



Sweetwater® SweetNotes

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Duende: Magic From SSL

DUENDE: (Spanish) 1. Inspiration, magic, fire...

Solid State Logic
GOURD | VISION

What is it about the sound of SSL that's so emotionally satisfying? You can discuss design, components, and specs until you're blue in the face, but none of that can explain it. The Spanish call it *duende* (do-en-day). What is *duende*? The great Spanish poet, Federico Garcia Lorca said, "...people speak constantly of *duende*, and recognize it with unflinching instinct when it appears... *duende* is a power and not a behavior... from which we get what is real in art." What better way to describe the mystery of SSL's hit-making sound, and what better name than "Duende," for the product that captures it?

TENER DUENDE; TO HAVE A CERTAIN MAGIC

Solid State Logic's **Duende** is 32 channels of DSP-powered SSL magic in your very own studio DAW for around \$1,500! Think of it as a virtual SSL console for your computer — and we're not talking modeled SSL sound — it's the real thing.

Duende's EQ and Dynamics Channel Strip plug-in is ported from the SSL C200 console (which starts around \$275K), and includes two distinct EQs; one based on the SSL G series EQ, and another based on the latest version of SSL's legendary E series EQ. The channel strip's compressor/limiter section has two different modes of signal detection, peak and RMS. Peak Mode offers more dramatic compression characteristics, while RMS can provide more "musical" compression that reacts to loudness like our ears do.

Duende's compression vocabulary also includes SSL's Stereo Bus Compressor found in the Solid State Logic SL 4000 G Series console, the world's most successful studio production console. There's not much point in describing the technology or trying



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Taking a V-Tour into a New World

A major part of a player's technique on a musical instrument is feel — it's the response of the instrument to our touch that forms our technique. This is why concert pianists for example, insist on a specific piano when they concertize, as well as quality time with the instrument before the performance. The reason is that our fingers go into shock on an unfamiliar instrument and we lose our bearings, even if we're performing a piece of music we know intimately.

The same holds true for drums, particularly when it comes to switching from acoustic to electronic drums. Understanding this, Roland is constantly improving the response and feel of their V-drums to enable drummers to enjoy the numerous advantages modern technology offers. Then there are the drummers who find a limited budget blocking entrance into V-drum territory. Roland's new **V-Tour Series TD-6SW** and **TD6SX** put together a number of drummer-friendly improvements at a musician-friendly price.

ROLAND SCORES a TD

The TD-6SW V-Tour kit features the PDX-8; Roland's newest mesh V-Pad that offers separate head and rim triggering for authentic snare performance. The TD-6SX V-Tour kit includes Roland's PD-105BK 10" mesh V-Pad for the snare (and three PDX-8 pads for toms). The PD-105BK starts with new sensors for more accurate triggering. Then, it includes

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from the editor

The Focused Studio



Mitch Gallagher
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Man, I'm having a ball. Between MOTU **Digital Performer 5**, Native Instruments **Kore** (see my reviews in this issue), my new highly organized virtual studio rig, and the Auralex treatments I've installed in my space, I'm loving life in the studio these days. Check out my latest "Studio Notebook" — second in an ongoing series — to learn how you can take advantage of what's out there to streamline your rig and make recording music fun! If you missed the first installment, you can download back issues of *SweetNotes* from www.sweetwater.com/publications as PDF or Zinio documents. (These digital versions are great for archiving *SweetNotes* for future reference, too.)

The true key to making your studio "fun"? During the course of my own "studio makeover" and while helping Sweetwater's Director Of Marketing, Mike Ross, build his studio, I've realized that it comes down to one thing: Knowing what you want to do with your space. My studio is set up for composing music, and for recording myself and other artists I produce. I've got a well-treated isolation booth that I've optimized for recording steel-string and classical guitar. It also works great for electric guitar amps, vocalists, and more. But I don't

expect to do drum kits there, or very many players at once. Finally, the control room area is acoustically optimized for editing and mixdown. Mike's room, on the other hand, is set up for songwriting and small-group rehearsal; he has no intention of recording master-quality tracks there.

In both cases, we approached the design from the back end. We defined what we wanted to do first, then chose the gear and arranged the rooms to support the results we wanted to achieve. Doing so required some soul-searching, but the finished studios really help us get to where we want to be musically, with minimal hassle.

So what do you want to do in your studio? Take a good look at your goals, and narrow your options. Unless you're creating a commercial space you'll be renting to other artists that needs to do everything, chances are, by focusing on the end results, you can create a space that will better serve your musical ambitions

— *Solid State continued from page 1*

to paint a verbal picture of how it sounds — you've already heard it in action countless times on the radio and over your stereo — but just to hammer the point home, "Sticks your mix like audio glue" and "You strap it across your mix — and it sounds like a record" are commonly heard quotes in studios around the world.

NOW YOU'RE PLAYING WITH FIRE

With one simple FireWire cable, Duende will up-endo your Nuendo, turn your Digital Performer into Digital Overachiever, and... well you get it. Duende offers complete integration into the most popular workstation environments, which also includes Apple's Logic Pro 7, Steinberg's Cubase SX3, and Digidesign's Pro Tools HD/LE 7.

Let's face it; it's not in DSP chips, or algorithms, or sampling rates. SSL has Duende, and now, so can you.

>> **Sonic State Logic Duende**
Sweetwater price \$1599.97
www.sweetwater.com/duende

Molten Mixing

As digital systems tighten their grip on the recording world, and plug-ins that emulate every classic piece of gear imaginable are available for virtually every system, some manufacturers are turning once again to hardware. Lately, more and more manufacturers have been integrating hardware control surfaces with DSP-accelerated plug-ins to create systems that offer the best of both worlds — the convenience of software with the feel of hardware.

Liquid Mix is another Focusrite first. Based on the same technology that brought the audio world the acclaimed Liquid Channel, Focusrite now brings Liquid Technology to everyone at a much more accessible price. Liquid Mix offers emulations of 40 compressors and 20 EQs with a FireWire hardware controller. Thanks to its built-in DSP, you can have up to 32 channels of vintage or modern compression and EQ with one Liquid Mix. Imagine having virtually every famous EQ and compressor available at your fingertips, and having 32 channels of signature sounds without taxing your system's CPU — not to mention a hardware control surface with real knobs for dialing in the perfect sound.

In addition to the 20 EQs, the Liquid Mix also lets you create 7-band hybrid "super EQs" from the separate classic EQ sections of your choosing. To keep things interesting, Focusrite has built a free and expanding online library for adding future EQs and compressors to the Liquid Mix arsenal. The FireWire connectivity provides efficient transfer between the Liquid Mix hardware and your DAW — plus, it conveniently powers the hardware via bus power. The



hardware also has a screen, knobs, and buttons for monitoring and controlling the Liquid Mix's effect on the audio, or you can control the functionality from inside your sequencer.

The original **Liquid Channel** won a plethora of awards, and has been a worldwide hit in the audio production world, from project studios to post production and broadcast facilities, not to mention the live arena. Liquid Mix complements the original, delivering dynamic convolution processing for use in the mix. Because the Liquid Channel's vast, elaborate, and expensive analog mic pre section isn't required at mixdown, Focusrite has been able to bring their Liquid Technology to the masses at an even more affordable price with the Liquid Mix.

Liquid Mix is the perfect bridge between the software and hardware worlds. By functioning as a plug-in, it fits into virtually any current Mac DAW that runs VST, AU, and RTAS plug-ins (with a Windows version to follow later this year), yet the knobs beneath your fingers and the sounds of 32 channels of classic dynamics and EQ have a feel that's decidedly old school. Liquid Mix is great for those of us that love digital, but miss the good old days of hardware.

>> **Focusrite Liquid Mix • Sweetwater price \$799.97 • www.sweetwater.com/LiquidMix**



REVIEW: Native Instruments Kore

By Mitch Gallagher

I remember seeing Native Instruments **Kore** at the last NAMM show, and being intrigued... here was a product promising something different! But would NI deliver? I was fortunate to get my hands on a review copy of Kore a few weeks before the product started shipping.

Kore is a combination of hardware and software. The hardware is USB 2.0-compatible, combining a 2-in/4-out audio interface, a 1-in/1-out MIDI interface, eight encoder knobs and eight switches, Input, Phones, and Output level controls, transport controls, and a LCD screen and navigation buttons. The Kore software has two flavors: stand-alone and plug-in. There are several aspects to the software: It can serve as a host for other plug-ins, both soft synths and effects. There's a browser/database with refined search capabilities for sorting through sounds and effects. There are built-in effects. And there are tons of sound design and performance features.

