

GODIN RADIATOR HEATS THINGS UP!

— SEE PAGE 13



SWEETNOTES

MUSIC TECHNOLOGY DIRECT

EARLY SPRING 1999 ISSUE

GRACE design

Mic preamps that reveal all the detail in your music!



Grace Design Model 801

Sometimes I know what I'm talking about. Sometimes — and it's hard to admit — I don't. This is a case where, simply put, I had to be reeducated. What am I talking about? Well, let me start at the beginning . . .

If you're like me, you might feel that the industry is already over-saturated with high tech, high performance equipment, most of which carries a high dollar price tag. So what on earth do we want another high quality mic preamp for, right? Well, that thought crossed my mind immediately when I got assigned to do this feature. But after actually trying out the new mic preamps from Boulder, Colorado-based **Grace Design**, then talking to the people there, my attitude changed in a hurry. See the company only builds three products instead of the dozen or so that many other companies feel compelled to design and produce. Then they back up each of these products with a five year warranty on parts and labor, so you can bet that they feel comfortable standing behind their gear. So my job here is to fill you in on what I learned about the company and its products.

First up is the TEC Award-nominated Grace Design **Model 201** two-channel microphone preamplifier (\$1895 list). In their own words, the 201 is "built with a passion for quality, inspired by the love of music . . . a timeless combination of art and technology." I can't argue with that, particularly after recording with one. It uses the exact same circuitry as the Model 801 eight channel microphone preamplifier (which I'll be discussing in a few minutes) in a smaller, less expensive package. The Model 201 sports immaculate circuitry combined

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TC Electronic M3000 Studio Reverb

Stunning DSP Power at a surprising new low price

Those of you who currently own (or dream of owning) your own project studio are aware of the staggering advances made in DSP (Digital Signal Processing) technology over the past two decades. The industry started with simple hardware (metal springs and plates), but is currently at the level of pure software. And while the prices

for the latest technology keeps falling, the quality keeps going up. Now we have some pretty good reverbs at extremely low prices, as well as several extremely sophisticated reverb processors at reasonable prices.

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SPECIAL WINTER NAMM ISSUE

If you didn't get to Los Angeles for the music industry's biggest bash, Winter NAMM, you can join our own insider for a trip through the halls of the LA Convention Center and get a first-hand report on everything that's new for 1999. It's almost like being there yourself (except your feet won't hurt). — **SEE PAGE 3**

Digital Performer 2.5

Mark of the Unicorn has done it again! They're not only shipping a red-hot version of their best-selling Digital Performer software, but they are also giving all of us a quick, sneak preview of Version 2.6 in this issue which will ship as a free upgrade to purchasers of 2.5! Exclusive details are inside! — **SEE PAGE 6**

What's in the box?

Could it be your new digital studio? Alesis has put together everything you'll need to start recording in your own studio right now: LX20 20-bit recorder, Studio 24 mixer, Nano processors and even all the cables. And all at a super price you can't pass up! — **SEE PAGE 10**



ALSO INSIDE: E-mu Ultra Samplers, Roland Innovations, New Gear from Mackie, Digidesign Update, AKG C4000B Mic, PRS Dragon 2000, Shure KS32M and much more!

GRACE DESIGN MIC PREAMPS

A timeless combination of art and technology

— *Continued from Page 1* with the most carefully selected electronic components. Then the folks at Grace Design put this into a nice-looking, highly durable chassis that will, in all likelihood, last a lifetime. When I spoke to them, the Grace Design people made it perfectly clear that they are dedicated (maybe even a bit



obsessed) with the integrity of the complete circuit design, not just with singular details such as "Class A" or "Discrete."

Grace Design has actually been building custom audio products for the recording industry for over ten years. The company is staffed by a team of dedicated engineers with a ton of real world recording experience. The technology for their products has evolved through a process of extensive listening, field testing and refinement. With countless hours at the bench and constant collaboration with recording engineers, they have created some of the finest microphone preamplifiers available: The Model 201, Model 801 and the new LunaTEC V2.

We are now clearly in the digital age and even many of our less expensive mics have extended frequency response beyond 20kHz, plus they are able to handle super fast transients, as well as high SPLs. Our digital recorders are, for all intents and purposes, capable of recording anything we send them. So that brings us to the mic preamps. While many mixers have mic pres that are light years beyond what was available only a few years ago, they still are basically mixers. To get a clean stereo signal to a two-track recorder, you need a dedicated mic preamp with a signal path that is absolutely transparent. The **Model 201** is just such a unit.

Features of the 201 include: A fully balanced and transformerless design; fast, musical transimpedance amplifier architecture; no electrolytic capacitors in the signal path; 24 position gold contact rotary switch gain controls; 10dB trim control; +48V phantom power, 20dB attenuator and phase reverse on each channel; convenient two-color LED lights (green for signal and red for overload); high current output capable of driving long cable runs and loads down to 50 ohms; an ultra low noise internal toroidal power supply. Frequency response? From 20Hz straight out to 300kHz!

As mentioned, I used this machine for some live recordings of a small combo using a pair of great mics and the end result was an incredibly accurate, finely detailed representation of the original performance. I can't say more than that, other than saying I was impressed. If you won't take my word for it, Pro Audio Review did a bench test on the 201. Their conclusions? The Model 201 is "built with care and attention to detail. This is as apparent visually as it is with test equipment and in listening. The test data shows a unit that competes with the finest, most transparent solid state mic preamps."

If you need more than two channels — let's say you want to record direct to your 8-track MDM — the Grace Design **Model 801** (\$4495 list) is an eight-channel microphone preamplifier built with you in mind. All the nice things I have already written about the 201 apply to the 801, except you have more channels, of course. From the immaculate circuit topology and carefully selected electronic components to the CNC-machined T6 Aluminum chassis, you won't find any compromises here. Combining eight microphone preamplifiers in one chassis gives you a new world of possibilities. With the recording industry increasingly dominated by the use of MDMs, the 801 is the perfect front end for your DA-88, ADAT, etc. In the world class production facility or the project studio, the 801 reliably delivers reference quality tracks. Also, its durability and compact design meet the strenuous (sometimes ridiculous) demands of the remote recording environment. For anyone who's looking to print the best possible sounds

to tape, the Model 801 makes recording direct the norm, no longer a luxury reserved for just one or two tracks. Once again, let me quote from Pro Audio Review: "(There are) no shortcuts, compromises or cheap parts here . . . Unlike digital gear that changes quickly and is almost disposable, a good piece of analog equipment like this can be used for years . . . The Grace Design Model 801 is a class act, and I am simply going to have to buy at least one for my own audio tool kit."

As great as these preamps are, the one that has me the most excited and counting my so-called "disposable income" is the **LunaTEC V2**. The reason is simple: As a sound designer and a person that makes at least part of my living doing remote recording, the V2 (\$1495 list) is designed to deliver incredibly accurate, musical microphone preamplification (on the same level as the 201 and 801) in a truly bombproof, portable package. That's right — a battery-powered mic pre that can compete head-to-head with the "big boys." Exactly what I need, and at a price that's surprisingly affordable considering its performance and portability. If you've ever cursed the built-in mic preamps in your portable DAT (and I know I have), the V2 is going to have you wishing they had built



this little beauty a lot earlier. Talk about compact design; this unit measures just over 8" wide by 5" deep and less than 2" high! Yet it still has features like MS decoding; dual position high pass filter with 6 or 12dB per octave slope; phantom power; fully balanced transformerless inputs (XLR) and a machined aluminum chassis with recessed front panel to protect controls. Whew! And all covered by the company's five year parts and labor warranty.

Well, you've heard enough from me (you didn't need to agree that fast!). It's time to talk with your Sweetwater Sales Engineer for more information and your surprisingly low price on the Grace Design preamp that's exactly right for you. — **Jim Miller**

TC Electronic M3000 Studio Reverb



— *Continued from Page 1* The latest entry from **TC Electronics** the **M3000 Studio Reverb Processor** (list \$2495) featuring VSS-3 Technology (Virtual Space Simulation), is in the second category. It combines some new ways of creating sonic room simulations with some features never before available in a reverb box in this or any price range. Like the very successful M2000 processor, the M3000 is based on TC's award-winning Dual-Processing system, which gives you numerous options by combining the M3000's different preset-algorithms. The Dual-Processing system can be thought of as two separate machines connected by a flexible routing system which uses Serial, Parallel, Dual-Input, Dual-Mono, Linked, and Preset-Glide (Dynamic Morphing!) routings. The M3000 comes with 300 professional factory presets using the VSS-3 technology and other well-known (killer) TC algorithms including: VSS-Reverbs, VSS-Gates, Rev 3 (direct from the M5000), Reverb C.O.R.E. (straight from the M2000), Delay, Pitch, EQ, Expander, Compressor, Chorus/Flanger, Tremolo/Panner, Phaser, and De-Esser.

These VSS-3 algorithms, used together or separately, bring some exciting features to your reverb palette like: True Room Realism, which gives the ability to simulate the sonic characters of real rooms; Spaciousness, which allows you to create wide and natural sonic images while avoiding the "wall of reverb" syndrome; Piano Correctness, which keeps the signal 100% free of pitch modulation, even when performing extensive effects processing; Modulation Free Decays, which keep the signal 100% free of sound deteriorating modulation; Add On Modulation, allowing you to add Modulation if desired as a special effect; and Early Reflection Control, which allows you the ability to simulate all the relevant parameters of true ambience.

Combine these features with full MIDI control over the parameters and you have a world-class reverb.

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international music market



By David Stewart

Los Angeles. City of Angels. The Sweetwater Sound NAMM crew descended on it Wednesday morning to find crystal clear skies and cool temperatures. Coming from Fort Wayne in January, we were quite content with the day's high of 62 degrees. Heck, for us it was balmy. Given our track record, this trip was relatively uneventful. The fun began as soon as we touched down in LAX. We were swept away in a limo to the big JBL open house at their factory. From there it was one open house or party after another. The entire long weekend was jammed with events we needed to attend. Just coming up for air long enough to grab a hotdog for lunch was often a challenge.

Trade shows are a good excuse to party for some people. For us, it's more like rigorous work. We want to be sure we are on top of our game and bringing the latest and greatest tools to our customers at the best possible prices. As

is always the case it must be pointed out that this NAMM Show report is by no means a complete reference of everything going on at the show. It is way too big to cover in its entirety. A more complete report is available on our Web site (www.sweetwater.com). We must also remind you that because these products are new, details are still changing. Specifications, pricing, features, and availability dates will no doubt be updated in the next few weeks or months as some of these new products get closer to being released. All prices given are retail — Sweetwater prices (of course) will be lower.

ALESIS. They look about ready to ship their **DG-8** (\$2,499). Basically it is a QS-8 with active bi-amped speakers in a home cabinet. There are some new features, such as stretch and concert tuning modes. The TCR card has now become **ADAT Edit** with the price reduced to \$399. They are billing it as a simple solution to people who want to edit ADAT tracks without a lot of fuss. The package comes with software (Emagic's Micrologic AV) and drivers for Mac and PC. They have a very nice looking powered subwoofer, the **S-1**, with 250 watts into an 8" woofer for \$499. They also introduced the **ADAT StudioPack** (\$1,999 — see page 10 for full details). Their new **A13** (\$499), 8-channel A/D converter with optical out, is supposed to ship in May. While Alesis hasn't said it, the writing is on the wall that this will become a front end for ADAT Edit, which will turn it into a stand-alone hard disk recording platform.



ARBORETUM SYSTEMS showed a new pitch processor and harmonizer called, oddly enough, **Harmony**. It uses a graphical interface to fix errant pitches and add harmony parts to audio tracks. The software is in public beta and will be priced at \$349 when it ships later this spring.

BITHEADZ. Riding on the tail of their tremendously successful **AS-1** and **DS-1** software synth and sampler, they announced **Voodoo**, a software drum machine for the Mac that plays samples and MIDI files triggered from the keyboard, MIDI controller or MIDI application running on the same CPU.

