



SWEET NOTES

5335 Bass Road, Ft. Wayne, Indiana 46808 (219) 432-8176

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MULTITRACK MARVELS



Back in 1991, musicians around the world literally lined up to buy the very first commercially available digital multitrack, the **Alesis ADAT**. Most were only too happy to hand over their cash or credit cards for the many benefits offered by this new technology: Recordings now exhibited incredible frequency response and superb signal-to-noise ratio plus an ultra-wide dynamic range. Heck, these things were so clean and quiet that thousands of pro and semi-pro studio owners actually had to go out and replace their old, noisy mixers and effects processors!

If you were one of the few lucky ones who managed to get their hands on an ADAT back then, you remember how incredible it was the first time you laid down some tracks and heard that superb CD-quality audio coming out of your monitors. If you're one of the thousands who put off buying a digital multitrack until they "worked the bugs out" or became more affordable, well that time is certainly here. Simply put,

there's never been a better time to jump into the digital recording arena, whether it's with one of the great tape-based machines, or with one of the new breed of sophisticated hard disk recorders. Your only problem may be deciding which unit is right for your needs — gee, everyone should have such problems!

TAPE-BASED MULTITRACKS

Let's start out with the machine that started it all, the **Alesis ADAT**. Actually, the unit has now been updated and released as the second-generation **ADAT XT** (\$3499 list price). The original ADAT sold over 70,000 units and, along with the DX-7 and M1 is probably one of the biggest success stories in music technology. The XT is actually less expensive than the original ADAT, yet it offers more than twenty new and improved features in addition to stunning sound quality. For starters, it fast-forwards and rewinds more than four times as fast as the original, as well as using advanced transport software to continuously monitor

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INSIDE THIS ISSUE:

HEAVYWEIGHT MICROPHONES

Every studio needs at least one really great mic. These days, there are more pro quality models available than ever before from the best names in the industry, like **Neumann, AKG, Audio Technica** and **Rode**. Take a look at this new group of killer mics.

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NEW E-MU PRODUCTS

It's here, it's loud and it grooves! With a name like **Orbit the Dance Planet**, you'd expect this product to be, well, out-of-this-world. Find out more about E-mu's ultra-hip dance music machine, as well as their exceptional new **Emulator 4** keyboard.

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HOME KEYBOARD UPDATE

You'd like a piano in your living room, but just don't have the space (or budget). Maybe you'd like an instrument with the qualities of a fine piano, but with the capability to do a whole lot more. Check out these beautiful instruments from **Kurzweil** and **Korg**.

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TIMECODE DATS & MORE

It's not enough for some people to have a recorder that sounds great, they need the advanced synchronization capabilities. We look at timecode DATs and other great DAT machines inside.

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SOUNDWARE SCENE

The Soundware Development Facility reports on new Audio Demo CDs, Power Translators, Sounds of the 70s CD ROM, employment opportunities and more.

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PLUS ProTools software and Audiomedia III card from Digidesign, Waves Audio Processors, Mark of the Unicorn's Digital Performer 1.7, TC Electronics M2000, KRK Powered Monitors and much more!

EXCLUSIVE REPORT

NEW PRODUCTS FROM ROLAND

You have to wonder when the product engineers at Roland have a chance to eat and sleep. They've been releasing so many innovative new products lately that it seems they must be working 24 hours a day on these things. Of course, that means we musicians get some incredible new tools to make music. So check it all out on page 2.

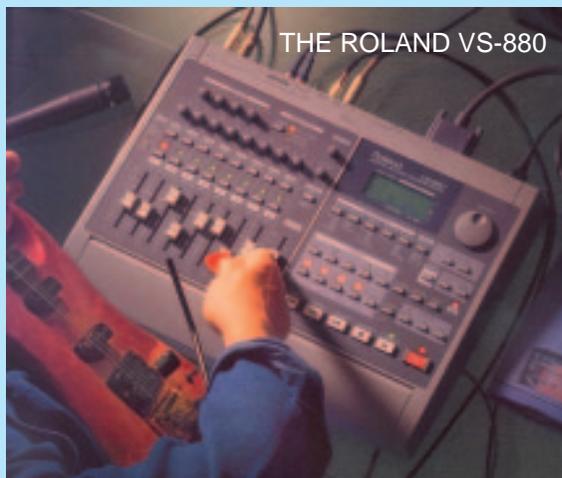


Roland NEW PRODUCTS '96

If you've been paying attention over the last twenty years or so, you know that Roland has been building the cutting-edge products that musicians really want. A list of their successful innovations would take up more space than we have here (analog and digital drum machines, polyphonic analog synths, L/A synthesis, the first realistic-sounding piano modules and digital samplers, just to name a few) and with the release of a number of new products, the company seems headed into the 21st century as an acknowledged leader in music technology.