The idea is that Kore becomes the universal user interface for all your plug-ins. Whether you're using it stand-alone or as a plug-in within a host DAW, Kore loads the other plug-ins you want to use, and provides a standard interface. This works seamlessly with Native Instruments' plug-ins. You can also load and use other manufacturer's plug-ins in Kore.

Basically, this "universal interface" idea, combined with the Kore database, allows you to just deal with sounds. So rather than loading up a synth plug and trying to find a bass patch you like, go to the browser, and start clicking keywords: "bass," "fat," "bright," "synth," until you've narrowed the selection down to a sound that matches all those keywords. Double-click that sound, and the plug-in (or combination of plug-ins) that creates it loads in the background. Simple!



Kore Sound



Kore Performance

There are two levels to Kore: The first is Sounds, made up of soft synths and/or effects plug-ins and/or Kore's built-in effects. At this level, you can edit the plug-ins, set keyboard mapping, velocity curves, etc. On top of this is the Performance level. Here you can split and layer soft synths, assign global effects plug-ins, create multitimbral setups and mixer routings, and so on.

GETTING STARTED

Installation was straightforward. Kore requires low overhead — it took about 5% of my dual 2GHz G5 Mac when it was idling. The hardware works great. The knobs are touch-sensitive, and feel solid. You can do pretty much everything from the control surface; great for live performance where you don't want to be staring at a screen, or when your computer monitor gets cluttered with windows.

There's loads of power for building sounds, but it's not hard to navigate around. I worked through the two tutorials (highly recommended) and was soon assigning parameters to control knobs, customizing the operation of the hardware, building



splits and layered sounds, adding effects, and having a great time! It wasn't long before I truly was thinking in terms of sounds, not even caring what plug-in instruments were loading to play those sounds.

Everything in Kore can be saved into Presets, at both the Performance and the Sound level. When Kore is a plug-in, all settings and configurations are stored/recalled with the host DAW's song file.



APPLICATIONS

Live Performance — Set up a stand-alone Kore Performance with the synths and effects you need for a set. Create Presets to utilize the various synths as you need them for songs.

Composing — I made a stand-alone Kore Performance containing soft synth sounds for a piece I was composing. Using Apple's IAC bus, I connected **Sibelius** and **Finale** to Kore — and the sounds I needed were right there!

Sound Design — It's never been easier to meld instruments and effects; you have control over ranges, crossfading, velocity curves, transposition, panning, volume, routing, and way more.

Sound Management — Struggling to find the soft synth patch you want? Kore makes it easy.

Wrapper — Get this: You can load Kore as an Audio Units, VST, or RTAS plug-in. Then you can load Audio Units and VST plug-ins into Kore. I used AU plugs in **Nuendo**, VST in **Digital Performer** and **Logic**, and VST and AU in **Pro Tools**. Cool!

CPU Resource Manager — Presets can save the on/off state of plug-ins. This allows you to have the plug-ins and instruments you need active, while turning off others but keeping them loaded — huge for maximizing CPU power!

PROMISE KEPT

Native Instruments has created an amazing tool with Kore. It takes so much of the hassle out of using soft synths and effects plug-ins. And it provides tons of sound design and performance power. And it's a plug-in wrapper. And it provides a universal user interface that's easy to work with. And it's an audio/MIDI interface. I wish there were room to really get into all the possibilities with this product, because it's something special.

Let me put it this way: If you use a Mac or Windows PC for music, you need Kore. It's that simple!

>> Native Instruments Kore • Sweetwater price \$499.97 • www.sweetwater.com/Kore

—Roland continued from page 1

Roland's latest dual-triggering capacity, resulting in more even and accurate sensing between the head and the rim, and true rim shot capabilities.

V-TOUR IS QUITE CYMBOLIC

The TD-6SW kit includes an improved CV-5 dual-trigger hi-hat cymbal pad, which features a 12-inch playing zone and swing movement for more natural playing feel and appearance. This pad can also be used as a splash cymbal. The TD-6SX kit includes three cymbal pads: a CY-8 and CY-12R/C (which enables separate bell triggering), and PD-8 hi-hat pad. Thanks to the FD-8 hi-hat controller, drummers can get more realistic hi-hat sounds with smooth transitions between open and closed.

YOU'LL GET A KICK OUT OF THIS

Drummers will also appreciate the TD-6SW/SX's upright kick drum pad. Its vertical design not only provides better feel, but also reduces vibration so you get nothing but solid kick sounds. Here's more good news: The kick pad can accommodate double-bass pedals.

BRAINS FOR YOUR HEADS

Both kits include the popular TD-6V sound module, featuring 1,286 sounds, 99 kits, a sequencer/recorder with 270 play-along songs, ambience effects, and an audio mix input so you can play along to prerecorded tracks.

Even drummers firmly ensconced in the acoustic world can benefit from the V-Tour series. Just add V-drums to the mix (so to speak) in order to claim the advantages, such as the ability to choose any sound in the studio, edit notes into place after the fact, and for "silent" practice. For live performance, the size, weight, and sound advantages of V-Tour series kits are inestimable. Call your Sales Engineer to find out more!

>> Roland TD-6SW • Sweetwater price \$1,495.97 www.sweetwater.com/TD6SW

>> Roland TD-6SX • Sweetwater price \$1,995.97 www.sweetwater.com/TD6SX



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Native Power!

By Mitch Gallagher

Back in the October/November 2005 issue of *SweetNotes* I reported on the astounding track counts I was able to achieve using a G4 Mac Mini, G4 PowerBook, and a dual G5 running MOTU **Digital Performer** and MOTU **828mkII**, **Traveler**, and **896HD** FireWire interfaces. In one configuration I was able to record 100 tracks and play back nearly 150 tracks simultaneously! The new Intel-powered Macs promise even more power; look for a report on those machines soon.

But Macs aren't the only computers that provide over-the-top audio power! Today's PCs can handle loads of tracks and plug-ins as well. A great example of audio-optimized computers are the **Creation Station** line of Windows XP PCs we manufacture here at Sweetwater. These machines are set up to be extremely quiet acoustically, are fine-tuned for maximum audio power, and have a list of features that make them great for studio use. I recently sat down with a rackmount dual-core 3.2GHz Creation Station and put it through its paces. For an interface, I selected MOTU's cool new UltraLite. The **UltraLite** is a tiny 1/2-rack FireWire interface that offers eight analog ins and ten outs. There's also stereo S/PDIF digital I/O, as well as a headphone out and MIDI I/O. A built-in mixer lets you monitor your signals without latency. If you need more inputs and outputs, you can daisy-chain up to four UltraLites for a total of 32 ins and 40 outs. It's a monster interface that's compact enough to throw into a laptop bag.

I installed Cakewalk **SONAR 5 Producer Edition** and Synthogy **Ivory**. The Producer Edition comes with many instruments and plug-ins, so I was set. The 3.2GHz Creation Station comes with three hard drives installed: A system drive, and two additional internal drives, which I dedicated to audio tracks and software instruments, respectively.

It was no problem recording and playing 80 tracks at 44.1kHz/24-bit; this required 33% disk usage and just 8% CPU usage. Next I created a 50-track song, and added four bands of SONAR's built-in EQ to each track. This required 19% of the CPU power. Adding 50 instances of the Sonitus compressor plug-in bumped the load to 40%. Adding a Lexicon Pantheon reverb plug-in and Ivory playing dense chords pushed things to 46%. I instantiated the Perfect Space convolution reverb plug-in; this took me to 54%. I added a second instance of Ivory, but performance started to top out. Pretty impressive: 50 tracks, 200 bands of EQ, 50 compressors, two reverbs, and Ivory.

Next up, a more "real world" example. I created an instrumental piece with two stereo audio tracks running Acid loops, one of which was processed with chorus and delay plug-ins. There were two instances of Ivory, one with the Lexicon Pantheon reverb plug-in. Bass was provided by the GrooveSynth plug-in through a chorus plug-in. Strings came from Psyn II, running through flange and another Pantheon. CPU usage hovered around the 15% mark.

To sum up, running a Creation Station with SONAR and a MOTU interface gives you a system that's capable of tons of tracks, has plenty of power for plug-ins and soft synths and samplers, and best of all, is easy to use, and is nearly silent in the control room.