CAKEWALK. **Studio Mix** (\$899) is a new bundle from them that includes **Cakewalk Pro**, and a very cool new motorized control surface made by Peavey. The Peavey surface has audio inputs and outputs for handling basic studio routing and recording needs (you supply your own sound card). They also showed **AFX-3**, a new plug-in for

designing room ambience based on actual models of rooms. You design the room shape, surfaces and location of your sound source on screen, and it does the rest.

DBX showed their new **Quantum** (\$1,999), a single rack space, digital 24-bit / 96k mastering processor. It includes programmable multi-band compressors and dithering with noise shaping along with 48-bit internal processing.

DIGITECH will be adding a digital output to the **GSP 2120** guitar processor and will also make the foot controller an option, since studio users don't always need it. The new price will be \$899. A non-digital out floor version called the **RP-21** (\$849) will ship soon.

EARTHWORKS showed their **SR77** (\$599), which is basically a Z-30X in a new, more durable, black casing.

EMAGIC. They introduced **Waveburner**, CD Mastering software for Macintosh, and **Audiowerk 2** (\$299), which is a two-channel version of the Audiowerk8. It will come with Waveburner and Micrologic AV. Their first USB MIDI interface, the **AMT8** (\$499) will be an 8 x 8 configuration with no time code capabilities.

E-MU / ENSONIQ. A rack mounted version of the

popular **Fizmo** keyboard was shown (\$999), while the E-mu **E4XT Ultra** samplers up the ante again on sampling instruments. These 128-voice polyphonic units feature extremely fast new processors that provide accurate triggering of all 128 voices (most keyboards get pretty sloppy up there) and come with software to do SCSI transfers and control between your favorite PC or Mac. Depending upon configuration, prices range from about \$2,800 to about \$3,600. The new **Avista 8800** home piano has a brand new 88-note keyboard that feels great. It is available in a cherry or rosewood cabinet, has Ensoniq's normal complement of piano related sounds, and a disk drive. **Paris 2.0** was shown in action. It will ship with new features such as interleaved file importing and exporting, a crossfade toolbar, and ASIO drivers. Interestingly, they swear they have tested it extensively on the newest blue G3 Macintosh com-

puters with complete success. So if you need a good hard disk system now and can't wait for everyone else to get it together on these new machines Paris may be just the ticket.

EVENT. The first thing they did was hand us a floppy with the final gold version of the Layla drivers for Mac. They are also up on their Web page.

FOCUSRITE added

the **Compound** (\$899) to their platinum line. It is a full-featured compressor limiter with a bass expander that adds downward 2nd harmonic distortion. It really does wonders for restoring squashed bass tracks.

FOSTEX. Their new addition to the CD recorder market is the **CDR-300** (\$1,425). It reads and writes CDR and CD-RW, has a full-featured I/O, and has several erase modes for CD-RW discs. They also introduced the **D-108** (\$1,495) 8-track hard disk recorder. It comes with a 5.2 gig hard drive and can write .WAV files, so it's easy to interface with your PC.

GENERALMUSIC. The **SK-880** and **SK-760** are new keyboards based on the SK-88 and SK-76 respectively. These instruments offer 16Mb of ROM sounds, (over 1200 sounds) and 192 new accompaniment styles on board. There will also be "Power Station" versions of both instruments which will feature a hard disk drive

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TASCAM's TM-D4000 (left) is the new mid-level entry in their digital mixer line and (right) just a few of the latest Sony products on display

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Continued from Page 3 pre-loaded with songs, styles and new sounds. New versions of the **Equinox** synthesizer were also shown; the **Equinox 76** being an extended keyboard version of the Equinox 61, while the new **Equinox 88 Pro** offers all of the standard features, but also includes the Piano, Rhodes and Wurliizer sounds and physical modeling technology from the PRO2 piano.

GIBSON showed a new 15-watt class-A tube amp with reverb, a blond **ES-135** (\$1,700), and a new hollow body **Les Paul** with F holes. They also had some 1959 40-year anniversary Les Pauls in various states of completion on display.

HBB had a new CDR up their sleeves. The **CDR-850** (\$1,299) has XLR analog and all the major digital I/O capabilities. The very sophisticated menu systems allows for all sorts of specific control over its operation, including the alleged abil-



PRS Guitars always draw big crowds at NAMM

ity to "unfinalize" CD-RW discs. The **Circle 3** monitors will show up as the little brother to their Circle 5s. They have a 4.5" woofer and come in powered (\$895) and unpowered (\$449) versions. They also showed us a new line of tube gear they are distributing in the states. The **Radius Line** includes a four-channel tube mic preamp, two-channel tube EQ, two-channel tube compressor/limiter, and a tube mixer channel with EQ and compression. Prices start at \$789. The **Classic Line** includes even higher end versions of the devices above with the addition of a stereo tube preamp that has transformer I/O and a pentode tube doing the gain control. Sounds sweet. It is \$1,850. Both the Radius and Classic lines look and feel very sophisticated and expensive, yet are priced competitively.

KORG. Their slogan of "there is more than one way to groove" couldn't have been more true. The **EA-1** (\$499) drum synth and **ER-1** (\$499) rhythm synth produce modeled analog sounds that are quite nostalgic and powerful. There's nothing like that buff analog low end.

LINE 6. The new **Boxer** amp should be really popular. It appears to be based on a sound set similar to what is in their Pod module. A single 12" version is \$399 and there will be a 2 x 10" version for \$467.

MACKIE showed 20 new products at the show. First there were new "Pro" versions of the CR1604, 1402, and 1202 mix-

ers with newly redesigned mic preamps (see Page 8). They also introduced a killer new series of powered mixers, all with dual graphic equalizers and built-in digital effects. The **406M** (\$699) has six channels and 500 watts. The **408M** (\$799) has eight channels with 500 watts, and the **408S** (\$899) is the same, but with stereo 500 watt amplifiers. The **808M** (\$899) has 8 channels / 1000 watts, and the **808S** (\$999) has two 1000 watt amps. These are PA heads, but they also introduced desk style boards in 12, 16, and 20 channels with even more features. As amazing as all these mixers are, they were somewhat overshadowed by Mackie's new PA speakers. The most notable was the **SRM450** (\$799), a 2-way bi-amped system with a 12" speaker and long throw horn. The **C300** (\$399) is the unpowered version. The **MAS 1530** is a 3-way tri-amped system with super high fidelity. The **SRS 1500a** is a powered 600-watt 15" subwoofer designed to be used with the above systems. Then there's the new **Fussion Series** line of speakers which includes the **Fussion 3000** (\$4,499), a tri-amped 3-way system with a total of almost 2000 watts of power. On the power amp front they have added the economical **M800** (\$599) to their line with 275 watts per channel at 4 ohms. Last but not least, they unveiled **Version 2.0** software for the D8b digital mixer. We saw this version last Fall while it was still cooking. There are some amazing new features, as well as many improvements to existing features and yes, there are even some bug fixes. There is a new screen that shows the entire configuration of one channel at a glance with some very sexy looking graphics. This new version also makes the board and all of its interfacing fully 24-bit.

MARANTZ. Amidst the plethora of low priced CDR machines, they have taken the high road with the new **CDR-640** (\$1,800) mastering CDR. They claim greatly improved A/D converters and a 1MB buffer for true frame accurate recording. They claim this is potentially the only true "press and forget" machine on the market, meaning it is stable and robust enough to make perfect CDs every single time. Of course it can do CD-RW, as well.

MARK OF THE UNICORN gave attendees a sneak peek of a new feature called POLAR, which will be built into **Digital Performer 2.6** when it ships (see Page 6 for more).

MARTIN. They always have tons of beautiful guitars on display, but one was especially nice this year. The **Steve Howe Model** (about \$2,500) is probably the best playing acoustic guitar I've ever laid my hands on. Expect these to be in extremely short supply through the entire production run.

NOVATION. On their own now as a separate entity from Music Industries, their **SuperNova ASM** (Analog Sound Module) can now be had in a tabletop version for \$1,499. This version sports two audio inputs and the same audio engine as the rack version, but has 12 voices, 6 parts, and 6 outputs.

OPCODE showed several products to go with their DATPort. **OpticalPort** is an optical to USB converter that also has two 1/8" analog inputs for easy entry into the computer from analog sources. **DATPort Plus** is just like DATPort, but will have analog converters as well. **MIDIPort 64** (4 x 4) and **MIDIPort 128** (8 x 8) will add to their line of USB MIDI interfaces started by MIDIPort 32 (a 2 x 2 interface announced re-

cently in inSync), but both will have SMPTE capability.

OVATION. The electronics in many of their new guitars now include a digital tuner with muting and balanced outputs. They have also introduced a round sound hole version of the famous Adamas guitar.

PARKER made some huge waves with their MIDI equipped **NiteFly** guitar. I don't mean MIDI equipped like you have to have some interface to do MIDI. I mean there is a standard five pin MIDI DIN connector right on the guitar for you to plug into the module or keyboard of your choice. They also showed the new **Spanish Fly** (no jokes please) nylon string guitar.

PRESONUS is about ready to ship their **MP-20** (\$649), two-channel microphone preamp. It has exactly the same I/O and features as their popular M80 unit with the addition of a DI input on the front of each channel. They have lowered the price of the hugely successful **Blue Max** compressor to \$199.

Paul Reed Smith Guitars showed off a beautiful new raspberry color that is just stunning. They also have a new piezo pickup system in many arch top models that allows the player to recreate even more realistic acoustic sounds. This is the best sounding system we've heard to date. Also, in the "take your breath away" department were the limited edition **Dragon 2000** guitars (\$2,000 — see Page 15).

ROLAND. Oh man. As usual, they had tons of new gear to show us. The most notable development, and one of the undisputed hits of the show, was the announcement of their digital mixer line. We've even whipped up a special Web page to cover them in detail (go to www.sweetwater.com/reports/winter-namm99/roland/). Bringing up the budget end of this amazing new product line is the **VM-3100** (\$995) with 12 channels, 8 buses and built-in stereo effects, and **VM-3100Pro** (\$1,295) with 20 channels, 8 buses, and 2 stereo effects processors. The company also announced several enhancements to the VS Series software and hardware (covered on Page 7 of this issue).

Rounding out their VS and VM lines are new digital moni-



Tube gear? It's still hot, as evidenced by this entry from Tube Tech

tors. The **DS-90s** (\$95 a pair) are bi-amped, self powered monitors with a 1" tweeter and a 6.5" woofer. They have analog and digital inputs. The really interesting part is that the new studio monitor emulation algorithms in the VS and VM products are designed with these in mind. The idea is that with these monitors and one of those machines it is possible to simulate just about any monitoring system available. They also debuted the **SRV-3030** (\$695) digital reverb with digital output option (add \$300), and a new COSM modeling bass amp called the **DB-500** (\$999), the **DJ-1000** (\$895) DJ mixer, a new **DR-770** (\$495) drum machine, **GT-3** (\$495) guitar effects processor with "auto riff" feature (you have to hear this to believe it),

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An important message to all our valued customers

If you've called us recently and had a tough time getting through or didn't get the return call you were waiting for as quickly as you expected, there's no doubt that you were frustrated. We certainly understand, because we were just as frustrated ourselves!

We want to make one thing perfectly clear: Nothing has changed — or will change — at Sweetwater as far as our commitment to you, the customer goes. We do want to sincerely apologize to everyone who has experienced a glitch in our usual level of service. We've worked hard trying to make sure it didn't happen, but sometimes the best intentions are not enough. Here's what is going on . . .

We don't have to tell you that we are growing at an astronomical rate. Each week we get several hundred new customers, as well as several *thousand* more calls. And frankly, we just don't have enough people yet to handle this kind of response. We've been working on it as our highest priority: You no doubt have seen all the ads we have been running lately to hire additional Sales Engineers. But finding the right people — those special individuals that can represent this company and serve the needs of our customers in the manner we require — that has been very difficult. Our sales force is the best in the business and, unfortunately, it's hard to find people of this calibre quickly.

