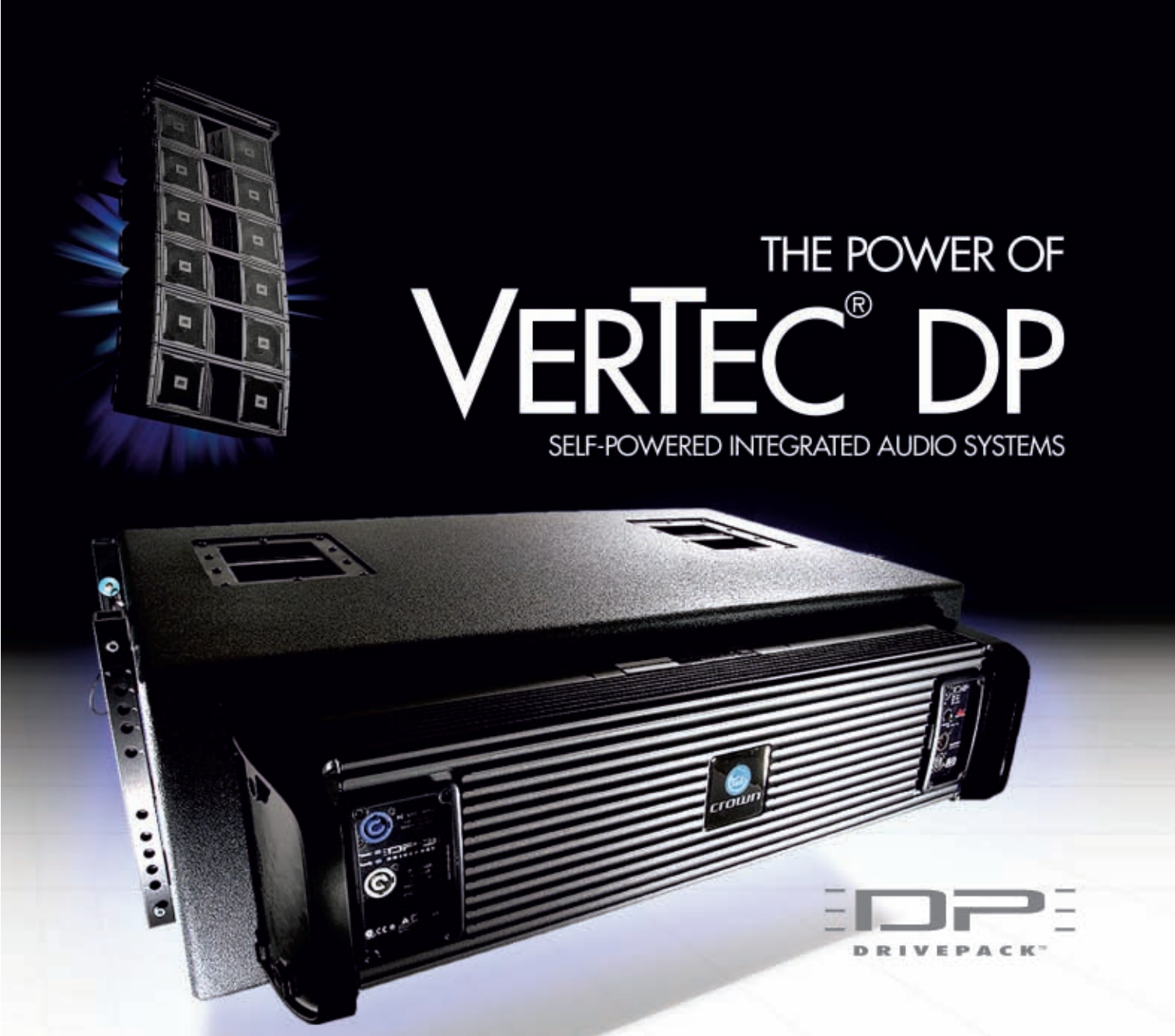
It's extremely important to be able to create, merge and transition between these three possibilities at will. As a "sonic politician," success and approval rating over time hinges on how well versed one can be at bringing these possibilities into a consistent sonic presentation.

Never forget the bigger picture. Learning to operate the equipment allows one to get a foot in the door, and is valuable for solving (and avoiding) technical problems. But mastering the dynamics of mixing a show increases the emotional connection between the audience and the artist. And refining attitude and perfecting the ability to stay calm in the most stressful situations always helps.

All of this is just the foundation. The true culmination of all your efforts is achieving the state where the performers walk on stage knowing "if you're mixing, the sound will be awesome!"

Plus, barring any unforeseen mishaps during the show, you should at least get the gig tomorrow. ■

Dave Rat *heads up California-based Rat Sound. Send him your comments and questions via the Rat Sound message board at www.ratsound.com.*



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