- >> Cakewalk SONAR 5 • Sweetwater price \$499.97 • www.sweetwater.com/SONARPro
- >> MOTU UltraLite • Sweetwater price \$549.97 • www.sweetwater.com/UltraLite
- >> Creation Station Rack • Sweetwater price \$2999.97 • www.sweetwater.com/pc
- >> Ivory • Sweetwater price \$319.97 • www.sweetwater.com/Ivory

studio notebook: Getting Organized

By Mitch Gallagher

Welcome to installment number two of our series on updating, organizing, streamlining, and efficiency-izing (a new word) our studios. As I've been finding in my own personal studio, it takes effort to make your rig operate at its best, but the results are well worth the investment. One of the things I've long struggled against is the occasionally antagonistic relationship between technology and creativity. I love technology and try to use it to its fullest. But whether it's resolving conflicts between hardware and software or between different pieces of software, or just sifting through the myriad options that software-based studios offer us, it's easy to spend more time dealing with the gear than actually making music. With a careful strategy, you can resolve this issue, and have more time for making music!

Last issue (download it at www.sweetwater.com/publications) we looked at a strategy for updating your computer and performing "spring cleaning" — getting rid of all the software debris and junk, cleaning out unused apps, and getting everything current. This time, let's look at how organization can help streamline the use of software in the studio.

DEDICATION

I have several audio applications I use all the time, and have amassed quite a collection of software instruments. All of which give me lots of options for creating music. The downside is keeping track of those options and actually figuring out what I want to do. "Option anxiety" is especially a problem when it comes to sorting through all the patches and presets for the software synths. Here's how I addressed that: I went for dedicated solutions. So I figured out which instruments were best for particular tasks, and dedicated them to that application. In my case, **BFD** provides my drums. **Ivory** does my acoustic pianos, **Lounge Lizard** does my electric piano, and so on. **Symphonic Orchestra** and **Symphonic Choirs** do the classical thing for me, **B4** is my electric organ. You might prefer **Drumkit From Hell**, **Akoustik Piano**, **Elektrik Piano**, **Miroslav**, **Garritan**, or **Vienna Symphonic Instruments** as your choices. Beyond these, I also use sources for "other" sounds, such as **Battery**, **Rapture**, **Absynth**, **Minimoog V**, **TimewARP 2600**, **UltraFocus**, **Hybrid**, **Stylus RMX**, and others.

By choosing specific instruments, I accomplish two things: I know exactly where to go



when I need particular sounds. And I can pull those sounds out of my "general" sampler's library (in my case **Kontakt**; you might select **Mach Five**, **ESI-24**, **SampleTank**, or **HALion**), reducing the size it requires.

To make things even faster, I created a folder with aliases ("shortcuts" in Windows-speak) for all my instruments that lives on the Mac's toolbar, ready for immediate access. Aliases for my music apps also live on the toolbar; they could be on the desktop if you prefer — whatever is faster for you.

By way of keeping things current, I should note that the arrival of Native Instruments **Kore** in my studio changes things a bit. As discussed in my review in this issue, **Kore** lets you approach things from a sound perspective, rather than a soft synth standpoint — which soft synth you're using is really secondary to the real point: finding the sound you want. **Kore** also lets you database and easily locate sounds for all your soft instruments. It's a beautiful thing, and has already become vital to my studio.

ORGANIZATION

Once I had my list of instruments figured out, I began looking at their libraries and how best to deploy the sounds. All those soft synths take up a lot of space, and many of them require a fast hard drive in order to stream large samples. It's not uncommon to have each instrument require 8GB, or even more. **Colossus** needs 32GB, **Ivory** comes in at 40GB, and with all its expansion libraries installed, **BFD** consumes something like 160GB! Fortunately, hard drive space continues to get cheaper. Here's how I dealt with it: I have one 200GB **Glyph** FireWire hard drive dedicated to **BFD**. A second **Glyph** 200GB drive houses **Ivory** and all the libraries for Native Instruments **Komplete**. A third **Glyph** drive holds **East West Symphonic Orchestra**, **Symphonic Choirs**, **RA** (for ethnic sounds), **Colossus**, etc. Finally, I added a **Glyph GT Key** removable FireWire drive system for backing everything up. The **Glyphs** are all rackmounted in a machine room (more commonly known as the closet under the stairs) right next to the computer.

It all works smoothly, and it's made using my system so easy. I can literally be ready to make music in the time it takes to boot the computer and load an instrument or app — just a minute or two. Join me next issue as we continue taking charge of our studios!



Fix Your Room

By Mitch Gallagher

If you don't have a great sounding room, it's can be a challenge to make great recordings. Fortunately, there are simple things you can do to spiff up the sound of any space.

- **Tame the Echo** — Most spaces with parallel walls have flutter echo problems. Place a 4-foot square of absorption on the wall midway between the monitors and the listener to cure the worst reflections.
- **Don't forget the ceiling** — Sound can bounce off the ceiling the same way it can off the walls. Treat the ceiling with absorption, just like the walls.
- **The floor** — My recording booth has a carpet floor, which is fine most of the time. But it can make certain things sound boxy. I glued porcelain floor tiles to 2'x2' plywood squares to make a removable floor I can lay down quickly when needed.

- **Trap it** — Bass trapping is a requirement for almost all rooms. The easiest way to do it in a home studio is to treat the wall-to-wall or wall-to-ceiling junctions. Auralex makes several bass trap products, or you can make your own.
- **Keep it live** — Many studio owners make their rooms too dead. With the right treatments placed correctly, you don't need to completely deaden your space — which makes it much more fun to work in.

Check out our acoustic buying guide at sweetwater.com/acoustic-guide

To learn more about home studio acoustics, check out Mitch's new book **Acoustic Design for the Home Studio** from Artist Pro publishing. It's available from Sweetwater, of course.



Perceived Value

There's been no shortage of budget-minded gear hitting the market lately, some that's great and some that's... well... budget gear. But when a heavyweight in the mic world weighs in with an economically priced entry, we tend to pay attention! The **Perception 100** and **200** from AKG are reasonably priced (\$99.97 and \$159.97 respectively), true pressure-gradient large-diaphragm condensers, and just as you'd expect from AKG, they're pretty cool little mics.

The Perception series boasts a cardioid pickup pattern, 1-inch diaphragm, and flat frequency response with a bump at around 10kHz for increased presence and detail, all wrapped in a rugged, silvery-blue casing with a shiny nickel-plated grille. The Perception 200 adds a -10dB pad, a 300Hz 12dB/octave low-cut filter, a shockmount, and a case. We liked what we saw on the spec sheet, and the price was intriguing, so several of us decided to take the Perceptions for a spin to see what they sounded like.

Keeping in mind the Perception mics are priced to appeal to project studio guys, we decided the best course of action was to set the signal path up with gear commonly used in project studios. We placed the Perception 200 about a foot back from a steel-string acoustic guitar, lined up with the 12th fret and pointed slightly toward the soundhole. We recorded straight from a preamp into Pro Tools. After recording a couple of minutes of acoustic noodling, we settled in to listen to the playback.

Everyone who heard the recordings was floored. The AKG came through with flying colors. The general consensus was that the recorded guitar sounded just like it did live in the room. The lows were warm and round without the slightest bit of boominess. The bump at 10kHz was perfect for acoustic guitar — smooth and present highs without harshness — and hinted that this mic would fare well on vocals as well.