However, we can say now that there *is* light at the end of the tunnel. Since the first of the year we have hired over 30 new employees, with most of these going to our sales department, and the rest going to our service, technical support, shipping and other departments. So, over the next few weeks, you should experience a substantial improvement in our ability to answer your calls and respond quickly to your needs. In fact, you can even help speed this process along!

As most of you know, right from Day One of Sweetwater's existence, we have always believed in putting the customer's needs first, and we've always believed that our company (or any other) is only as good as its people. That's why we have gone to such lengths to find the best people in the business to staff our company.

We've always been honest about the fact that working here at Sweetwater can be a blast, but it is also hard work: Taking care of each customer's specific needs isn't easy. Working here requires a tremendous amount of knowledge, the ability to effectively communicate, plus an

extraordinary dedication and commitment that goes way beyond what other retailers expect of their employees.

The reverse side of that coin is that our people have a tremendous opportunity for advancement, personal growth and, best of all, almost an unlimited income potential. Here at Sweetwater, hard work is rewarded by a very nice paycheck. How often does that happen today? How many of you feel like you are getting paid what you are really worth?

Still, even though we have what is unquestionably the best sales force on the planet, because of our tremendous growth, we are still actively searching for qualified individuals to join our team. So here's where you can help.

Do you know someone who has a music technology background? Someone with exceptional people skills? Someone that you personally might feel comfortable going to for advice about some technical issue. If so, we want to know about them. And here is the best part: *If we hire them, we will pay you \$250 just for the contact.* That's right, cash in your pocket just for passing along a name and phone number. Couldn't be easier.

Maybe you feel like you personally could fit into our organization. If you have the experience and desire, we want to hear from you. Even if you feel you don't possess all the knowledge we might require, that's okay. If you work well with others and have really good communications skills with a basic working knowledge of our industry and are willing to learn, don't hesitate another minute: Call us!

We hope this clears things up and gives you a better understanding of why you may have experienced some problems getting the personalized service we have always offered — and will always provide in the future. We do apologize for those problems and thank you for your patience. We promise: Things will be back to normal (or even better!) very soon.

One other quick note: We also need your help in updating our data base. If you are moving, planning a move or know a friend who has moved, we need the new address. We absolutely hate seeing copies of *Sweet Notes* returned because of a bad address. Put enough of them together and that's a tree we could have saved (although we do use paper that contains a high percentage of recycled materials). So if you possibly can, get us up-to-date on your whereabouts. That way you'll never miss an issue of *Sweet Notes!*



Q: My K2000R (3.54J) is connected to my master keyboard, which is connected with a sustain and foot controller which sends MIDI Volume (CC#7). My master keyboard only sends on MIDI Channel 1. Therefore, I set the Local Keyboard Channel in my K2000R to 1. Now I go to Setup Mode and create a new Setup. I want my foot controller to only send MIDI Volume to the first Zone in my Setup. Zones 2 and 3 should not be affected by the foot controller. But, when I play my Setup and use the foot controller, the sound of Zones 2 and 3 completely disappear as their MIDI Volumes are set to a very low value.

It must be a software problem, because I've tried different master keyboards and the problem appeared in every combination. I'd be very grateful if you could give me any kind of hint concerning this problem as it's very problematic for live performances.

A: We let Daniel Fisher, Director of Soundware Engineering and resident Kurzweil guru answer this one: You'll be pleased to know that this is not a software bug, nor is it a serious problem. Setups are designed to take MIDI signals that are on the Local MIDI Channel and duplicate them on the other Zones' MIDI Channels. So, when you send CC#7 (MIDI Volume) on Channel 1 (the Local Keyboard Channel) you get CC#7 on the other two MIDI Channels as well.

Here is the solution: If you EDIT your Setup and look at the right side of the screen, you'll see: ModWhl, Ft.Sw1, Ft.Sw2, CPedal, Slider, and Press. These represent the Controller Messages that the Setup *can* re-map to a different Controller Type. Notice that "Volume" is *not* one of the Controller Messages that can be re-mapped. But CPedal (Continuous Foot Controller or CC#4) is!

So, all you need to do is set your master keyboard's Foot Controller to send CC#4 (Foot) instead of CC#7 (Volume). Then go to Zone 1 of your Setup and set CPedal to "Volume" (just type "7" then ENTER). Now go to the other two Zones and set "CPedal" to "Off" on each Zone. Et Voila! Now your Foot Controller only effects Zone 1. If you want your Foot Controller to also do Volume when you're in the Program Mode, simply go to the MIDI Transmit Page and set "CPedal" to "Volume."

Q: When I make a CD of my music using my CD burner hooked to my computer, the music is not as loud as commercial CDs. I have tried normalizing the file but I still do not get music as loud as commercial CDs. How can I get these hot levels?

A: It's actually simpler than you might think, though you'll still need to buy one more item for your studio (but one you'll use for a long time). You need to run your audio through a level optimizing program (Waves L1 is just one example) or use a hardware product like the TC Electronic Finalizer. These programs and processors typically use very sophisticated software or circuitry to bring the very short peak transients (those spiky bursts you see on your screen) down to a manageable level (in simple terms limiting these peaks) so that all the rest of your material can be "normalized" to achieve a hotter signal.

Digital Performer

Great new features debut in Version 2.5...plus a special sneak preview of Version 2.6!

Last November, the guys from MOTU gave the entire Sweetwater sales staff a sneak peek at **Digital Performer 2.5**, the latest update in MOTU's furious upgrade schedule for their industry-leading audio sequencer package for Macintosh. We were, as usual, greatly impressed. The good news is that Version 2.5 is now shipping, and it's packed with a host of incredible new features.

At the NAMM Show, MOTU gave us another sneak preview — this time it was a look at **Digital Performer Version 2.6**, which is due a little later this spring. MOTU tells us that Version 2.6 will be sent as a free update to all 2.5 users! So it's never been a better time to get into audio sequencing with (or crossgrade to) Digital Performer.

New Built-in Waveform Editor.

Check this out: Digital Performer now has a complete, full-featured waveform editor onboard. It's like having \$400 worth (or more!) of waveform editing software built right into the program. Talk about value — and ease of

use. The editor is seamlessly integrated into Digital Performer. It's easy to get to, and it has all the trappings and accoutrements (bet you didn't think we could spell that) you'd expect in a high end waveform editor. In fact, to our eyes, DP's new editor appears to rival the leading stand-alone editors out there right now. Sure, it has all the basic features you'd expect in a waveform editor, but this editor goes way beyond the basics, giving you advanced features like 24-bit audio support, unlimited zooming and "zoom back", 32-bit plug-in processing, automatic crossfades on all edit boundaries, sample loop editing, the ability to open multiple editors at once, and much more.

One of the cool things about DP's new editor is that you can apply the processing of any real-time MAS plug-ins that ship with DP, as well as any third-party plug-ins you have installed, such as the Waves Native Power Pack or PPII, Antares AutoTune and the DUY plug-ins. The same goes for any Premiere-compatible plug-ins, such as BIAS SFX Machine or the Opcode Fusion series. Basically, any of the plug-ins you have available in Digital Performer can be applied "destructively" in the new Waveform editor. As an example, instead of using generic normalizing to maximize the level of an audio file, you could apply DP's new MasterWorks Limiter plug-in (more on this in a bit) or the Waves L1 Maximizer. This is waveform editing for the 21st century.

When you combine Digital Performer's new waveform editor with Digital Performer's ability to import/export samples directly to a sampler connected to the Mac, you've got the most powerful sample editing solution available in an audio sequencer. There is simply nothing out there that even comes close to 2.5's sampler support. If you've got a sampler, but you don't have Digital Performer yet, call your

Sweetwater Sales Engineer without further delay.

MasterWorks 64-bit mastering plug-ins. One of the most distinguishing things about Digital Performer over all the other audio sequencers is the massive collection of real-time effects plug-ins that are included with the program. In past **Sweet Notes** issues, we've talked a bit about the more notable Digital Performer plug-ins, like the smooth-sounding eVerb, the incredible PreAmp-1 tube preamp simulator, and the totally unique Sonic Modulator.

In Version 2.5, MOTU adds two incredible new plug-ins: the MasterWorks Multi-Band Compressor and the

MasterWorks Limiter. As their names imply, these plug-ins are specifically designed for mastering. By using them at both the submixing stage and on final master output, you can achieve the kind of broadcast-ready, album quality sound you might pay top dollar for in a mastering studio. We heard these plug-ins in action, and they sound every bit as good as similar plug-ins that are sold separately for hundreds of dollars. They even have 64-bit native processing, which is double the normal processing resolution. These plug-ins are so useful, you can employ them throughout a mix.

MasterWorks Limiter. This is a "brick wall" limiter, ensuring that your level never goes even one sample above any peak level you choose. But don't let the term "brick wall" give you the wrong impression: This plug-in provides advanced, silky smooth look-ahead limiting. But

even if you're not heavily into the theory and operation of limiting, you can slap the MasterWorks Limiter on your main outputs in Digital Performer, choose a preset, set the peak level to 0 dB, and then rest assured that your main output signal will never go above digital zero — a critical thing to achieve in the digital world to prevent clipping. It's nice to have this sort of peace of mind.

In essence, the MasterWorks Limiter does all the work so that you don't have to. On the other hand, if you are heavily into tweaking parameters, the MasterWorks Limiter has all the control you want, including bit-depth quantizing, dither and noiseshaping.

What exactly is "bit-depth quantizing"? Well, this simply means that you can reduce or expand the number of bits (as in "16-bit" audio). If you want, you can make the output of the MasterWorks Limiter be full 24-bit audio, 16-bit audio or any bit depth you want between zero and 24!

Want 21-bit audio? You got it! (Not sure why you would, but it's there if you do.) Lower bit depths, on the other hand, can actually be used for special effects. If you're into extreme grunge, ala Trent Reznor, try 4 or 5 bits — yeeeeeouch! This is a surefire way to seriously munge your audio. For Web and multimedia material, use 8 bits.

Another great feature in the MasterWorks Limiter is its level histogram: This portion of the window shows a bar graph of the average energy of the signal going through it for the entire frequency spectrum. In essence, this display lets you see a "sonic fingerprint" of the average energy of your mix. This one tool can be indispensable when mastering a CD because you can compare the average energies of each track to make sure they aren't mismatched. You wouldn't want one track to be heavy in the high frequencies, then have the next track be mostly heavy in the low end.

Another great way to take advantage of the histogram is to run your favorite mixes through it to see what their "sonic fingerprint" looks like. You can then match that graph shape in your own recordings using the MasterWorks Multi-band Compressor, which we'll be discussing next.

MasterWorks Multi-band Compressor. This provides three separate bands of compression with graphic, adjustable crossover points between the three. Each band has its own unique settings, giving you tremendous control over the entire frequency spectrum of the signal you are compressing. You can even solo or bypass the individual bands to hear exactly what's going on in each band. The first time you try this, you'll be amazed at how much you can hear in terms of what's going on in each frequency range, and how they balance each other. Even if you are running 16-bit or 24-bit audio files through this plug-in, its 64-bit processing ensures the smoothest possible results.

Precision metering with numerical Peak and RMS value displays make this plug-in a precise mastering tool. But again, this plug-in is so useful, you can use it throughout your mix, not necessarily just on the main stereo output.

New graphical EQ plug-ins.

Digital Performer has had 2, 4 and 8-band parametric EQ plug-ins for some time. But in Version 2.5, these three plug-ins have been given a complete facelift, with a graphical display that shows a single EQ curve over the entire frequency spectrum made up of the settings of all of the EQ filters in the plug-in. So you get a

very clear idea of exactly what the EQ you are applying looks like. Best of all, you can click on the EQ points right on the curve and drag them. As you do, numerical values appear so you can see precisely what you're doing as you drag. There are five different types of EQ filters; if it's a notch filter, the bandwidth of the filter is represented as two vertical lines when you click on it. You can then drag the lines left and right to adjust the width of the filter, again with an

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POLAR's hot-looking interface: a new feature in Version 2.6



The user-friendly interface of the MasterWorks Compressor

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Roland innovations

If you read our NAMM Report in this issue, you know that **Roland** has introduced some significant enhancements to its existing VS-Series Multitracks, as well as unveiling a number of new instruments and modules. In this article, we'll just be touching on a few of these items, but we will be back in upcoming issues with more — you can bet on that!

