

Pro Techniques from David Pensado

By Randy Alberts

"I usually give away all my secrets. In fact, this morning I answered three e-mails from student engineers looking for advice," says hip-hop, pop, R&B, and rap engineer/mixer *par excellence* Dave Pensado. "Every once in a while I get a really great question from someone I think has what it takes to be in this industry. I give those people my phone number."

OK, Dave, don't say *DigiZine* didn't warn you about including your e-mail in this story.

Every engineer, producer, musician, sound designer, and mixer who has shared their valuable tips with Pro Techniques in the past year comes from the same good place as Pensado does, sharing several few non-billable hours of their time to offer up quotes, comments, photos, screen shots, and tips for us Pro Tools users to prosper from. But Pensado may be raising the bar in terms of public service.



Dave Pensado

"A couple of the greatest engineers in the world [Phil Benton, Ed Seay] took me under their wing and shared everything they knew. This is the very least I can do. Besides, I've learned far more from teaching than I ever have from being taught."

Here to Help with Pro Tools|HD

Pensado hit his stride in Los Angeles in the '90s, after cutting his teeth in the Atlanta audio scene. These days, he's more than a little busy mixing Billboard chart-topping hits for Christina Aguilera, Justin Timberlake, Kelly Clarkson, Pink, Brian McKnight, Mya, and Destiny's Child. Bel Biv Davoe, KISS, Eternal, Sheena Easton, and Warren G have enjoyed the same #1 touch in the past, and you've also heard his mixes if you've seen *White Men Can't Jump*, *Moulin Rouge*, *Austin Powers in Goldmember*, or *Pokemon: The First Movie*.

"People want to hear something that sounds new, and Pro Tools is the perfect domain for doing just that," says Pensado. "The thing that's going to finally bring an end to this dumb digital vs. analog discussion is Pro Tools|HD."

Pro Technique 1— Making bass sound fatter

Before offering any tips, Pensado was quick to point out the philosophical/practical duality of record engineering. Philosophically, one must truly strive to get bigger, fatter, better mixes. If we're not looking for that to begin with, he explains, then we're not going to find it. The practical part is easy.

"A major problem in achieving a big low end is phase coherence," says Pensado, who knows a little bit about the big bottom in a hip-hop 'n' pop mix. "Most analog equalizers can cause a low end phase shift and a muddying of the bass. There's only a handful of analog EQs, like the Pultecs and API 550's, that don't

give you that phase shift. You can get a great low end with those. But the beauty of the digital domain is that there are no capacitors and no transformers, so there's no phase shift. You can take pretty much the least expensive digital EQ plug-in and make it work better for you in achieving a fatter low end."

Pensado breaks his low-end approach into three components: The Last Octave (40-80 Hz), "where most other engineers don't work;" the Next Almost True Octave (80-250 cycles), "where you really have to make the mix stand out on small speakers to give the impression of an enhanced low end;" and the Top End-and-a-Half (250-800 cycles)," where most engineers start muddying things up."



Pensado with Damon Elliot

He also strongly urges us to never simply turn up the overall bass EQ to get more low end. The secret is in paying attention to which elements in a frequency range we're actually turning up.

"If we get too much 250 or too much 350, we're going to get that cardboard sort of muddy sound. I'll ask a student, 'Wait, what are you EQ-ing? If you want more bass just take the fader up.' Now, when you turn it up you've got some other frequencies you're interfering with, for instance in the vocals a bit. Just pull out a little 600 or 1k and the bass is still fat and round, and it sounds natural and life is good again. As you do that more and more, you'll acquire the skills of cutting and notching frequencies out of things instead of adding more. That's the difference between a major league engineer and a minor leaguer."

Pro Technique 2 — The three sacred spots: Making mixes sound wider

Here are three Pensado tips for spreading out the image of a stereo mix:

Accept No Pseudo-Stereo

"Almost every synth has a stereo output, and most people just blindly record the part in stereo," Pensado says. "We tend to do the same with every stereo instrument feed because all the effects returns and plug-ins are in stereo, too, and we think it will all work out. The end result is really just one big-ass mono mix."



Pensado with Billy Gibbons

He suggests listening closely to any stereo output to first ensure it's true stereo, then consider whether two separate mono tracks playing the same part wouldn't work better. In other words, don't be afraid to experiment by turning a stereo Rhodes part into two separate mono tracks with different pans and timbres. Pan one at 9 o'clock and the other at 3 o'clock to add depth and movement without filling sacred aural territory with unnecessary stereo instruments.

"Don't pack everything into the middle and the ends [of the stereo field], and don't accept anything labeled stereo unless it truly is. There are three sacred spots in the mix: Hard left, center, and hard right. If you put something hard left or right, you've got to remind yourself that this is some of the most valuable real estate you have. Is it justifiable for you to place something there? Even more sacred is the middle, because we know we want our vocal there, plus our kick and our snare and our bass guitar, the most

important elements. So why blindly pack a bunch of other stuff in the middle? That's sacred territory. As you use that philosophy more, you'll start finding ways to move things outside the mix, too. Now you're forcing yourself to pick up new skills."

Use Multiple Reverb Plug-ins

Pensado follows the same "stereo logic" when using numerous instantiations of reverb plug-ins. "Instead of panning it hard left/right at the returns, just open up several versions of [Digidesign] Reverb One with the same preset open in each, then alter one or more slightly. Set one at hard left, pan the next one hard right, and experiment with decay times and reflections and such. Now you've got a really great stereo reverb, and when you pan and mix between them you create the definite perception of a really wide reverb."

He also suggests playing around with combinations of different manufacturer reverb plug-ins, adjusting parameters like pre-delay amount, midrange decay time, and overall reverb times and using various panning setups to create sweet panning effects.

"Every time you feed a percussive instrument into that setup you'll feel like it's panning left to right. Your ear will pick up on even the most subtle differences if you EQ the returns a bit, which adds to the effect. And back to the philosophical, now you're thinking in terms of making left and right unique rather than just having them be the same thing."

Track Shifting

Another "wide trick" this affable teacher offers up is simple, yet effective. Instead of panning synth or live strings hard left/right, try something a little different next time.

"Just delay one side by seven or eight milliseconds, or maybe even as much as 14 milliseconds," concludes Pensado before he answers a few more e-mails and gets back to work on his new Mya mix." That's not enough of a shift to really notice the timing delay, but it is enough to notice that the track definitely feels wider. Just grab the left side of the strings, even if they're live strings, and shift them forward in time by seven milliseconds. Now, this is the best part: Shift the right side back by seven milliseconds. The overall timing is still what it needs to be, but now the strings sound really wide."

Send your best queries, formulas, and poems to Dave Pensado at fdpen@ix.netcom.com