Lower cost doesn't necessarily equate to low quality, and the Perception series certainly verifies that statement. These mics feel solid and well constructed, and offer exceptional sound quality that reinforces that notion. Either of these blue beauties is well worth the money, and home, project, and pro studios alike will find them useful additions to their microphone lockers. — *Jon Schaffer*



➤➤ **AKG Perception 100** • Sweetwater price \$99.97 • www.sweetwater.com/percep100
 ➤➤ **AKG Perception 200** • Sweetwater price \$159.97 • www.sweetwater.com/percep200

The Microphone Manual

By **Mitch Gallagher**

It's the rare studio indeed that doesn't own and use at least one microphone. The microphone is arguably the most critical link in the recording signal path — it's where sound waves are converted to delicate electronic signals...not an easy job to do well! Here are some tips for getting most out of your mic locker:

- **Choose the right polar pattern** — I've heard that something like 90% of all recordings are made with cardioid pattern. But lately, I've been using omni-patterned mics much more. You get the sound of the room, natural tonality, and no proximity effect. Mics with switchable patterns tend to sound slightly different at each setting; experiment to find the best for your source and room.
- **Use the nulls** — If you're using a directional mic (cardioid, hypercardioid, figure-8, and so on), utilize the "nulls" — the "dead" points in the polar response — to help achieve better isolation.
- **Use proximity effect wisely** — While proximity effect can help make a sound fatter, it can also add distortion, and create response problems. If the situation allows, try pulling the mic back a bit to get a more natural sound.
- **Choose the right type of mic** — Should it be condenser, dynamic, or ribbon? Small or large diaphragm? Tube or solid-state? Only your ears can tell. Take the time to get to know your mic collection well; learn how each mic sounds on different sources.
- **Watch out for reflections** — Any surface in the vicinity of the microphone can generate reflections, which can cause cancellation in the sound. Some offenders include the floor, music stands, walls, the ceiling, furniture...
- **Shock and pop prevention** — A shockmount is highly recommended for preventing stand-borne vibrations from getting into the microphone. Likewise, a pop filter is essential for taming plosives when tracking vocals.
- **Warm it up** — Tube mics should be powered up at least 30 minutes before you need them for critical recording so they're thoroughly warmed up before use.
- **Watch the phantom** — Today's ribbon mics can withstand a lot of abuse. While some can handle phantom power, others will be destroyed by it, especially if there is any problem with the phantom, or if you're running the mic through a patch bay. To be safe, avoid applying phantom power to your ribbon mics.
- **Handle with care** — Today's microphones are amazingly rugged, but they're still precision instruments. If they're mishandled, they won't sound their best. If you leave them on stands, keep them covered. Best of all, keep them in their cases or pouches.

➤➤ Check out our microphone buying guide at sweetwater.com/mic-guide

Upgrades, EQs, and Synths!



Find everything you need to know at sweetwater.com/prottools

Setting a new standard... raising the bar... just when you thought it couldn't be any better... that's it. We've run out of clichés to describe Digidesign's habit of improving on the industry standard. Perhaps it's an annoying habit for the competition, but for the largest Pro Tools dealer in the land, it keeps us on our toes, and you at the DAW. Rather than work overtime to be clever, let's just cut to the chase and tell you what's new in the latest Pro Tools update, version 7.2.

By continuing to streamline the workflow of the industry's leading recording software, **Pro Tools 7.2** is designed to boost the power and speed of post-production facilities running Pro ToolsHD or ICON systems. Among the performance enhancements are expanded integrated video capabilities including video editing options, the ability to work with multiple video clips and playlists, and bouncing edited files to QuickTime. There are also several other improvements concerning the integration of audio and video, as well as new mixing, automation, and multi-channel audio options — literally too many cool new features to mention in the limited space we have. Pro Tools 7.2 is expected in the second half of 2006 for \$199.

Not to leave out the legions of loyal **Pro Tools LE** and **M-Powered** users, Digidesign anticipates the release of an Intel-based version by the end of May, which will take full advantage of the host computer's processing power. This will be a free upgrade for all registered Pro Tools LE and M-Powered users.

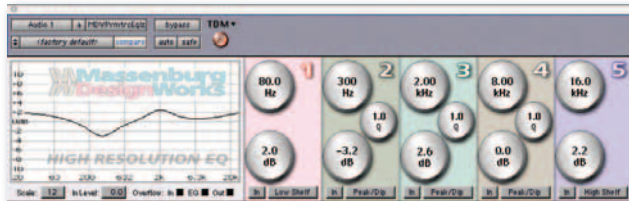
NEW HI-RES EQ FROM MASSENBURG

The hits just keep coming for Pro Tools, this time in the form of version 2.0 of the Massenburg DesignWorks **Hi-res Parametric EQ**, which now employs 48-bit double-precision processing for ultimate sound quality.

This new version has the same amazing sound as the older version, with performance improvements. Version 2.0

allows you to pick just a 3-band EQ

in situations where massive EQing isn't necessary, which conserves DSP resources. The feature that's got us foaming at the mouth around here is the new IsoPeak functionality, providing excellent isolation for sweeping through the frequency spectrum looking for sweet or ugly spots that need attention. After you've dialed in the EQ, the A/B snapshot feature is great for checking which EQ setting works best for that instrument. Lastly, Massenburg included a phase inversion switch for dealing with phase issues in the studio without additional plug-ins. Most importantly, it's coming from George Massenburg, so you know it's going to sound fantastic. After all, he invented parametric EQ!



COMING UP FOR A.I.R.

Created by Digidesign's Advanced Instrument Research (A.I.R.) division, **Hybrid** gives you the ability to emulate the classic warmth of vintage analog synths or break new sonic ground with digital wavetables — or any combination of the two — to forge your own signature sound. The RTAS plug-in comes equipped with a whopping 256 presets that can be endlessly modified by the wide array of user-adjustable controls. Among the sound-shaping parameters are three high-definition oscillators, four envelope generators, LFOs, 23 filters, and the ability to insert two effects per part along with a master effects section. With 256 presets and this many tweakable modifiers, this is one virtual synth that's sure to keep you interested.

Hybrid isn't just a studio tool. Add a laptop and your favorite MIDI controller, and Hybrid excels on stage as well. Set up "morph" groups and have access to quick and easy modifications on the fly. But if you do use Hybrid in the studio, you'll find it's designed for seamless integration into Pro Tools software, especially since the advent of Instrument Tracks in Pro Tools 7. From the expansive set of preset patches to the nearly endless combinations of modulation, filters, oscillators, and envelopes, Hybrid will make any musician, composer, or sound designer very happy.

So how do you wrap up an article that exceeded its cliché quota in the first paragraph? How about by suggesting you call your Sweetwater Sales Engineer for more information about any of the products mentioned here? After all, we've sold more Pro Tools systems than anyone else.

- >> Hi-res Parametric EQ • Sweetwater price \$795.00 • www.sweetwater.com/mdwhireseq
- >> Digidesign Hybrid • Sweetwater price \$249.00 • www.sweetwater.com/Hybrid

Inside Sweetwater®

music technology direct™

Chuck Surack



A lot has been going on here! The big news is we've broken ground on a new home for Sweetwater. Our current building has served us well, but we're totally out of room — so it's time to make a move. It's the only way we can continue to provide you with the kind of service you expect from us.

We've developed a plan that utilizes state-of-the-art technology and communications, and that facilitates efficiency in every aspect of our operation. From cutting-edge warehouse and shipping facilities to a greatly expanded sales floor, the new facility is designed to make your Sweetwater experience first rate in every respect.

The facility will have some cool features, including a technical training center designed by Russ Berger Design Group. Our studio division will be getting a new multi-room studio, also designed by Berger, with a design on par with the world's finest recording studios. When you visit our new campus next year (consider this your personal invitation!), you'll find a greatly enlarged and enhanced retail store, with big demo rooms and a huge selection of gear and instruments. Whether you're an engineer or a musician (or both), you'll be treated to a state-of-the-art retail experience, all designed to make shopping at Sweetwater even better.

Sweetwater's new facility has been designed from the ground up to support the level of service our customers expect and deserve. From a huge warehouse that will hold even more inventory, to a streamlined, efficient distribution/shipping center, to an expanded sales floor, to enhanced service and tech support areas, this new building will help us help you! We expect to move in late this fall...we can't wait!

I'm very proud that our new building will be certified under a program developed by the U.S. Green Building Council. The Leadership in Energy and Environmental Design (LEED) program certifies building design that practices environmental awareness and conservation, while simultaneously achieving economical performance. The new facility will be rated for water and energy efficiency, use of recycled building materials, and the overall innovation of the design.

More than anything else, this move is about our friends and loyal customers. Your support has been the driving force behind Sweetwater's success, and our new headquarters will be devoted to serving you with the efficiency, the commitment, and the care that you deserve. Thank you from everyone here at Sweetwater! If you want to share in the ongoing progress and excitement, visit www.sweetwater.com/feature/expansion.

TORCH AWARD

I'm happy to announce that Sweetwater was recently honored with a Torch Award For Marketplace Ethics. The Torch Awards recognize companies that demonstrate commitment to ethics, integrity, and honesty. Customers, vendors, and employees nominated companies, which were divided into four categories based on number of employees. Sweetwater was named the winner of the 51 to 250-employee category.