VS-SERIES DIGITAL STUDIO WORKSTATIONS Let's start with the VS upgrades. We don't have to tell you that Roland's VS line of multitrack recorders has pretty much taken the music market by storm, shipping more than 100,000 units in just over two and a half years — an unprecedented feat by any standard. Not content to simply keep shipping the same best-selling units, Roland has actually improved and enhanced all three.

With the release of the new **VS-840EX Digital Studio Workstation** (\$1395 list), Roland's most affordable VS-Series workstation gets some major new features, including ultra-powerful new effects, easier operation, a new guitar tuner, and two-and-a-half times its previous recording capacity using the new internal Zip 250 drive. This allows the VS-840EX to record up to 187 total track minutes at 44.1kHz, depending on recording mode — more than enough for the storage of several songs on each inexpensive Zip250 disk.

The VS-840EX also offers new onboard effects including Mic Simulation, Acoustic and Bass Guitar Simulation, and Bass Multi-Effects. It even has a dedicated guitar input with a new chromatic guitar/bass tuner built-in. And here's great news for existing owners of VS-840s: The new "EX" features will all be available via convenient hardware/software upgrades (designated the VS-840-UP1) which can be installed by an authorized Roland Service Center (which Sweetwater is, of course).

There's also the new **VS-880EX** (\$2245 list) with a software upgrade (v. 2.0), which includes Roland's revolutionary COSM Speaker Modeling technology, perfect for use with the company's **DS-90**



Looks like a vintage synth, but designed to groove: the EG-101

Powered Monitors. COSM Speaker Modeling allows VS-880EX users to access a variety of sonic "models" of the world's most popular studio reference monitors, from high-end active models to those "white-coned" studio standards, as well as simulations of TV/radio speakers and more. The user simply switches between these sonic models and sends the output from his workstation to the inputs of the DS-90s. Using the digital connection, there's no signal loss and, instead of having to switch between multiple pairs of monitors at mixdown, users can immediately hear how mixes sound on a variety of different "speakers." The VS-880EX also includes a new "Mastering Tool Kit" algorithm which gets audio mixes ready for optimum CD recording via processing like multi-band compression.

The flagship **VS-1680's** (\$3195 list) new "**V-Xpanded**" software upgrade gives owners of that recorder 18-track capability, allowing mixdown of up to 16 tracks to two additional tracks for mastering — a capability which was not possible with the original VS-1680 (or any other recorder). To further its mastering capabilities, the VS-1680 now also includes the "Mastering Tool Kit" effects algorithm with split-frequency compression. In addition to other user interface improvements, the VS-1680's upgrade also includes the new COSM Speaker Modeling for use with the DS-90s.

THE EG-101 GROOVE KEYBOARD. Let's face it: For those that dig it, dance music is totally addictive. People want more of it — but they also want to hear new sounds that will move them in new ways. For most dance music composers, that's Roland's job. No other manufacturer offers so many cutting-edge dance-oriented products. Here's a case in point: The new **EG-101 Groove Keyboard** (\$995 list) an easy-to-use workstation with onboard sampling and radical live performance capabilities including the infrared light-sensing D-Beam controller.

This 49-note velocity sensitive keyboard's ultra cool, retro synth styling hides the digital capabilities within, which include 448 dance-oriented sounds and 12



drum kits — the same sound set as the popular MC-303 Groovebox — as well as built-in chord recognition, and a full complement of 64 ready-to-use dance music styles, from techno to hip-hop, Latin, pop, and more. Existing styles can be easily modified in a number of ways, and up to 64 User styles can be created and stored.

An onboard phrase sampler with mic input and SP-202-style effects enables recording and looping of as many as 16 different samples, which can be triggered directly from the keyboard and tweaked using pitch shift, time stretch, ring modulation and filter effects. The auto sync capability allows the substitution of these samples for existing drum sounds, which can then be locked together with onboard styles and realtime phrase sequences. Getting a sense now of what this baby will do?

Of course, live performance is where the EG-101 truly shines. Three knobs give the user realtime control of filter sweeps and resonance effects, slick panning changes that sync to BPM, and reverb level and depth control. Hundreds of phrases can be triggered and combined via the Realtime Phrase Sequencer, while the onboard Arpeggiator produces scorching rhythmic patterns with just a single key or chord.

Particularly impressive to an audience is the futuristic infrared light-sensing D-Beam controller, which allows control of cutoff and resonance, tempo adjustment and more — all via a performer's hand and body movements! Imagine what your performance might be like using this astounding technology. Designed with an eye toward stand-alone use, the EG-101's 30-watt stereo amplification system features a two-way bass reflex design, providing superb bass-heavy sound. It can also be connected to any audio system or PA for earth-shaking bass.



MC-80: A full-featured sequencer and much more

MC-80 MICROCOMPOSER. For those who have lamented the passing of the dedicated sequencer, Roland is bringing it back in style as only they can with the **MC-80 Microcomposer** (\$1295 list). The MC-80 is a dedicated MIDI sequencer offering realtime control and playback of sequences, enhanced audio resolution, and the portability, durability and easy setup necessary for today's live performers and composers. The MC-80 is the base model, while the **MC-80EX** includes the high-octave VE-GSP Voice Expansion Board.

For live performances, both models offer operational flexibility not found in dedicated MIDI sequencers until now. A Mark/Jump function allows song markers

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MACKIE

WE CHECK OUT THE LATEST GEAR FROM WOODINVILLE, USA

Take a look at the Winter NAMM Report in this issue (Page 3) and you'll see that the **Mackie Designs** folks have introduced a lot of new products. In this issue, we will be taking a look at those that are already available or just beginning to ship. In future *Sweet Notes* issues we will take closer looks at all the rest of their new gear.

Mackie's new SRM450 is so precise, so powerful and so easy to use, they actually refuse to call it a PA speaker. They finally make it possible for you to get the same audio quality you might experience with high-end studio monitors in a live sound environment. And since Mackie's the one unleashing the world's first active (bi-amplified) sound reinforcement monitor, you can be sure it's affordable (\$799 list).

The SRM450 sound reinforcement monitor brings truckloads of power to any event, eliminating the need for external amplification and costly electronics (such as processors). In fact, this new Mackie loudspeaker — the first in a series of speakers developed with RCF, a company with fifty years of speaker experience — uses technology and features found in systems costing thousands of dollars. Each unit sports built-in high output/low distortion monolithic FR Series 300- and 150-watt amps.

From beginning musicians to AV rental houses and everywhere in between, anyone who uses a PA will find the SRM450 to be the workhorse sound reinforcement solution. Everything you need for sound reinforcement aside from the mixer (and gee,

we know who makes those, don't we?) is in the SRM450. Take a look toward the top of this great looking monitor and you'll notice the UltraWide Dispersion horn driven by a high output, titanium compression driver. Designed to deliver high frequency sounds across a spacious horizon, the SRM450 can be heard clearly by every person in the audience. Left, right, or behind that big post all the way toward the back of the room — the crowd can hear it all!

Low frequencies? Those are handled by a 300mm servo feedback-controlled long throw woofer that can pump out the bass. What's more, the 450's equipped with electronic time correction, phase alignment and precision EQ, meaning that your sound is never, ever compromised. The highs and lows are smoothly blended by a precision 24dB/octave Linkwitz-Riley electronic crossover).

You won't break your back hauling it around, either, thanks to the high-impact composite enclosure. Handles on both sides and on top make it easy to carry. What's more, the SRM450 can be pole-mounted, flown, or even used as a floor wedge. In fact, the SRM450's asymmetrical geometry and wide-dispersion, studio-quality horn provide unobtrusive sight lines and optimized stage monitoring performance.

Mackie packed so much performance and versatility into the SRM450, you have to hear and see it for yourself. We guarantee: Once you do, you'll never have any question about who to trust your sound to. Imagine: Studio sound . . . live! So call your Sales Engineer for additional details and your special low pricing.

VLZ Pro-Series Mixers. You may think you've seen these Mackie compact mixers before, but these are completely new, redesigned versions of the **CR1604**, **1402**, and **1202** mixers. The "old" models were some of the most popular compact mixers ever, and if you're knitting your brows and wondering why Mackie would want to mess around with a good thing, we'd like to reassure you that while the VLZ Pro Series has a few nice extras, on the whole they kept much of it the same. And that includes the *very* affordable price. Mackie took what they learned from building the superior mic preamps on the Digital 8 Bus and



+22dBu line input handling, and distortion under 0.005%. This translates into absolutely stunning sound! Those of you who have worked with the original mixers will be very impressed by the dramatic difference; those of you that haven't had the good fortune of working with them will simply be amazed. What the new VLZ Pro Series gives you is nothing short of the rich, full sound of a premium studio mic preamp in an affordable, versatile compact mixer. All the models have fantastic protection from radio frequency interference, and Mackie even touched up the mixer with a new, clear silkscreen, making it easier for you to set levels. Besides that, the VLZ Pro Series gives you the same great performance at a great value that has made this series some of the most popular and praised mixers in the world. You get complete control over your audio across a huge range of applications from a mixer that has true staying power and consistent performance. List prices for the series are: \$1249 for the 1604, \$629 for the 1404 and \$459 for the 1202. Ask your Sweetwater Sales Engineer about the difference a VLZ Pro can make, and while you're at it, check out our super low prices, too.

M2000 Power Amplifier. In designing their M2600 Power Amp (\$1199 list), Mackie took a different approach than with previous amplifiers, specifically in the area of protection circuitry. Many power amps have a feature to protect your amp when it's driven too hard; the circuits kick in and the amp is saved from meltdown or implosion or turning into a killer robot or whatever. But there are two issues with protection circuitry that Mackie addresses with the M2600. The first issue is sound. When the protection circuitry turns on it can often make the sound worse . . . but we'll get to that later on. The second issue has to do with the whole notion



of driving a power amp too hard.

Sure, the protection circuitry kicks in, saving the amplifier from permanent damage and rescuing the job at hand from total sound failure. Sound quality is impaired, but that's what you get for driving your amp too hard, right? And there's the problem. You use power amplifiers when you need *power*. What's the point if they konk out in the heavy-duty sound applications that you need them for? It's like having a great car that you can't drive too much because the tires might suddenly lose all their air.

Mackie realizes that sound reinforcement isn't pretty, and that sometimes amplifiers get driven too hard. The Fast Recovery (FR) technology doesn't just anticipate that you might push the M2600 to its capacity — it knows you will! Usually, when amps are pushed too hard and the protection circuitry kicks in, your amplifier sometimes gets stuck in clipping mode instead of returning to its original performance — your sound actually gets worse! But the M2600 uses circuits which "activate" once the amplifier starts clipping, preventing saturation and high-frequency "latching" during overdrive. What all this means in plain language is that the M2600 provides super-fast recovery from bad sound. When you slip into overdrive (as you're bound to after a while), the M2600 bounces right back with very little damage to your overall quality of sound.

Mackie's Fast Recovery technology is the highlight of the entire FR Series of power amps, but it's never been featured in an amplifier with the unprecedented power and capabilities of the M2600. You get a maximum of 2600W through 4 ohms (2 ohms in stereo mode). That's a lot of power, and it's all very clean. There's also a variable high pass filter (10Hz to 170Hz) balanced, selectable thru-outputs; switchable to low pass outputs to drive

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This issue is always my favorite issue of the year since we get to write about our favorite unveilings at the Winter NAMM Show.

For me, the number one jaw-dropper was Parker's new **MIDIFly Guitars**. If you've read the Early Winter 1998/99 issue of *Sweet Notes*, you're already aware how much I love my Parker Guitar (serial # 13!) and how I felt that nothing could ever take its place. But try to imagine the same excellent NiteFly Guitar with both a MIDI In and MIDI Out jack. That's right, true MIDI, no converters needed, just one MIDI cable, any synth or sampler and you're on! You can see a picture of it in our 1999 New Products Directory.