After shipping a number of popular instruments in 1995, Roland has done it again in 1996. Following hot on the heels of their superb, best-selling XP-50 comes the awesome new **XP-80 Music Workstation** (\$2595 retail). Sporting a 60,000 note MPC Pro sequencer (with a new nonstop

loop recording feature), a 76-note (over six octaves!) velocity and aftertouch-sensitive weighted keyboard, 64-voice polyphony, 16-part multitimbral operation, plus a truly innovative, second-generation arpeggiator (more on that in a minute), the XP-80 means business! Add to that the same 32-bit RISC chip-powered sound source as the XP-50 which is expandable via optional plug-in boards to a full 40 megabytes (which is the equivalent to a staggering 80 megs of 16-bit linear format thanks to the proprietary Roland compression algorithms) plus 40 stunning, studio-quality digital effects and you've got a massive amount of sonic power at your fingertips right out of the box.



The XP-80's arpeggiator function is like nothing you've ever experienced. It's both smarter and more expressive than arpeggiators you may have heard before. It's capable of producing everything from standard up/down and random arpeggiation to smooth glissandos, walking basses, rhythm guitar parts (including strums), keyboard comping and much more. Spend a few minutes trying out this new feature and you'll find yourself writing new songs almost instantly!

If you want many of the XP-80's features but aren't quite ready to invest your greenbacks or plastic on such an ultra-sophisticated machine, you can have a lot of the XP-80's most innovative functions (like the cool arpeggiator) in an affordable package with the very cool **XP-10 Multitimbral Synthesizer** (\$895 list). It's 16-part multitimbral, with 28-note polyphony and full

General MIDI compatibility plus effects. Using an optional cable, the XP-10 is ready to be hooked up to your PC or Macintosh. It's also quite user friendly, so check it out.

Now let's move on to the new flagship stage piano/MIDI controller, the **A-90EX** (\$2995 list) which features incredible grand piano sounds, a full 88-note hammer-action keyboard (it feels fantastic!) and a wide range of powerful controller functions. But there's more sounds under the hood than just pianos. The A-90EX sports a huge wave memory capacity equal to 24 megs of 16-bit linear sounds, so it can produce stunning electric piano textures plus everything from strings, brass and synths to vintage B-3 and Clavinets sounds,

all with 64-note polyphony. Expansion boards (like the VE-JV1 or VE-GS1) can also be added to expand your palette of sounds. You could say the A-90EX is a great synth that just happens to be an amazingly versatile MIDI controller.

Next up is a box that's sure to get a lot of notice in the next few months. It's the **VS-880 Digital Studio Workstation**. Imagine a 64-track digital hard disk recorder with comprehensive non-linear, non-destructive editing functions and instantaneous locate times. Imagine a built-in 14-channel fully digital mixer, MIDI compatibility, choice of storage media and digital in/out plus an optional on-board digital effects processor. Would you be surprised to learn that such a fantastic machine carries a list price of under \$3,000? That's right, *under!* Oh, and since you're doing all this imagining, you might reasonably imagine that these units are going to be a bit scarce for a while. We won't tell you too much more about the VS-880 right now, since quantities will indeed be limited, but you can rest assured that as quick as the factory can make them, we'll be stocking them (and sending out units to those who were smart enough to order immediately). Of course, if you just can't wait to learn more, just call your Sweetwater sales engineer for more juicy details.

A clear contender for "most innovative product under two pounds" is the **PMA-5 Personal Music Assistant** (\$595 list), a palm-sized composition tool with 306 built-in sounds (including a full GM/GS set), 16 drum kits, eight-track sequencer, Intelligent Arranger with 100 music styles, built-in computer serial port and more. Take a look at the photo on page 10 to see how compact this unit is. But despite its small size, it's packed with great sounds and all the processing power you need to do your composing "on-the-run." Imagine working on your latest creation while waiting for your flight to take off or just relaxing on the beach, sipping a pina colada. It's a truly inexpensive way to make music anywhere, any time! Oh, and it's a blast, too!