I've told the story before, but I founded Sweetwater 27 years ago because I couldn't find a music and audio dealer that offered the service, selection, and above all, the honesty and integrity I needed to support my recording studio business — I wanted a dealer I could trust to do the right thing for me. That's the foundation we've built Sweetwater upon, and we work hard to maintain the level of integrity, honesty, and ethics our customers deserve. I'm very proud that the efforts of our entire staff on behalf of our customers have been recognized with this award.



KROEMER RD.

CHWY 30 WEST

Korg RADIUS

There's certainly no shortage of software synthesizers out there, and it seems that just about every major classic analog synth has been emulated and turned into algorithms. We love the power of soft synths, but it's nice to see someone breathe new life into the synth arena with a focus on creating new sounds in the hardware world. Enter **RADIUS** — Korg's new synthesizer/vocoder — which is chock full of modulation and sound creation options, sure to keep the creative juices flowing.

Nobody does keyboards quite like Korg, and their new RADIUS synthesizer represents a big step forward in design and functionality. The sound module can be used independently or coupled with the dedicated keyboard allowing you to customize your RADIUS to suit your working style. With 256 onboard programs, each with four timbres, sounds can be split, layered, or run independently on separate MIDI channels. Borrowing the low-aliasing design from Korg's OASYS, each timbre has two oscillators delivering a wide variety of modulation options. With three envelope generators, RADIUS can apply a number of time-varying changes to the pitch, filter cutoff, and amp level among other parameters. The 4-stage ADSR design works in perfect conjunction with the envelope generator for precise sculpting of the sound. To further expand your options, the two 32-step sequencers can be linked to become a massive 64-step sequencer.

RADIUS comes loaded with a 16-band vocoder section that allows you to record up to 7.5 seconds of incoming information, be it speech, singing, or any other sound source. Sixteen banks of this recorded information can be stored for instant recall, making the RADIUS great for studio or stage. Korg included a headset condenser microphone to input the signal to be vocoded, or switch the input to run line level signals through the vocoder.

RADIUS is available in two models; a rackmountable module or the module with a dedicated 49-note, velocity-sensing keyboard with pitch and modulation wheels. The free RADIUS Sound Editor software allows for editing and managing settings on a Mac or Windows PC using a USB connection for data transfers.

RADIUS is designed for musicians who are serious about creating unique and interesting sounds. With the capability to do anything from a classic electric piano to mind-melting space-age sound synthesis, the RADIUS can fill countless roles — and still have room left to push sonic boundaries.



»» Korg RADIUS • Sweetwater price \$1699.97 • www.sweetwater.com/radius

Better Sequenced Drum Parts

By Mitch Gallagher

With the onslaught of software synthesizers and samplers, MIDI programming is undergoing a resurgence in popularity. Fortunately, we've got a lot of great tools for creating MIDI performances at our disposal. Here are tips for better, more natural, MIDI drum parts:

- **Know your limitations** — A drummer can strike a maximum of four items at once — one with each hand and foot. If your part has more drums or cymbals hitting at once, it's not going to sound real.
- **Study the real thing** — A few years back, I did "parody" songs for a local radio station. Using MIDI I would duplicate, as exactly as possible, the hit song of the day, then the station would lay humorous lyrics on top. Later I produced an album for a group where there was no possibility to use a live drummer (for a variety of reasons). I used MIDI to reproduce the drummer's performance from a live show, which became the drums for the album. I also programmed the drums, bass, and backing tracks for 50 or so songs for a MIDI duo. All that practice has given me a good idea of how a real drummer would approach a song or passage.
- **Add some feel** — While I can program drums using a mouse, I prefer to perform at least the basic beats for the song using my M-Audio Trigger Finger pad controller. It's faster, less tedious, and just "feels" better than a step-entered part.
- **Turn off the grid** — Nothing sounds less real than a completely quantized drum track. Even if you're step-entering, you can move things around, slide the

tempo a bit, or add slight timing variations to "humanize" the performance.

- **Use dynamics** — Programming every drum hit with the same velocity is second only to rigid quantization as a culprit for preventing MIDI drums from sounding real. Every strike a drummer makes is going to be at a slightly different volume, even if he's trying to maintain the same dynamic. Try to never have two hits in a row with the same velocity; I try to vary velocities by ± 5 to keep things sounding natural. (I use higher and lower velocities for accents, crescendos and decrescendos, etc.)
- **Don't play too much** — Many MIDI drum parts I've heard non-drummers come up with are too busy. Keep it simple.
- **Consult a drummer** — A drummer playing an electronic drum kit can result in very realistic drum parts — after all, it's a real drummer playing real parts! But even if you don't have an electronic drum kit, consider getting input from a drummer as you're programming. Chances are, they'll have suggestions for keeping it real.



The Sweetwater Difference — Experience it for yourself! Call, fax or email us today!

TranzPort Update

The innovative **TranzPort** from Frontier Design Group turned a lot of heads by giving you remote control over your DAW. This handy unit solved a lot of problems for solo musicians working in their home studios!

With driver version 1.3, TranzPort now provides control over Apple's **iTunes** software, with control over playback and volume. TranzPort will also let you select tracks, navigate through your iTunes

library by song, artist, or album, manage playlists, and control shuffle and repeat modes.

Additional new features take what was already an incredibly useful studio tool, and make it a great addition to your live rig, letting you manage iTunes from across the room. The new drivers also expand support for Pro Tools.

In addition, Tranzport is now supported by **Samplitude 8.3**, **ACID Pro 6**, **Metro 6.3**, and **Traktion 2.1**. Plus, Tranzport supports your Intel-based Mac. All this for under \$200!



FRONTIER
DESIGN
GROUP



Zinio

ProGear goes

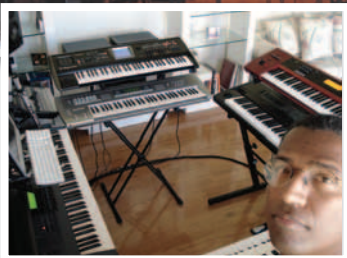
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>> Frontier Design TranzPort • Sweetwater price \$199.97 • www.sweetwater.com/TranzPort

Customer Studio: Oscar Caraballo



Composer and sound designer Oscar Caraballo's Melodic Dreams is one man's musical oasis where technology and art come together in transcendent harmony. Says Oscar, "Imagine a granular, subtractive, FM, additive synth combined with a physical modeling, linear arithmetic, and VAST synth in one melodic line — it happens in Melodic Dreams every day." Not just a creative environment, Oscar also sees his studio as a place of research as well, dedicated to discovering new methods of sound creation from which, hopefully, a new art form will emerge.

Oscar studied electro-acoustic music at the Institute of Phonologie of the Venezuelan National Youth Orchestra, piano at the Conservatory of the Philharmonic Orchestra of Caracas, and holds a BS in physics from the Universidad Central de Venezuela. He also studied composition at California State University, Sonoma. When he's not engaged in his work as a telecom engineer at Cisco systems, Oscar is busy exploring musical worlds yet uncharted. With four albums to his credit, including his critically acclaimed *Yesterday is Tomorrow*, he plans on releasing three more albums this year. If you're not feeling like a bit of an underachiever yet, as a computer engineer, Oscar was also involved in the software development for Reaktor, Tassman, and KYMA.

While most composers start their process by sitting down at the piano or synth, Oscar's process begins with creating unique, virtual instrument models, designing the "physical" and timbral behavior of the instrument and so on. You could say that he composes his music from the sub-atomic level.

When asked about his relationship with Sweetwater, Oscar had this to say, "Melodic Dreams and Sweetwater have been tightly connected since the beginning. I love the Sweetwater philosophy. The most important thing is the respect that I have always felt from its people — starting with my Sales Engineer, Dave Brow — all under a light atmosphere of musicality and friendliness." Says Dave, "Oscar is great! He usually contacts me via e-mail early in the morning, and will usually order what I recommend."

We wish Oscar continued success and look forward to his new releases. To find out more about his studio, Melodic Dreams, go to www.etherealharmony.com.

Want to see your studio in SweetNotes? Email photos to Mitch Gallagher now! (mitch_gallagher@sweetwater.com)

REVIEW: MOTU Digital Performer 5



By Mitch Gallagher

It's always a big deal when one of the premier DAW manufacturers unleashes a major upgrade on the world. So no surprise there's been big buzz about **Digital Performer 5** from MOTU. I (along with hordes of other DP lovers) was really looking forward to seeing what MOTU had in store for us.