Next, one of my all-time favorites is back and looking better than ever. **Roland** has retrofitted their factory and, after a long hiatus, is once again cranking out their famous strap-on MIDI controller. The newly remodeled **AX-1B** (\$595 list) has all the cool features of the old AX-1 including a 45-note, velocity sensitive keyboard, an Expression Bar which can send Mod Wheel or After Touch, a teflon-feel Pitch Strip for guitar-like bends and hammer-ons, Octave Up and Down buttons, a Transpose button, and a thumb-knob that can adjust Volume, Tempo or other MIDI Controllers. There's even Sequence Stop/Start buttons that allow you to control everything from the front of the stage (for



once!). Since 1993 I have never played a gig without my AX-1 handy; I just never know when I'll want to unchain myself from my rig and join the guitar player. And the new AX-1B now has an elegant Black and Gold styling that would even look good while you're wearing a tuxedo.

Also new at NAMM was **TC Electronics'** new **M3000 Studio Reverb Processor**. You can check out my exclusive report on Page 1.

All-in-all Winter NAMM was a very exciting show, but now it's time to start preparing for the '99 Summer NAMM Show in Nashville. It seems like there's always something new and exciting to learn about in this industry. If you've ever thought about joining us in this pursuit of music technology excellence, please give us a call (ask for Kristine) or sign up through our Web site. We're always looking for the best the industry has to offer. Maybe that's you!

Daniel Fisher is the Director of Soundware Engineering



THE NEW C4000B MIC: TOO HOT TO HANDLE?

Writers love to write. If you are a writer, well, you know what I mean. But sometimes our job gets tough. That's the case right now because I have to tell you about a great new microphone, the **AKG C4000B** (\$848 list). What's so tough about this assignment? Well, try describing sound quality in printed words. It's not just difficult, it's darned near impossible. Still, I want to stay on the editor's good side (I've been told he actually has one, though I have not yet seen it), so let's dive in, shall we?

First of all, I probably don't need to tell you about AKG, but a few of you may not know why the company has such a great reputation. For about 50 years or so, AKG has been one of the world's leading manufacturers of high quality microphones, so the company has accumulated special know-how in designing and manufacturing high quality electroacoustic transducers. Translation: These guys have seen it, done it and darn well know a great mic when they build one. Actually, more than 1,400 international patents have been granted to AKG, and over 300 of these are developments that have had a strong influence on the audio industry.

AKG mics are a synthesis of aesthetic styling and optimum functionality. Ergonomic aspects, the way a product feels in the user's hand, the choice of materials and finishes, weight and weight distribution, etc., are all major criteria for any AKG product design. Styling and innovation are also among the distinguishing features of any AKG product and have secured AKG a leading position in the international audio marketplace (gee, I feel like I'm writing one of those industrial documentaries here).

AKG calls the C4000B "The Universal Recording Tool." Why? Well, they say it is the only Dual Electret Large Diaphragm Transducer in the world, making it an extremely cost-efficient multipurpose microphone for acoustically demanding recording and live sound applications. I can simplify: This mic is red hot at a cool price. This design provides for three different polar patterns that are selectable on the microphone. Note that the C4000B is derived from the already famous **SolidTube**, but uses a transistorized impedance converter/preamp instead of the tube circuit. The capsules of the two microphones, however, are very similar in terms of sound character and quality.

Although the C4000B delivers your typical large-diaphragm sound, its transformerless output stage ensures exceptionally accurate low-frequency response and the affordable pricing makes the C4000B very attractive for home and project studios. With its selectable polar patterns, this mic is extremely versatile. With one of its patterns being hypercardioid, the C4000B can be used for live concert miking on stage. This makes the mic a very interesting proposition for musicians who want to use it both for live performance and recording in their own studios.

The C4000B has an exceptional price-to-performance ratio when you look at the microphone's features, specs, overall design, construction (an all-metal body), and standard accessories, which includes an H 100 spider type shock mount and external foam wind and pop screen. Features of the C4000B combine high sensitivity with extremely low self-noise. What's more, like most of today's top mics, this one can handle high SPLs that used to require dynamic mics. Three polar patterns are switchable on the microphone: Omni, cardioid, and hypercardioid and there's a preattenuation pad (switchable) and bass-cut filter (also switchable).

All of this tells you that this mic has a lot going for it at a surprisingly affordable price. But what does it sound like? Like I said, this is where it gets tough. Plain and simple, this is a wonderful sounding microphone. I've personally had a chance to use it for vocals, acoustic guitar, flute (thanks, Smitty) and even acoustic bass and always felt I was getting all the detail I could possibly want without unwanted coloration or artifacts introduced by the mic. Personally, I would add a C4000B to my mic arsenal in a heartbeat, simply because this is a lot of mic for not a lot of money. AKG has given everyone from the home studio owner to the live performer and even pro recording engineer a mic they can use without a second thought.

If this sounds good to you, give your Sweetwater Sales Engineer a call today for your special low Sweetwater pricing on what is sure to be one of the best selling mics of 1999. — J.M.

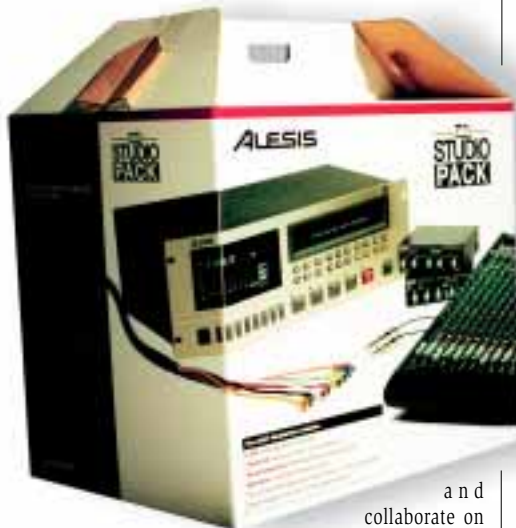


WE HAVE ALL THE HOTTEST PRODUCTS FROM ALL MAJOR MANUFACTURERS . . . IN STOCK!

Without the aid of a net, I am about to perform an incredible feat! I am going to read the minds of hundreds of thousands of musicians around the world — including yours! So if you would all be very quiet while I concentrate . . .

Aha! You are thinking of putting together your own home project studio! Impressed, aren't you. Well, I can't tell you exactly how I performed that bit of magic, but here's a little magic you can get your hands on for very little cash. It's called the **Alesis ADAT StudioPack**. This all-in-one recording studio setup retails at just \$2999, and includes everything you need for digital recording, mixing, effects and dynamics processing. The ADAT StudioPack even includes all the cables that connect the system, as well as an instructional video (that you'll actually enjoy watching) that offers plenty of helpful advice on setting up your recording studio and taking full advantage of its powerful capabilities.

The ADAT Studio-Pack starts with the Alesis **ADAT-LX20**, a true 20-bit linear recorder (yup, I said 20-bit!). The LX20 offers compatibility with all models of the world-renowned ADAT recorders and other equipment using the ADAT Optical format. Well over 100,000 ADATs are in use around the world, so no matter where you go or who you work with, you'll be able to trade tapes



and collaborate on music projects. Over the last eight years, dozens of top ten hits and Grammy-winning albums have been recorded on ADAT, so you'll enjoy the professional audio quality achievable with the ADAT LX20.

Even though the LX20 is the most affordable ADAT ever made, it offers the same 20-bit ADAT Type II digital recording format as the company's XT20 and flagship M20 recorders, making it capable of producing true professional-quality recordings. The LX20 is compatible with all ADAT-model recorders as well as peripheral devices like the BRC and all the third-party products. Using the same Optical Digital Interface and Synchronization Interface as other ADATs, the LX20 has five specialized locate points, which can be used with its Auto Play, Auto Return, Auto Record and Auto Loop functions to help you record quickly and easily. For standard analog interfacing, the LX20 includes sixteen unbalanced -10dBV inputs and outputs on phono (RCA) connectors. The LX20 also offers the ADAT Optical Digital Interface, which carries up to eight audio tracks at once completely in the digital domain and allows you to connect to other ADATs in a system or dozens of

adat STUDIO PACK

devices that use this innovative transfer protocol.

But how about mixing, effects and signal processing, you ask. The Alesis **Studio 24** recording console offers inline monitoring, so eight channels can be monitored and eight channels can be sent to tape at the same time without repatching your entire cable setup — a huge time and hassle saver. In fact, the Studio 24 is a great choice for any eight-track studio needing an efficient, low cost recording console with excellent audio quality. The Studio 24 provides eight input channels for mono audio sources, and four stereo input channels for dual-channel devices like synthesizers, along with two stereo groups for submixes. The Studio 24's eight hybrid/discrete phantom-powered mic preamplifiers are designed to meet the challenges of 20-bit digital recording, with excellent sonic quality, low noise and high headroom. Also, it provides eight individual XLR inputs, each with its own switchable direct output, making the Studio 24 perfect for applications that require you to route multiple audio sources simultaneously. I could go on and on about the features (the ultra versatile EQ, for example), but as usual, space is at a premium.

Naturally, you'll want some super smooth reverb to go along with your recorder and mixer, and so the StudioPack includes the Alesis **NanoVerb**. While it's capable of producing a great-sounding reverb, this unit also can be used to add delay, chorus, flange, multieffects and more to your mixes. And though it can produce some truly exceptional sounds, it's also a breeze to use.

The **NanoCompressor** completes the StudioPack with simple, highly-effective dynamics processing and limiting. No, it doesn't have every one of the bells and whistles of those high-priced units, but let's be honest here, most of us don't need all the features those big bucks models have. We want something that sounds sweet, does the job and is easy to use. And that's the NanoCompressor.

What's more, the ADAT Studio-Pack contains all the cables you need to hook up the entire studio system. These include two eight-channel RCA

snakes to send audio between the ADAT and the Studio 24, two dual 1/4 inch cables to send signals to and from the NanoVerb, and an insert cable for connecting the NanoCompressor to the mixer.

If the thought of setting up your own recording studio is a bit daunting, keep in mind that the ADAT StudioPack comes with a free instructional video that takes you through a step-by-step tutorial. Simple enough for anyone to understand (even me!), the StudioPack video tells where to plug in each cable, explains the use of each component, and gives you advice on the best ways to begin using your new recording studio.

If all this sounds pretty good (and it sure does to me), wait until you call your Sweetwater Sales Engineer and find out just how low your special Sweetwater pricing is on this super versatile, pro quality studio package. Honest, you'll smile ear-to-ear when you find out just how affordable this system is. So why wait? Call your Sales Engineer now and get ready to perform a little magic of your own.



In this issue of *Sweet Notes*, I'd like to continue our tour of a "week in the life" of a Sweetwater Sales Engineer. In my last column, I discussed our Sales Lab and exactly how we utilize this weekly class to ensure that our sales staff will represent Sweetwater in a professional manner and be well qualified to accurately assess and fulfill each customer's unique needs.

Tuesday, 7:45 AM – Product Demo. We always start our Tuesday Sales meeting off with a fifteen minute product demonstration by a member of our sales staff. Here's how it works: The person giving the presentation takes home a product (or products, depending on how technically deep the product is) a week or two before their scheduled demo and becomes an "expert" on this product. They might consult with the manufacturers or factory reps or they might utilize our in-house expertise and talk with our resident product experts or studio staff to gain additional insights on the product. The gear assigned for these demos are generally new releases just coming into our warehouse (often, we'll review a product before a manufacturer even has a chance to do a formal training session here or anywhere else).

The salesperson also creates handouts featuring key information for the sales staff including: Essential specifications, applications, competitive comparisons, warranty information and key user notes. This information is later entered in our inventory records so that the entire company has access to it when they pull up a product record for a customer.

Finally, they give a live demo of the product (with audio) to the sales staff, followed by a Q & A session. This demonstration serves several purposes. It provides our staff presenter the opportunity to get some hands-on experience with a new product and then present it to a very knowledgeable audience. They are evaluated on their performance and the results are discussed with them immediately following the meeting. This immediate feedback helps give them the tools they may need to improve their future presentations. Also, it provides our entire staff the opportunity to see and listen to new hot gear as soon as it hits the warehouse without having to wait for a scheduled factory training session.