Of course, no Roland story would be complete without mention of the exciting new **VG-8 V-Guitar System** upgrade, the **VG8S-1** (check out our "Tech Notes" column

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ROLAND GUITAR & KEYBOARD AMPS



If your gig is playing live, you know the importance of having reliable, great-sounding amplification. Roland figured that you might want your audiences to hear your new Roland keyboard, VG-8 or even your Stratocaster (or Les Paul, etc.) through an exceptional amp — one that will give you all the sound quality you need, along with the dependability you want when your gear has to perform night after night in what may not be exactly the best conditions.

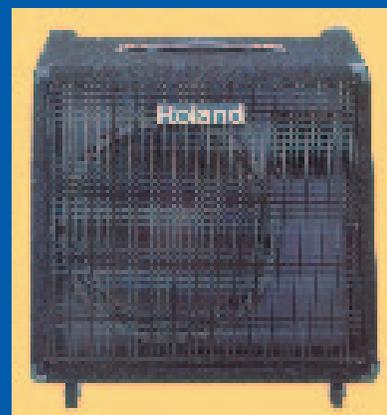
That's why they've introduced their new **KC-500 Keyboard Amp** (\$799 retail) and two new **Blues Cube Guitar Amps**, the BC-60/310 (with three 10"

speakers/\$779 list) and the BC-30/210 (two 10" speakers/\$479 list). All three are perfect for small to medium sized venues, and of course, backed up by Roland's tremendous reputation for building killer equipment.

The KC-500 features four channels of stereo input pairs, each with its own

volume control. It's also equipped with two line outputs (XLR and 1/4") so you can route the stereo output mix to other sound reinforcement systems. There's even a mic level input. The unit comes equipped with a powerful 150-watt amplifier and incorporates a two-way speaker configuration (a 15" woofer coupled to a horn driver) ensuring accurate reproduction of your sound with fat lows and crisp highs. Covered with a protective carpet material and rugged metal grille, the KC-500 can take just about any punishment you care to subject it to.

But how about the guitar player in your band? Maybe he's been thinking about a new tube amp, but he's been put-off by the skyrocketing cost of these beasts. Roland to the rescue again with their proprietary Tube Logic Technology which gives you the warmth and richness and smooth overdrive characteristics



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SWEETWATER PRODUCT PROFILE

HEAVYWEIGHT MICROPHONES

A decade ago, no "average musician" could have ever dreamt of owning a real pro-quality studio mic. But today's serious studio owners all know that they need at least *one* killer mic in their sonic arsenal, particularly for vocals and solo acoustic instruments. Happily, price-to-performance ratio is getting better all the time. At the top of many studio owners' lists are the fabled mics from **Neumann**. Pictured on the right is the Neumann **M149 Tube Powered Large Diaphragm Condenser**. At \$4750, it's still a significant investment, but like all the mics on this page, it's an investment that will last for decades. The M149 is actually the first new tube mic from Neumann in



over 30 years and it's the world's first transformerless tube mic. With nine switchable polar patterns, a nine-position high pass filter and specs that are to die for, this is a great performer that will enhance any recording.



Carrying a shockingly low suggested list price of just \$395, the **Audio Technica AT4041 Cardioid Capacitor Microphone** features ruler-flat frequency response, a fixed-charge, permanently polarized capacitor element and a stunning 121dB dynamic range.

Another major industry leader is **AKG Acoustics**, and their awesome **C12VR Twin Large Diaphragm Condenser** (\$4199 list) offers true audiophile performance, combining classical tube mic design with superior 1990s manufacturing techniques. The C12VR has nine polar patterns plus -10 and -20dB attenuation and switchable bass roll-off and cut-off filters.



From Australian mic maker, **Rode**, comes the **NT-2 Condenser Mic** (\$749 list) with Dual Pressure Gradient Transducers, a transformerless circuit and large capsule with gold-plated membrane. Standard are dual polar pattern and switchable high pass filter plus a -10dB pad switch.