BIG NEWS

I installed DP5 on my Mac, and got down to business. The biggest news is probably that the program comes bundled with six new virtual instruments. These include Modulo (2-oscillator digital waveform synth with phase modulation), Model 12 (12-part virtual drum module), Proton (2-operator FM synth), Nanosampler (a mono or stereo sample player), BassLine (analog modeled bass synth), and PolySynth (inspired by the Roland Juno 6).

I was especially enamored of Model 12 for putting together MIDI drum tracks, and Modulo, which is capable of some very inspiring sounds. Nanosampler is quick and easy, when you don't need complex sample editing power. BassLine has that thick analog drive, and Proton and PolySynth provide useful sounds for realizing arrangements. All in all, MOTU has delivered a powerful collection of useful instruments for your productions.

ON TRACK

The new track folders feature is something I've been longing for in DP; now you can collect various tracks into a folder, which is great for organization. I often end up with tons of MIDI drum tracks in my songs; track folders make everything so much cleaner!

ON DISPLAY

DP5's new Meter Bridge is a window that lets you monitor levels for all signal paths in one place. You can easily select what's displayed: inputs, outputs, buses, whatever you want to see. You can customize the window layout and the meter behavior, and resize the meters for visibility across the room. I love the new Meter Bridge!

EDIT

There are four new edit tools in DP5: Roll (adjusts the border between two adjacent regions), Slip (adjusts the waveform within a clip), Slide (adjusts the clip position without moving the waveform), and Trim (drags the edges of a region). Slip and Slide are tough to explain, but make certain types of audio edits much easier.

MORE

There's so much more in DP5: powerful film scoring features, new click and count-off options, clip-based volume automation (stays with the audio clip if you move it), live input monitoring without the track being in record, MIDI keys (turns your QWERTY keyboard into a MIDI keyboard), support for Pro Tools 7 (there's a long list of new PT features recently added to DP; suffice it to say, DP offers the most comprehensive support for Pro Tools of any third-party DAW), and the proverbial "so much more."

DP RULES

In short, Digital Performer 5 rocks — I've just barely scratched the surface of what this upgrade provides, on top of all the features already in DP! If you're a DP user, don't miss this upgrade. If you're thinking of switching, it looks like MOTU just sealed the deal. . . .

>> MOTU Digital Performer 5 • Sweetwater price \$499.97 • www.sweetwater.com/digperf

QUESTION ANSWERS Q & A

Q: What is "damping factor" with regard to amplifiers?

A: In simplest terms, damping factor is how well an amp will control the speakers connected to it once signal has stopped. Technically, the damping factor of a system refers to the ratio of nominal loudspeaker impedance to the total impedance driving it (amplifier and speaker cable). A high damping factor means the amplifier can absorb the electricity generated by speaker coil motion, stopping the speaker's vibration.

The effects of damping are most apparent at low frequencies, in the range of the woofer's resonance. Well-damped speakers sound "tighter" in the low end. Low damping factor results in mushy or indistinct bass. If resonant motions of the speaker aren't sufficiently controlled by the amplifier, the speaker can have over-accentuated or "boomy" bass. Proper damping has many benefits including lower distortion, and flatter frequency response.

Q: What is the correct boot-up sequence for hard drives and computers?

A: In general, it's best to power-on peripherals first, and then boot up your computer. With FireWire and USB devices, it doesn't matter which is powered on first, as the computer will detect the devices once they're turned on. When dealing with SCSI devices, you must power the peripheral devices on first, or use a mounting utility to access them after the computer boots.

Q: I recently bought a pair of studio monitors and the manual said to break in my speakers. What exactly does that mean, and why is it necessary?

A: Some monitor manufacturers recommend a break-in period, some don't. Breaking in your speakers simply means loosening up the driver surrounds and evening out the frequency response of the speakers by playing audio through them. One easy way to do this is to play a CD on repeat through the speakers at medium-soft volume for a few days. A broken-in speaker is said to sport slightly softer midrange and slightly increased low end.

You can use the speakers at moderate volumes during the breaking-in period, but avoid high volumes until the speakers are fully broken in. If your monitors are inactive for a month or two, it might be a good idea to go through this procedure again.



Model 12



Meter Bridge

Mad with Power!



Furman Sound M8

One of the great things about working at Sweetwater is that you're always surrounded by the latest and greatest gear. It's literally like being a kid in a candy store. With all the amazing mics, processors, and software that are available, it's easy to forget about an extremely important and often overlooked piece of gear that every studio should have — a power conditioner. A single unit can improve the performance of your gear, and more importantly protect your studio from potentially damaging sags and surges in the power supply.

It's ironic that we'll save our money for high-end gear in order to get the best sound for our music, yet we tend not to allocate any money for equipment to enable that gear to sound the way it should and to protect it from spikes in the power. The very nature of a digital studio is dependent on comparing miniscule changes in operational voltage to know what operation to perform. Any minor shift in the amount of power these microprocessors receive can cause a miscalculation, resulting in poor machine performance or worse yet, damage to the equipment. In order to keep your studio running at its top efficiency and as noise-free as possible, it's important to maintain a steady stream of clean power for your gear.

True story: One of our friends recently moved to a new house, and a new studio space. In the old house, he plugged his guitar amp into the wall outlet when recording guitar, and unplugged it when not in use. He never had trouble with hum or noise from the amp. In the new house, he plugged in the same amp with the same guitar, and there was a nasty hum present. Fortunately, he had a power conditioner, and once he plugged his amp into it, the hum was virtually eliminated. Apparently, the power in the old dwelling was a bit cleaner than in the new place!

There are power conditioning options for any size studio and any budget. Furman has been protecting gear with power conditioning for years. The Furman power conditioning line begins with the **M8**, an 8-outlet power conditioner that's great for small project studios that don't have racks full of multi-thousand dollar pieces of gear. The top of the Furman line is the **AR-PRO**, a 14-outlet voltage regulator with input and output meters. It converts voltages to the North American-standard 120 volts, making it ideal for touring bands or recording studios.

ETA Systems PCI-1000NA

ETA Systems has nearly 30 years under their belt providing protection from surges, sags, and other electrical anomalies. ETA conditioners range from basic protection and power distribution to pro-level line conditioning. The top of the ETA line is the **PCI Series**, with enough power-stopping capabilities to withstand 6,000 volts and reduce it to safe operating levels for your gear. ETA's power management devices contain high-energy surge diverters, low-impedance isolation transformers, and a power line noise filter ensuring safe and quiet operation.



ETA Systems PCI-402NA

Having long been a favored cable for audio professionals worldwide, it should come as no surprise that Monster also provides top-notch protection from power issues as well. From **PowerCenter Pro 800** surge protector/power strip for the stage to the rackmountable **Pro AVS 2000**, Monster Power will be there for you and your gear. Monster Power has units specially designed for protecting anything from home theater systems to your precious vintage analog gear to the techiest digital system.

Thus far, we've talked about things to protect your setup from inconsistent power. But what happens when there's no power? Enter APC and their line of uninterruptible power supplies. In addition to protecting your gear from surges and sags, APC systems give you time to safely save and power down your system, which can save you a lot of heartache. You know how frustrated you get when your word processor program crashes and you have to start from scratch on that letter you were writing? Imagine if you lost the album you've poured your heart into for the last year due to a blackout.

Power conditioning is important for any studio — from project to professional. Choosing a power solution that fits your individual needs can be tricky, especially considering the wide range of features and prices available. For assistance finding the power management device that's right for you, call your Sweetwater Sales Engineer.

Monster ProAVS2000



- >> Furman Sound M8 • Sweetwater price \$50.97
www.sweetwater.com/m8
- >> ETA PCI-1000NA • Sweetwater price \$799.97
www.sweetwater.com/pci1000na
- >> ETA PCI-402NA • Sweetwater price \$379.97
www.sweetwater.com/pci402na
- >> Monster Pro AVS 2000 • Sweetwater price \$1699.95
www.sweetwater.com/proavs2000



In the last issue of *SweetNotes*, I covered Sweetwater University and the intense 13 weeks of technical, systems, and business training every new Sales Engineer must complete (in addition to the extensive experience they have before joining our team) prior to officially starting their careers in our sales department. In

this column, I'd like to hit on the ongoing training here at Sweetwater.