Tuesday, 8:00 AM – Following the Product Demo, we move on to the "meat" of the meeting (no pun intended). Beyond the basic business an-

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E-MU SYSTEMS *Ultra* SERIES

E-mu Systems introduced the first Emulator in 1981, and it forever changed the world of electronic music. Now, nearly two decades later, the company is proud to introduce the **Emulator 4 Ultra** (\$3595 list), a professional sampling system with unrivaled speed, versatility and fidelity that allows you to create complex sounds and massive sequences like never before. The Ultra line of samplers feature new hardware, new software and a host of new options, giving you the ability to realize any sound imaginable.

Ultra Advanced Hardware. The Ultra Series uses a new 32-bit RISC processor, giving you super-fast MIDI response time, SCSI, DSP operations and sampling. All Ultra models are upgradeable to 128-voice polyphony (which is standard on the E4XT Ultra) and can address up to 128MB of RAM (the E4XT Ultra ships with 64 MB standard, the **E6400** (\$2295 list) and **E-Synth** (\$2895 list) Ultras ship with 16MB standard). With this combination of polyphony, memory capacity and blazing processor speed, you can trust the Ultra to deliver your most densely layered sounds and super-complex sequences with dead-on timing and pristine fidelity.

Ultra Featured Software. The E4 Ultra ships with the new EOS version 4.0 Operating System which offers a host of breakthrough features such as E-mu's "Beat Munging" technology (more on that later!). Also new to EOS 4.0 are substantial improvements to the editing functions for faster and more intuitive loop point placement, enhancements to the sequencer, and the ability to import Akai S-3000 format sample libraries.

EOS 4.0 also comes with EOS Link, a Mac or PC software application that allows you to control the Emulator right from your computer desktop. Combined with Gallery's EOS Browser and EOS File Assistant software, you can now fully integrate the E4 Ultra with your computer to catalog your sounds and transfer samples, presets and multimode setups

between your E4 Ultra and various storage media. The new EOS 4.0 software supports hard drives up to 18GB, which means your vast sound library can be on-line at all times.

Ultra Versatile Upgrades. E-mu also offers versatile new hardware upgrades for the E4 Ultra, like the 16 output / 8 input ADAT card which allows you to have 16 outputs, all in the digital domain, for easy digital studio integration, as well as 8 digital inputs for sampling from ADAT or flying in vocals or sound FX to be manipulated with the E4 Ultra's powerful DSP engine. Need rapid access to onboard sounds? The new 32MB Flash memory boards give you the ability to store sounds in non-volatile Flash memory for instant recall, and the 32-bit, 32-channel R-Chip FX card will blow your mind with advanced FX and

cutting edge DSP operations (FX card is scheduled to begin shipping this Summer). With ten expansion ports (seven internal / three rear panel), you can customize your E4 Ultra with upgrades that are custom tailored to the way you work. The E4 Ultra is an ultra-smart investment that will evolve as your music and needs change.



E-mu's revolutionary E4 Ultra ships with a ton of breakthrough features including "Beat Munging" and more

Ultra Accessible Sounds. The E4 Ultra ships with a complete sound library on CD-ROM—9 discs in all with over 2GB of sounds, an incredible value that gives you instant access to some of the world's greatest sounds. And if access to the incredible Emulator Sound Library isn't enough, the E4 Ultra reads AIFF and .WAV files from floppy, and is compatible with the Roland S-700 and Akai S-3000 / 1000 / 1100 sound libraries, allowing you to play your old (but still cool) favorite sounds.

Ultra Hip. The E4 Ultra introduces "Beat-Munging," a new real-time DSP tool that analyzes your drum loops and phrases to automatically determine the BPM and perfect loop for your sample. Beat-Munging also allows you to change your loop's time (i.e. from 4/4 to 7/8), tempo, swing and

move and switch beats within your loop, all in real time. Beat-Munging gives you unprecedented rhythmic control over your audio and may radically change the way you create and manipulate loops and grooves. Either way, you will only find this breakthrough technology in the E4 Ultra.

Ultra Choice. You can choose from three different E4 Ultra models depending on your needs and budget. For those who demand the best, there is the E4XT Ultra, E-mu's top of the line instrument. If you need a sampler with great built-in sounds, there is the E-Synth Ultra. For those looking for an affordable way to take advantage of all the power the Ultra series offers there is the E6400 Ultra. Both the E-Synth Ultra and E6400 Ultra can be upgraded to full E4XT Ultra status by adding the user-installable options.

Ultra Smart Investment. Here at Sweetwater, we have always believed that purchasing an E-mu sampler is a smart investment. If you purchased an E4X, E4XT, E6400 or E-Synth Rack, you'll be pleased to know that you can upgrade your rackmount sampler to Ultra status with a processor and software upgrade, turning your already powerful Emulator investment into the most advanced sampler in the world at a very reasonable price. Just one more reason to choose an E-MU sampler.

Ultra E-mu. In addition to its many new features, the E4 Ultra delivers all of the qualities that you have come to expect from E-mu: Pristine sound quality, unsurpassed filter technology, user-friendly operation and a philosophy of versatility and upgradeability that results from 18 years of sampler development.

So at this point, your next step should be perfectly clear. Call your Sweetwater Sales Engineer for additional information and your special pricing on an E-mu Ultra!

SHURE[®] KSM32 STUDIO CONDENSER MICROPHONE

The scene is the Audio Engineering Society Convention in San Francisco. The event is the unveiling of a brand new microphone designed and manufactured by **Shure**, a company with a phenomenal 72-year history of building solid, durable, high performance audio products to serve the needs of recording engineers and working musicians around the world.

The crowd is hushed. Anticipation is great. In the back row, somebody nervously chews a fingernail. Tension mounts. Then suddenly, inexplicably, without any explosions or even a laser show, the Shure **KSM32 Studio Condenser Mic** is presented to the waiting audience. There are some oohs and ahhs. A few want to reach out and touch the cool champagne-colored housing of the full studio version, the model KSM32/SL. Still, the question in everyone's mind is perfectly clear: Will this great-looking microphone live up to the standards established over many decades by a company known for its quality products?

Aw, get real, would ya! Shure doesn't build microphones that don't perform because, well, nobody would buy them. So you just have to know that the KSM32 is a winner. Designed and built based on years of Shure research and development, the KSM32 is a side-address, cardioid condenser mic outfitted with Class A, transformerless preamp circuitry. This virtually eliminates crossover distortion and brings improved linearity across its entire operating range. Its embossed, high-compliance, gold-layered, Mylar diaphragm provides extended low frequency response while improving environmental stability. The low mass of this ultra thin (just 2.5 micrometers) diaphragm enables it to accurately reproduce the transient response of any sound source.

The KSM32 incorporates a 15dB attenuation switch for managing extremely high SPLs. Performance is further enhanced by its extremely low self-noise (less than 13

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STATE-OF-THE-ART: DIGIDESIGN STYLE

You'd think that after they've practically defined the computer-based audio field, Digidesign might take a long vacation. But the recent flood of Digidesign news seems to indicate that they're continuing to develop innovative new technology at the same pace and with the same skill that's kept them at the front of computer-based digital audio for over a decade. The exciting products and bundles once again set new standards in computer-based audio, providing the DAW veteran with greater options and introducing the novice to the ease, efficiency, and power of working with digital audio. Finally, there's also some slightly disappointing news, but we'll save that until last. . .

First up are the **Quiet Drives**, or Digi Drives, hard drive units designed especially for the Pro Tools user. You're going to need backup, and the Digi Drive gives you a 10,000 RPM, 9GB hard drive and the speed, capacity, and reliability to handle your most complicated and ambitious Pro Tools projects. Though they're designed for use with Pro Tools, you can also use the Digi Drives in any hard drive recording system; the self-contained construction of these hard drives lets you use the drive in different recording facilities without needing a proprietary dock. Up to four Digi Drives can be clipped and locked together. For stand-alone case enclosures, there's a rack mount option. And all of the above isn't even the cool part. The cool part is that these Digi Drives, or Quiet Drives, are very . . . well, they don't make much noise. Unlike other hard drives with this kind of power, the Digi Drive features Digidesign's patented enclosure that makes it one of the quietest hard drives you can find. Absolutely essential for Pro Tools users!

Digidesign's software bundles are famous for providing incredible power and function at a fantastic value, and the **Project II Studio Bundle** is no exception. Buying comparable hardware would cost you a fortune! The Project II Studio Bundle includes the Project II audio card, one of the finest direct-to-disk recording systems available. This little card can make a mammoth

difference in your recordings. The Project II card's "Direct I/O" eliminates the lousy input/output that can make your recordings sound amateur. The result is fully professional sound. You can work in 16-bit or 24-bit, and it's also totally upgradable to a higher Pro Tools system.

Three other Digidesign "classics" are included in the Project II Bundle: The Sample Cell II Plus card, the Logic Audio AV, and Masterlist CD to burn your CDs when you finish recording them. And although the bundle comes with Logic AV, you can use any sequencer you like. Comprehensive recording and editing, MIDI, sampling, CD burning — The Project II Bundle does it all for an incredible price. The Project II Bundle has only been out for a short time, but it's incredibly popular. An excellent mix of quality, function and affordability!

Another great package that really outdoes itself in price-for-value is **Windows Toolbox**, a low-cost, all-in-one recording solution for your studio. Previously available to Mac users, this "new" version of Toolbox is fully compatible with Windows 95/98. It includes the AudioMedia III card, easily one of the most powerful, versatile cards in the world of computer-based audio. With the Audiomedia III card there's no project your computer can't handle. You get complete recording, mixing, and editing power for music production and multimedia projects. It's fully professional quality, and is compatible with a wide variety of software options. And as if the Audiomedia III card wasn't enough, Windows Toolbox adds Session Software (8 tracks of audio record/playback), Logic AV and Sound Forge XP to the package. You also get ACID Rock, a mind-blowing loop-based plug-in that will simply amaze you!

Speaking of plug-ins, there's also a new version of Amp Farm, Line 6's very popular guitar amplifier emulation TDM Plug-in. Amp Farm Version 1.5 emulates the special, signature tones of

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1999 WINTER NAMM REPORT

— Continued from Page 4 — a powerful new hardware sequencer, the **MC-80** (\$1,295).

So did they have any new keyboards, you ask? Of course! A new stage piano, the **RD-100** (\$1,495), and new **FP-9** (\$2,795) digital home piano were nice additions. The new **EM-2000** (\$3,195) is their most sophisticated auto-arranging keyboard to date. It includes their patented D-Beam and a Zip drive. The **EG-101** (\$995) Groove Keyboard looks like a lot of fun and sports a very cool retro look. The new half-rack space, 64-voice **JV-1010** module has the complete **JV-1080** and **2080** sound set on board (1023 patches before expansion), plus it has one additional expansion slot for the SRJV board of your choice. Is that all? No, but this is all the room we have.

SONIC FOUNDRY. They have a new bundle for mastering called **Mastering House**. It comes with Sound Forge 4.5, CD Architect, XFX-1 and XFX-2 plug-ins.

SONY. They have a new portable MD recorder, the **MZR-55**, which replaces the MSR-50. Miniaturization at work: This unit is hardly any bigger than a Mini-Disc. They also showed a dual Mini-Disc recorder and a Mini-Disc with CD player. Topping off the line was the new **MDSE-11** (\$825) pro Mini-Disc recorder in a single rack space with AES/EBU, S/PDIF, and balanced analog I/O. A "prosumer" version in two rack spaces, the **MDSE-58** (\$520) has RCA analog, optical, and S/PDIF coax connections. They also showed a new frequency agile, snap on wireless microphone transmitter. It will operate for four hours on two AA batteries and allegedly has the highest radiating output of any device in its class.

SOUNDTECH added a new portable PA to their line. The **AL-1W** (\$849) looks just like the AL-1 system, but adds a built-in wireless system for your convenience.

STEINBERG showed new versions of most of their products. Most interesting was their new "rocket powered" **Cubase**. It supposedly allows for real time interactive sequencing and performing over the Internet.