Each Monday morning, we have a Sales Lab for the Sales Engineers who don't have years and years of tenure here and any other employees who want to attend. "What in the world is a Sales Lab?" Good question! As you may have read in my columns before, we don't believe in what I call "secret ninja sales tricks" here. Our goal is the long-term patronage of our customers and we know we can only accomplish this by developing healthy business relationships and working closely with you to ensure your satisfaction. The orientation of our Sales Lab is really a high-level and real-world grounded customer service "boot camp."

I tend to view Sales Lab as a practice field for our Sales Engineers where they

can put into practice the skills they learn in Sweetwater University and work out the kinks without putting an extremely valuable customer relationship at risk. This is accomplished by extensive role-playing. No, not of the *Dungeons and Dragons* variety (yikes!); rather it means talking through a huge variety of possible customer situations to ensure that every Sales Engineer is able to work in the most professional and customer-friendly manner possible. Remember, these folks typically come from deep recording or performance backgrounds and don't have years of "sales" experience (which is actually a good thing because it saves us from having to break bad habits that might have been developed by working in other sales environments). Role-playing is a bit uncomfortable for some of the Sales Engineers at first, but it isn't long before they get in the groove and start looking forward to the Sales Labs as an opportunity to improve and grow their customer service skills. My take on this is if a Sales Engineer isn't reasonably at ease talking through a "practice" conversation, there's no way they are ready to get on the phone with an important customer! Practice, preferably perfect practice, makes perfect! (How's that for a little alliteration?)

With very experienced Senior Sales Engineers running these sessions, years and years worth of customer service experience is shared and fine-tuned during Sales Labs. The hard work done in the Sales Lab is critical in ensuring consistent quality and what we like to call the "Sweetwater Difference" every time you call us.

Rock and Roll!

Jeff (VP of Sales)

ACID Pro

When Sony Media (then known as Sonic Foundry) introduced ACID software, it set the computer-based music world on its collective ear. There was simply nothing like it: being able to, in real time, speed up or slow down loops or raise or lower their pitch to suit the song was completely revolutionary! No longer were you forced to work at the tempo or key of your loops, or to rely on non-real-time pitch transposition or time-compression/-expansion software. You could "draw" your loops onto the screen, set up a tempo and pitch map, and hit play — that's all it took to compose great sounding, flexible music using loops.

But ACID wasn't without its limitations. For all its loop production power, it was a while before the software had MIDI capabilities, and so on. Still, newer versions of ACID have been fully featured, and the latest release, version 6, completes the addition of DAW features to ACID Pro, completing ACID's transformation into a music production solution.

ACID FUNDAMENTALS

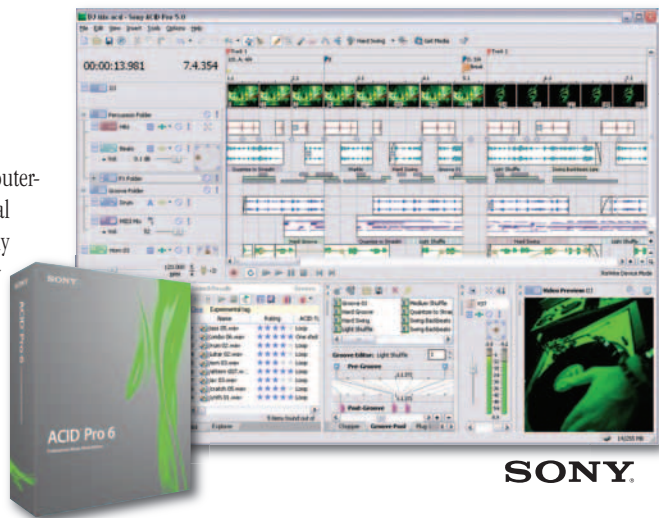
ACID Pro 6 has incorporated tools called "Fundamentals" that allow your creativity to run rampant. You now have unlimited audio and MIDI tracks at your disposal, real-time pitch and tempo matching, and impressive new Media Manager tools that let you search, tag, and catalog loops by genre, instrumentation, BPM, or other customizable attributes. Along with 24-bit/192kHz multitrack recording, editing, and mixing, version 6 adds VST and ReWire support. There's also comprehensive MIDI support, with inline MIDI editing, a Drum Grid mode, and track envelopes for MIDI controllers, plus DirectX effects that can be automated and tempo-synced.

IT'S GROOVY, MAN

The new Groove Mapping and Groove Cloning function takes your existing loops and morphs them into fresh, new sounds. It also lets you beat-match loops and vocal tracks nondestructively in real-time. You can quantize dissimilar loops to a common groove and even extract grooves from existing loops and apply them to other samples. ACID Pro 6 even lets you reverse audio events during playback, opening up a world of possibilities for experimenting and remixing on the fly. Speaking of remixing, the Beatmapper tool lets you remix and combine music loops with existing songs, plus, the Chopper tool creates amazing drum fills, stutters, and DJ-style effects.

Sony has taken ACID to new heights with this latest release — the program has truly become a comprehensive music production studio! Call now to find out more about what ACID Pro 6 can do for you and your music!

>> **SONY Acid Pro 6 • Sweetwater price \$379.97 • www.sweetwater.com/acid**



SONY



For the last dozen years or so, there are two software programs that have always been on my Mac. During that time, a lot of software has come and gone, but I can't imagine firing up my Mac and not having access to my two "go-to" applications: Adobe Photoshop, and, because I have long been doing sound design, BIAS Peak. In the late 1980s, if you wanted to edit samples on a Mac, you used Sound Designer or Alchemy. Sound Designer evolved into today's Pro Tools, while Alchemy simply faded away. Thankfully, a small company called BIAS (Berkley Integrated Audio Software) picked up the slack with the introduction of Peak 1.0.

Aside from normalizing and truncating samples or creating loops in various formats, Peak offered additional DSP capabilities like Phase Vocoder, Rappify, and Reverse Boomerang, which allowed users to mangle and mutilate even the most pedestrian sample into something totally unique. Peak also had a very user-friendly interface and could communicate via SCSI with almost any hardware sampler. As plug-ins became more powerful and diverse, Peak added Premiere, VST, AudioSuite,

and TDM compatibility. But even then, few of us suspected what the folks at BIAS were cooking up.



That's enough history, because we're here to talk about **Peak Pro XT 5**, the most powerful Mac-based stereo audio editor on the planet. (If you don't require all the bells and whistles, BIAS also offers Peak LE 5 and Peak Pro 5.) For power users like myself, Peak Pro XT version gives me all the tools I need to create beautifully polished audio, even from less than pristine sources.

Everything starts with the Peak 5 application, which now offers Audio Units support, comes with 25 VST plug-ins, and includes useful new tools like a precision sample rate converter, a tape-style scrubber, a superb set of CD authoring tools, and even a sample-based impulse response reverb. But that's just the tip of the iceberg, because the package also includes what BIAS calls the Mastering Perfection Suite. This includes the aptly named SoundSoap applications: Soundsoap 2 is perfect for quick fixes, like removing low frequency rumble or 60Hz hum, or zapping annoying clicks and crackle. There's even a high-frequency enhancer that can breathe new life into old recordings. SoundSoap Pro is for those tougher fixes, where you need to go in and surgically repair your audio before mastering. Both work beautifully.

The Suite also includes GateEx (a gate and expander module), SuperFreq (equalization), RepliQ (which lets you sample the frequency response of a source recording, then apply it to your current project), PitchCraft (for pitch transposition or just subtle pitch correction), and Squeeze (3- and 5-band compressors). The last piece of the puzzle is Reveal, a real-time analysis tool that includes an oscilloscope, spectral analysis, a Phase Scope, and more.

The bottom line is that Peak is at the top of the food chain when it comes to creating the most polished audio on a Mac, and I would be lost without it.

Fender Super-Sonic - Breaking the Sound Barrier

You hear this phrase all the time: Focus on one thing and do it better than anybody else. As far as we're concerned, specialization is for insects. Today's guitarist needs to be able to write, arrange, perform, engineer, produce, and do so in a variety of genres. So, when it comes to choosing an amp, you deserve the same versatility and level of excellence you demand of yourself — and you'll find it in the new Super-Sonic series of amplifiers and cabinets from Fender. Built for the pros or guitarists who are simply militant about their tone, these amazing all-tube amps put classic Fender clarity and modern high-gain distortion into one rich-sounding amp that you'll be proud to stand in front of on stage. Oh, and don't be surprised in the studio when you hear the engineer say, "The mic loves this amp!"

WHAT'S ON THE MENU AT SONIC?