TASCAM. The new **DA-40** (\$1,399), a replacement for the DA-30MKII, looks great and should be shipping by the time you read this. Bringing up the PortaStudio end was the new **424MKIII** (\$599), which is basically similar to the MKII with a more

flexible mixer. They also introduced the **IFPCI-16** (\$599), a PCI Mac or PC card that supports 16 tracks of TDIF to and from DA-series multitrack machines. It is ASIO compliant and has DA sync ports for control over machines and sample accurate transfers. Finally, the **TM-D4000** (\$4,299) digital mixer was a huge hit. With moving faders, 8 aux buses, built in multi-effects, dynamics and EQ on every channel, as well as plug-in cards for more I/O, this looks to be a very competitive digital mixer. Only five buttons on the entire surface of the console have more than one function, so it is very intuitive to use. There are even dedicated ports allowing up to four units to be cascaded together. Look for a full report in our next issue.

TAKAMINE. Their new electronics include a programmable preamp with a built-in effects processor. You can program effects setting, level, EQ, and overall volume.

TANNOY. The **PS110** (\$495) and **PS115B** (\$1,299) active subs were shown. These are meant to be used with their powered Reveal monitors.

TC ELECTRONIC. The **Finalizer96K** looked ready to go. This is the 24-bit / 96K version of their popular mastering processor. Old units can be upgraded for just \$100, which is the difference in retail price. They have also introduced a 24 / 96 card for their M5000 processor. Their Megaverb plug-in is now bundled with their TC Tools package for \$995.

TUBE TECH introduced the **CL2A** (\$3,495), which is essentially a two-channel version of their successful CL1V tube compressor.

WALDORF. If you like the "swooshy, mooshy" sounds of their past Microwave synths then you will like the new **Microwave II** keyboard.

WAVES. In addition to their **L2** hardware maximizer, they showed a whole slew of new plug-in bundles for Mac and PC. They have new processors like Metaflanger and Mondo Mod, as well as Super Tap that are included in some of them. I'm sure you can figure out what these do. They claim 56-bit audio match on TDM systems.

Watch for updates and full coverage of these products here in *Sweet Notes* and in our inSync Web daily.

INTRODUCING THE RADICAL RADIATOR

These are the years of the "me too" guitar. Strat, Les Paul and Tele: These names are all synonymous with a particular sound, shape and style of guitar. Although these instruments established what were to become the accepted standards for today, some guitarists (and guitar manufacturers) feel that innovation and the continued development of the electric guitar stopped right there. Which is why so many guitars owe much of their look, feel and sound to these trend-setting instruments.

Enter **Godin**. Now at Godin, new guitar concepts are simply a way of life. Among the company's offerings are many well respected, critically-acclaimed, high tech and synth ready instruments. But along with these ground-breaking guitars, there arrives a brand new back-to-basics model. Set-

ting a new price-to-performance standard and sporting what has to be considered a new look (though decidedly "retro" in the best possible way) Godin has introduced **The Radiator**.

A combination of computerized technology coupled with the tender loving care that only human hands can give, The Radiator establishes a new level of value for North American-made guitars. One look at the photo will have you wondering exactly what this ax is all about.

Well, at first glance you may notice that The Radiator is not your typical "me too" guitar. The Silver Leaf Maple body was designed with unique sound chambers, then capped by a big Mother of Pearl pick guard. But this is just where the differences begin. Loaded with two of Godin's own custom-design, low noise, single coil pickups, you will find the tonal possibilities not only virtually limitless, but with a character that is anything at all but "me too."

Two separate volume controls and a shared tone control allow subtle tone variations without drastic toggle switching. The hand finished, 12-inch radius, hard rock maple neck (with rosewood or maple fingerboard) has all the comfort and playability formerly available only on certain astronomically-priced "custom shop" guitars. The distinctive headstock with its raised metal Godin logo adds unmistakable classic character.

And with three-per-side, high ratio, sealed keys, you'll find tuning a breeze.

Not only does The Radia-



tor share the outstanding playability, individual character, style and innovation of the American classics, but most amazingly this is a new guitar for the new Millennium that's priced like a guitar straight from the Fifties: Just \$449 list! What an incredible bargain.

But right now you might be thinking: Wait! A guitar priced that low can't be as good as they say. Shouldn't it cost over a thousand bucks? While we'd be glad to take your money if you have nothing better to do with it (ahem, please forward it to the author of this article), the people at Godin feel that special guitars don't necessarily have to come with big budget price tags.

Personally, I can confirm everything you've read above. I've already laid down several tracks with this instrument and have to say that I actually prefer the sound and feel to my way more expensive vintage single coil guitar. And wait until you try some slide work on this baby. It sounds phenomenal. Of course, since the guitar I was using was on loan from those nice Godin folks, I couldn't raise the action up as high as I'd like for slide work, but still, this puppy cries like a 30-year-old ax when you send it through an amp that will do it justice (Side note: Sweetwater just happens to have those available, too!).

So let me say that you really need to get one of these guitars into your own studio or up on stage and see for yourself what I mean. Choose a color from among Pace Car Blue, Black Pearl, Canary Yellow, Aqua, Cream (my own favorite) or Powder Blue.

Whether this is your very first guitar, a second stage instrument or even an ax to complement an existing selection of fine electrics, you'll find The Radiator delivers the goods at an astounding price. So call us here at Sweetwater for more information and your even more amazingly low Sweetwater price. (But hey, what more do you really need to know? This is a killer guitar at an astonishing price!).

By the way, just to keep all the various lawyers happy (and me out of more trouble than I'm usually in), please make yourself a note that Strat, Les Paul and Tele are all trademarks of their respective manufacturers. There, that should do it. — **M. Rief**

DIGIDESIGN STATE-OF-THE-ART UPDATE

— *Continued from Page 12* classic amplifier and speaker cabinets, giving you a "dream list" of sounds and tones to choose from. The sound is completely authentic, and you have full control over all the audio details in recording and production. With Version 1.5 you get even more Amp Models and it's also fully compatible with Digidesign's Pro Tools|24 MIX systems for Macintosh.

As mentioned in previous issues of SweetNotes, Digidesign's **Pro Tools|24 MIX** and **MIXplus** systems are now also available for Windows NT. It's a single-card DAW core system that provides up to 64 tracks, and has massive mixing and processing capabilities. Any PC people out there who've hungered after the earlier Mac versions of Pro Tools |24 MIX and MIXplus now have the opportunity to get their hands on Digidesign's most powerful DAW ever.

Also in the reminder department is SampleCell II Plus for both Mac OS and Windows NT systems. This PCI card takes up where the award-winning SampleCell II left off, bringing superior sample recording and editing capabilities to your DAW. With a trigger time that's faster than any other sampler around and flawless performance, SampleCell II Plus is one powerful sampling solution. You also get 32 MB RAM,

and the Windows NT version supports Mac CD-ROMs for access to a huge range of sample libraries.

And now the disappointing news. As of right now, Pro Tools does not support Apple's new, blue G3s. Digidesign is working on it and we should hear something from them pretty soon, but even so, many of the features of the new G3s (no floppy drive, no serial ports, no SCSI ports, shared PCI bandwidth between PCI cards, USB and Firewire) don't make it easy to record music on them. For your computer-based recording system, it might be better to stick with the "old" G3s, at least until further notice.

Digidesign has been at the forefront of computer-based digital audio for over a decade, pushing the limits of the field with innovative designs and standard-setting systems. Perhaps more than any other developer, Digidesign has created new options and opened frontiers for musicians working on computer, from a variety of effects and loop-based plug-ins to a wide range of core systems. At Sweetwater, we've long been aware of the exciting possibilities of making music on computer. To learn more about the world of Pro Tools and what working on a computer can bring to your music, call your Sweetwater Sales Engineer. — **Michael Summers**

MOVING?

You don't want to miss a single issue of Sweet Notes, do you? Don't count on the Post Office to forward your copy. Just call, fax or e-mail us your new address. It's simple!

M3000 STUDIO REVERB

— *Continued from Page 2*

And we didn't even mention the specs yet! How about 24-bit internal processing with your choice of 44.1 or 48kHz for a frequency response of 20Hz to 23.9kHz. And you can use the built-in dithering to go from 22-bit all the way down to 8-bit.

But what makes this the ultimately usable "Swiss Army Knife" of effects processors is its myriad of Ins and Outs: Analog +20 to -10dBu (XLR), AES/EBU (XLR), S/PDIF (RCA), ADAT (optical), plus Word Clock In and External Pedal Control. And all of the output types work simultaneously!

If this isn't enough to convince you to check out the TC M3000 Studio Reverb Processor, then call your Sweetwater Sales Engineer for a price that will seal the deal. — **Daniel Fisher**

ROLAND INNOVATIONS

— *Continued from Page 7* to be set and instantly accessed in real time, enabling, for instance, variations in song structure for solos and choruses. Solo/Mute, Music-Minus-One and Transpose functions allow the quick removal of any desired part, including the melody track for singing, and for global transposing of all MIDI data into any key. A number of functions such as Mark/Jump, Play/Stop, Punch In/Out, and Fade Out can be assigned to optional footswitches for hands-free operation — a great boon to live performers. And an intuitive control panel layout and a bright, high-definition LCD enable quick access to parameters, even in low light settings and on stage.

Composers will appreciate the inclusion of several of the Roland XP-Series' hottest features, including 16 Phrase tracks and a separate Tempo track, Time Signature track and Pattern track, Non-Stop recording functions, RPS Phrase Sequencing, Groove Quantize functions, the XP-80's amazingly flexible Arpeggiator, Disk Quick Play capability, Microscope Editing, MMC and MTC compatibility, and two MIDI Outputs to control up to 32 MIDI Channels simultaneously.

Storage of onboard sequence and parameter settings is accommodated via a 120,000-note internal memory plus a floppy drive with a capacity of 118,000 notes per disk. Additional storage is available via an optional internal 2.5-inch IDE hard drive, an optional internal Zip drive, and an optional SCSI interface board is also available for connecting to external SCSI storage devices for unlimited data storage and backup.

Voice and sound expandability is available via the optional VE-GSPPro Voice Expansion Board, offering 1,117 high-quality GS instrument tones ranging from grand pianos to classic TB-303 sounds, 42 full rhythm sets, 128 Preset Patches, and powerful effects processing capabilities. This configuration, also available as the MC-80EX model, presents a complete "all-in-one" sequencing and sound module solution.

Close your eyes. Visualize yourself up on stage with the MC-80 or MC-80EX. The audience, soaked in sweat, can't stop moving. The rhythm is pounding wildly, the sounds screaming in the universal language: Dance! Dance! On that colorful note, we leave you with this simple message: Call your Sweetwater Sales Engineer for additional information and super low pricing on all the incredible products from Roland.

MACKIE: New Gear from Woodinville, USA

— *Continued from Page 8* subs with no crossover needed; and switchable stereo, mono, and bridged modes. And Fast Recovery Technology isn't the only design innovation in the M2600. It also features the "T-design" cooling system. The process starts when the outside room air is pulled through the whole front of the amplifier. The super-quiet fan is capable of transferring up to 155 cubic feet of air per minute, but it's thermally controlled and only kicks in when it's really needed. When it's not needed, it remains idle, offering great efficiency and, better yet, low noise. Finally, when the air leaves the fan it goes down two short cooling tunnels (rather than one long one) for optimal cooling capabilities.

What this all adds up to is a power amplifier that truly delivers power you need. The ideal amplifier for live performance applications, the M2600 lets you keep the music on "11" for as long as you want. Not only will your audio sound incredible the whole time, but the M2600 is tough enough to get up the next day and do it all over again. For a power amp that delivers the best combination of superior performance, power, and reliability, call Sweetwater Sound today and get the full story (and your special pricing) on the M2600. — *Michael Summers*

SHURE KSM32 STUDIO CONDENSER MIC

— *Continued from Page 11* dB typical, A-weighted — that's low, trust us), resulting in the increased dynamic range required for demanding recording applications like, say, 24-bit digital. Given the KSM32's high output capability, noise potentials are reduced even further by eliminating the need for large amounts of mic preamp gain.