The Super-Sonic series features a 60-watt, all-tube amp that's available as a 2 x 12" combo, or a head with matching cabinets in either a 1961-style blonde cover with oxblood grille cloth, or Fender's new "Black Pepper" cover and grille cloth. Choices abound; you can also select from 2 x 12" or 4 x 12" cabinet formats. The cabs feature high-grade Baltic birch-ply construction for increased resonance and Celestion Vintage speakers. Whichever way you go, head or combo, the cool points come from a vintage channel that features two selectable voices based on the original circuits of Fender's "sparkly-toned" 1965 Vibrolux and the thick-toned 1966 Bassman.

I WANNA' BE A BASSMAN TOO

We know what you're thinking: "Perchance this be not the amp for me, for I must rock with reckless abandon." Be at peace noble sir or madam. Remember that the original design of many popular rock amps was based (so to speak), on the Fender Bassman — Fender was at the root of it all. With the Super-Sonic, riding shotgun with the dual-mode vintage clean channel is a drive channel featuring a dual-knob, cascading-gain preamp for more sustain and compression than the law should allow. Once you hear the high-gain channel in action, it'll put to rest any notion that this amp is anything but a rocker's dream.

Along with that distinctive Fender tone that makes you say, "That's it!" another major plus is that you don't need to get clearance from LAX to fly this thing. An amazing variety of sounds abound with a just a few twists from a very simple set of control knobs. Think of this amp as a sonic butler, ready to serve any tone you desire — all you need to do is ask.



- >>> Fender SuperSHDBI • Sweetwater price \$979.99 • www.sweetwater.com/supershdbi
- >>> Fender SuperS212eBI • Sweetwater price \$489.99 • www.sweetwater.com/supers212ebi
- >>> Fender SuperS112BI • Sweetwater price \$1049.99 • www.sweetwater.com/supers112bi
- >>> Fender SuperS112Bk • Sweetwater price \$1049.99 • www.sweetwater.com/supers112bk

Hearing Voices

If you've ever played live, you know one of the most challenging things can be accurately hearing yourself, especially if you're a singer. After all, how are you supposed to sing on pitch if you can't hear what you're singing? With the VoiceSolo Series, TC-Helicon intends to put singers in control of their personal monitoring.



The **VoiceSolo Series** comprises three different models — one passive and two active — that provide individual volume control and superb sound for performers. The passive model, the



VSM-200P, is easily added onto your existing monitoring system while providing individualized volume control. Signal is brought into the VSM-200P via two Speakon combo jacks with two other Speakon combos for outputs.



A step up from the passive model is the **VSM-200** active monitor. This baby sports a 1/4" line in as well as an XLR input with a preamp. The one-knob simplicity of the VSM-200P carries over to this version, which could easily replace your current power amp and wedge monitor with a single, easy to carry unit.



The big daddy of the VoiceSolo series is the **VSM-300**, which merges great sound with control over the mix coming through your monitor. Thanks to the included

breakout box, multiple sources can be run into the VSM-300 and then passed through to the house board. Pretty nifty! Plug in a VSM-300 and you've got a portable, self-contained PA system. All three of the VoiceSolo units mount easily to mic stands, or sit on the floor in straight or kickback fashion for maximum placement versatility. The VoiceSolo Series is a big step forward for performing musicians and singers!

- >> TC Electronic VSM-200P • Sweetwater price \$199.97 • www.sweetwater.com/VoiceSolo200p
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Massenburg Masterclass

George Massenburg reveals insights to Sweetwater Sales Engineers at a recent training session

By Mitch Gallagher

I'm new to mastering, and want to get the most out of it. The problem I'm having is that my mix's bass sounds boxy and I quickly lose control of the sound. — Ken S.

GM: Mastering is more about critical listening than anything else. You know there is more than one device in your signal path to which you should listen critically. Then there's your room. Do you know its transfer characteristics? Do you have a low ceiling? If you haven't addressed it, you'll have a problem at the low frequency determined by the floor-to-ceiling distance. Do you use reference-quality converters? Is your analog path clean?

I keep reference recordings to which I compare the project I'm working on to see if I'm in the ballpark. Are you saying your mix sounds "boxy" on your monitors? Or when compared with someone else's record? Or

when you're reaching for the low end you want to hear, your sound gets "boxy"? I assume you're starting with a low-frequency shelf EQ, which is the least colored type. The next step is to listen for particular resonances that are coloring your sound and address each with a relatively narrow EQ dip.

Sometimes great distinction — hearing each instrument clearly — is difficult to achieve, even though I'm not using many instruments. It's commonly created with EQ, but certain studio setups pose more of a challenge. I'm aware of the acoustic problems of home recording, but I wonder if there is another step to relieve crowding before having to EQ everything. — Sam B.

GM: I've been trying to steer sessions into cutting live tracks — getting back to real performances, with live vocals. Not surprisingly, the choices I make in the studio room have a huge impact on the sound. I'll move musicians around, listening to how they sound in one spot versus another, making sure everyone can hear well without phones. If I've got live drums I'd sooner tweak the live sound than put the signal through a box down the road. And tweaking the guitar amp has a huge effect on what's coming from the leakage.

I'm often working in one room these days. But as much as I like the ambience in our studio, we'll very often use baffles to help control the drums (which we've been cutting live).

I agree it's difficult, and it's never a push of a button. Maybe this is one reason much of the industry seems to have gone over to the dark side, where the only concern is loudness.

What are the differences between regular and mastering equalizers? What are the advantages of external effect processors over plug-ins? — Shaun M.

GM: Big questions. First and foremost, mastering EQs are repeatable to a very precise degree (think 0.1dB and $\pm 0.1\%$ frequency), both within the same unit and between units.

Beyond that, it depends on what kind of material you're mastering. Mastering EQs may be anything you say they are, as long as you can get back to a particular setting (for many reasons, but mainly to be able to recall a setup for more work, or for re-purposing down the road).

The big reason I go to an external processor these days is to run analog devices, which, in fact, I do quite often, especially with compressor/limiters. Some plug-ins work well, some hardware boxes work well. It depends on the sound you're after.



Do you have a question for George Massenburg? Send it to mitch_gallagher@sweetwater.com

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Meet Mike Picotte

Name:

Mike Picotte

Position at Sweetwater:

Sales Engineer

Start date:

February 4, 2002

Education:

Bachelors in production and new technology, Northern Michigan University, Marquette, Michigan.

Where are you from originally? Gwinn, Michigan

What was your occupation before coming to Sweetwater? Interned and did some work for MCA Records, then did post work.

Why did you first apply for a job at Sweetwater? This is a company on the cutting edge of technology that never stops moving forward.

Technical strengths: Pro Tools, plug-ins, preamps, live sound.

Favorite music-related website: The DUC (Digidesign Users Conference).

Instruments you play: Keyboards and drum programming.

Gear you own: Digidesign Pro Tools|HD3 Accel, 192io, MIDIio, Pre, Command8; tons of plug-ins and virtual synths, PreSonus Central Station, Tannoy Precision D monitors, TS10 sub; Focusrite ISA428, Red 7, OctoPre; Grace 101, Aphex 207, Avalon U5, Yamaha Motif ES6, several mics but I love my Royer R121s!

Family info: Wonderful wife Hannah, and a Cocker Spaniel, Hunter.

Other stuff we should know about you: I love playing basketball and watching the Pistons, working out, watching movies, and mixing music.

Personal motto: Only those who risk going too far will ever know how far they can go.

Favorite magazine: *Sound on Sound*, *Men's Fitness*

Real-life hero: My parents.

Guilty pleasure of choice: I absolutely love Milk Duds.

How would your boss describe you? Focused and reliable. Ready to tackle any task.

How would your best friend describe you? Hopefully as their best friend!

What did you dream about doing for a living when you were growing up? Becoming a film producer/director.

What in your life best prepared you for the work you do here at Sweetwater? Having a background in the studio. I can relate to what a lot of our clients are doing or trying to accomplish. Also, when I was younger I worked summers in a pro shop at a golf course dealing with customers all the time. Having a background in business and communication helped me out a lot.

What do you enjoy most about being part of the Sweetwater Team? I get to work with music gear and talk to people about it every day. This is an environment where you are always learning new things and get to watch the technology move forward. We get our hands on the latest products and recommend solutions to people every day. I never have two days that are the same.

What is the most important thing you've learned at Sweetwater? We work as a team. Helping others out only comes back to help you out.