As a safeguard against unwanted noise, the KSM32 is additionally equipped with an internal shock mount, integral three-stage pop filter, and a switchable low frequency filter which can be adjusted to reduce mechanical vibration and HVAC noise (I think that's what you get when someone is vacuuming in the room next door, but I might be wrong), or to counteract proximity effect (and who doesn't want to do that from time-to-time).

With an open, natural, extended frequency response from 20Hz to 20kHz, the KSM32 is ideally suited for use with vocals, acoustic and wind instruments, ensembles, and the overhead miking of drums and percussion. Two KSM32 models are offered. The full studio version, the Model **KSM32/SL** (\$1029 retail), features a champagne-colored finish and comes standard with a ShureLock elastic-suspension shock mount, a locking aluminum carrying case, ShureLock swivel mount, and a protective velveteen pouch.

For applications such as live stage productions, where reduced microphone visibility might be desired, the **KSM32/CG** (\$959 retail) is available. Finished in non-reflective charcoal grey, it comes with a ShureLock swivel mount and a padded, zippered carrying bag.

While both the acoustic environment and microphone placement have significant effects on the sound obtained when miking a source, the KSM32 is a mic that literally can be used in almost any application. It incorporates all the features you've come to expect from a company with a reputation like Shure's, yet it also breaks new ground in terms of its performance and fidelity. If you weren't present at the AES Convention, you need to know more about the KSM32. All you have to do is pick up the phone and call your Sales Engineer. There won't be any explosions, no laser shows, but you will get a super low Sweetwater price on the KSM32 that best suits your needs. — *D.S.*

INSIDE THE SWEETWATER DIFFERENCE

— *Continued from Page 10*

nouncements and discussions regarding policies and procedures, we spend the remainder of the meeting on either sales training or product training.

Sales training in a Tuesday morning meeting is somewhat similar to the training done in the Sales Lab. If anything, we take the concepts covered in the Lab to the next level in this forum by role playing more difficult situations. For example, we might have a situation where a customer calls in to buy a compressor to improve the quality of his vocals but really needs a new microphone, too. Another example might be a customer that wants to buy a tape-based recording system but isn't thinking about the fact that he might wind up wanting to do a lot of editing and would be better matched with a hard disk-based system. We expect every Sales Engineer to recognize these hidden needs to ensure that our customers receive the desired end result (sometimes, selling what the customer asks for would be exactly the wrong thing to do). This is why we ask you so darn many questions when you call us instead of just quoting you a price like most of our competitors.

Product training is taken very seriously here at Sweetwater. The reputation of our company is built upon the solid foundation of an exceptionally knowledgeable sales staff. This being the case we are very demanding of our manufacturers to provide high level training for our staff.

The available meeting times are very carefully scheduled (frequently months in advance in anticipation of new product releases) and the time is jealously guarded to ensure quality and that we have all the time necessary for our training sessions.

We actually evaluate each presenter and share the results with them following the meeting (no, we're not trying to set them up, we actually send them the evaluation form in advance so they can be sure to make any necessary adjustments in their presentations). I found this to be necessary because our needs are very different from the average retailers. We're not just looking for bullet point feature / benefit items; we want the whole story. We need to know the company's history, accomplishments, product classifications, competition, target and secondary markets, positioning, advantages, benefits, and more.

A "typical" manufacturer presentation (for most other retailers) is a relatively low-key affair (I can speak from experience from my days at AKG). The factory guy grabs two or three salespeople when they aren't dealing with customers and then tries to tell them about the latest products (until the salespeople are pulled away for a phone call or another customer walks in who they need to take care of). End of training session . . .

Here, at 8 AM on Tuesdays and 7 AM on Thursdays (long before most of our competitors are even awake), the factory rep walks into a room of 50+ Sales Engineers (currently, our staff is growing almost weekly) who are dressed in business attire. The sales staff is poised with pen and paper in hand, alert (well, most of the time) and anxious to dig in and learn about the latest technology and products.

The reward for the factory folks and reps (at least I considered it a reward when I used to do training sessions here with AKG, Soundcraft, JBL, dbx, etc.) is that they get to take their presentations up a notch and talk tech with folks who are nothing short of passionate about technology.

We've worked with our manufacturers to develop specific training programs to suit our needs, complete with the most thorough (read that *toughest*) testing in the industry on their specific product lines. These tests, incidentally, are not part of the Sweetwater University certification program (but I'll have more on this in the next issue).

I should note that beyond the formal meetings, our sales staff works hard continuing their education via many hours of reading all the trade magazines, literature and product manuals, as well as net surfing and working with the equipment outside of normal working hours, just so we can be current on the technologies and applications.

The ultimate goal of all of this intense product training and accumulation of the latest industry knowledge is, of course, to ensure that when you speak with our sales staff you can be assured that you won't find anybody anywhere better able to assist you with your purchase and design.

Wow! It had been my intention to cover the meeting and Sweetwater University in this issue but I've run out of space so we'll have to tackle Sweetwater U. next time around. Rock and Roll!

Jeff Radke is Vice President of Sales at Sweetwater.

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Despite the fact that my space has been cut in half (there's just so much information in this issue that it couldn't be squeezed in any other way), it's my pleasure to tell you about an instrument that is going to be a sought-after collector's item from the minute it ships from the factory. It's from the master guitar builders at **Paul Reed Smith** (where else?). It's called the **Dragon 2000**.

What's so special about this guitar? Well, first of all, only 50 of these instruments are being made. That's right — just 50! And once those are gone, there will be no more. Not ever! No matter how much we beg! And as if that wasn't reason enough for you guitar lovers out there to be drooling already, let me tell you just a bit about what (aside from the limited quantities) makes this guitar so incredible.

You start with the basic PRS design — which, let's face it, is already a classic. Next you add a carefully hand-selected, heavily flamed or quilted maple top over a solid mahogany body. Then (and here's the amazing part) you carefully, piece-by-piece, inlay a breathing fire dragon right into the face of the guitar.

And this is not just any inlay. We are talking about a stunning combination of precious stones and rare metals. The result is one of the most ambitious guitars the PRS factory has ever built. A truly breath-taking instrument of the highest calibre that is also a stunningly crafted work of art.

The Dragon 2000. Also known as the "Millenium Dragon." And Sweetwater has ordered two: Numbers 35 (in a striking red finish) and 36 (in a gorgeous amber finish). And either one can be yours for just \$20,000. Yes, twenty of the really big ones. Less than my parents paid for their first house! But may I add that this guitar is worth every penny when you consider that here is a once-in-a-lifetime investment that will surely shoot up in value the minute the last one is sold.

Imagine for a minute that you could go back in time and buy yourself a brand new 1958 Les Paul flametop. Are you with me now? This is that same kind of



opportunity. No photograph can possibly do this guitar justice, and in this case, we only had a few digital camera images to work with (PRS promises us a first class studio shot by next issue, though I'm betting both our Dragons will be long gone by then). Still, you can see, even here, that this guitar is magnificent.

Can't afford a Dragon 2000? It's okay, because you can still own a PRS that will be the envy of all your friends and make your enemies detest you even more (I promise!). See, every PRS is built by hand by master craftsmen at the PRS factory from the very

best materials available: From the choice woods to the electronics, every part of every guitar is first class. So please do yourself a favor and call your Sales Engineer for a complete rundown of all the PRS models in stock, plus your special Sweetwater pricing. And I happen

to know for a fact that there are some gorgeous instruments out in the warehouse right now in all the best colors, so call now.

I'll see you all back here in our next issue with my usual full page!



MOTU'S DIGITAL PERFORMER 2.5 ... AND BEYOND!

— *Continued from Page 6* updating numerical display. Very sweet! Did you know that you can set the EQ bandwidth to as little as 1/100th of an octave? We're talking precision EQ here! You can even marquee select over several filters at once and drag them simultaneously. In effect, when you do this you're modifying all of the selected filters at one time, so you can generate some interesting effects with this, to say the least.

Sample-accurate editing. Most audio sequencers have an internal timing resolution that's based on their roots as a MIDI sequencer. As a result, when you go to edit audio in them, you can experience timing inaccuracies and phase problems after audio editing operations, even something as simple as splitting an audio region. These types of problems are quite insidious because they are so subtle. You might not notice them in the heat of an editing session, but as they build up with each edit, they can seriously compromise the overall impact of your mix, so beware!

Digital Performer 2.5 solves this problem because MOTU has raised the internal timing resolution to either 44.1kHz or 48kHz. As a result, audio always remains on the exact sample it's supposed to be. You'll never experience phasing problems or timing inaccuracies in Digital Performer as a result of editing. This implementation of sample-accurate editing truly is another industry-leading breakthrough from MOTU, and is most evident in the completeness of their implementation of this feature. You can now actually zoom in to the sample level right in Digital Performer's multi-track audio editor and view multiple audio tracks at the sample level. You can nudge audio regions by as little as one sample at a time. When working at this level, there is absolutely no question about what's going on with the timing of your audio. When you combine this level of accuracy with Digital Performer's ability to accomplish sample-accurate digital audio transfers with ADATs (using a 2408) and DA-88s (with a 2408 and a DTP), this is truly the most advanced system we know of in terms of sample-accurate timing.

The program also has four main time formats: Measures / beats, SMPTE, real-time, and now samples. That's right. You can set Digital Performer's main counter to samples and start playback at a specific sample in your project. Talk about precision! Want to go to sample number 48,356,129? Just type it in. Here's another example: If you're working on a 44.1kHz session, and type one second into the real-time counter, the sample counter will read 44,100 samples.

And now for the aspect of this feature that takes it right over the top for us: You can edit MIDI data at the sample level, too! As MOTU explained during their visit, nudging a

MIDI note by one sample will have absolutely no effect on how it actually plays back because 1 sample is well below the normal timing tolerances and jitter of MIDI in general, regardless of what hardware you are running the MIDI data through. But it is remarkable that you now have "sub-tick" editing capability of MIDI data. Being able to edit MIDI with an accuracy of one 48,000th of a second is truly another landmark in MIDI sequencing, but there are many other enhancements, too, but as usual, space is at a premium and we want to get to the Version 2.6 sneak peek.

We do need to let you know that DP 2.5 supports all of Digidesign's latest hardware, including MIX and MIX plus. Also included is support for Digi's "Direct I/O", which allows Digital Performer to talk to their new Project II card, or any other current Digi PCI product via Digital Performer's own MOTU Audio System instead of DAE. It also includes support for the Sonorus Stud/I/O card and the Event Electronics Layla system.

Version 2.6 preview. MOTU doesn't normally reveal what's in the next update of Digital Performer until right before it ships, but they recently took exception to this rule at the NAMM Show in January and gave us a sneak preview of Digital Performer 2.6, which is due later this spring. Version 2.6 will be a free update to all Version 2.5 users. Wow. Talk about even more added value! One of the cool new features MOTU previewed was the POLAR window. POLAR stands for "Performance Oriented Loop Audio Recording". It's RAM-based loop recording directly with Digital Performer, where you can layer audio — just like you've been able to for years with MIDI — right into the computer, while the music never stops. It's awesome. MOTU had live guitarist Chris Parks, the New York based musician and producer, in their booth overdubbing live bass, rhythm guitar and lead guitar tracks, in real-time during the demo, and the music never stopped. It was great. MOTU's booth was more packed than we've ever seen it, and they even had guest appearances from a few recording artists. The highlight of the show was when THE Chaka Khan came by and sang into POLAR during MOTU's demo. Chaka stacked six-part harmony and then soloed on top of that. Man, what a voice she has. MOTU tells us that she absolutely loved it, and so did the huge crowd of about 300 people. POLAR will be part of Digital Performer 2.6, which again will be a free update to all 2.5 users. And MOTU tells us that there will be plenty more beyond 2.6, so stay tuned . . .

For more information about Digital Performer 2.5 and updates on the availability of 2.6, call your Sweetwater Sales Engineer. If you currently use another audio program and you are interested in Digital Performer, ask about our special crossgrade program. — B.H.



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