Obviously we don't have room here to tell you all about these sonic overachievers, so call your Sweetwater sales engineer for more information and special low pricing on the mic of your dreams (and budget). Or check out our Hot Studio Mic Web Site for complete details on these and the many other fine mics we carry (including the exceptional **Beyerdynamic** line) at "<http://www.sweetwater.com/microphones/microphones.html>".

E-MU ORBIT & E4K



Bearing the unlikely — but interesting — name **Orbit The Dance Planet**, it's fairly obvious that **E-mu** was not looking to create a simple "me-too" performance module. True, there's over 600 of this particular planet's most cutting-edge samples (we're not sure what Venusians may be listening to), as well as surprising new rhythmic features like the unit's "Beats" mode which allows users to manipulate drum loops (of which there are over 50!) to fit their own unique style. Retailing at just \$995, this is one unit that's going to turn a lot of heads.

But let's start at the beginning: Orbit The Dance Planet's sounds were created by the world's top sound designers. These talented individuals spent thousands of hours sampling, researching and ultimately creating Orbit's tremendous sound set. You'll hear deep, pulsating basses and melodic, ambient pads along with awesome drums and other percussion, take-no-prisoners synths and effects plus various hits, all of which were put together to be the ideal sound set for dance music. In Beats mode, you can change any onboard groove's tempo and transposition, as well as do your own custom "orchestration" by altering any of the preset sounds. This allows users to really interact with Orbit's powerful synth functions. Of course, if you just want to plug-in and play, Orbit's ready to go right out of the box.

Filters are an integral part of dance music and E-mu's 32 6-pole filters give you awesome control over the machine's 32 voices of polyphony, 8 megs of sounds and 512 presets. There are actually 16 filter types including low and high pass, band-pass, phaser, flanger, EQ and powerful Morphing, all controllable in real time for complete expressiveness. Of course, it's also 16-part multitimbral and comes with six polyphonic outputs. Check this thing out!



Oddly enough, despite the fact that there was probably a lot of dancing going on in the E-mu building during development of the Orbit module, the engineers and product designers still found the time to build a 76-note (six-octave) keyboard version of their highly-acclaimed Emulator Four digital sampler. It's called (oddly enough) the **Emulator 4 Keyboard** (or E4K for short). Sporting a whopping 128 voices of polyphony (on the model 6901 — 64-voices on the model 6900), the ability to drop in up to 128 megs of sample memory (four megs come standard with each unit), eight +4dBu outputs, a 270MB internal hard drive (loaded with over 150 megs of new samples), digital ins and outs, 18-bit D/A converters and more. But to top it all off there's an amazingly versatile new 18-bit stereo dual effects processor onboard with over 40 great-sounding reverbs and over 20 superb chorus/flange/delay algorithms.

With internal 24-bit precision, the E4K has eliminated the aliasing and clock noise often associated with samplers, particularly when samples are transposed up or down. Also remarkable is the company's new SoundSprint technology which allows you to load and browse banks of sound in mere seconds — *yes, seconds!* List prices for the E4K begin at \$3995, but you'll want to call your Sweetwater sales engineer right away for your special low price on this outstanding sampler, plus additional information on the E4K or the innovative Orbit module.

NOT JUST A GRAND

If you love music, you'd probably enjoy owning a grand piano. But unfortunately, a quality piano is quite expensive. Then there's the hassle of constantly tuning it. Oh, and if you want accompaniment, you'd better make friends with a few players from the symphony. And of course, a piano will never, ever sound like anything other than a piano.

Don't despair, music lover. You *can* own an instrument that will deliver the beautiful tones of a \$25,000 grand piano, but it will also offer strings, brass, organs, bass and percussion. Plus, it'll look great over there in that corner — you know, the one that's always looked a little bare.



Introducing the modern home keyboard, the perfect alternative to pianos. Not only will *you* love one of these fine instruments, but if you have kids, they'll soon find out it's a blast to use and will actually want to learn to play it. There are a number of very fine home keyboards available today, and Sweetwater carries instruments from many of the best builders, including **Kurzweil** and **Korg**, at prices starting at under \$1000. And forget about any other keyboards you might have heard with so-called "auto-accompaniment" features — most of these new units feature the real thing, programmed to give you a totally authentic "human" feel by some of the best musicians around. (Note: due to certain restrictions, not all of these instruments may be available in your area.)

The **Mark Series Digital Piano Line** from Kurzweil starts with the **Mark 5**, which boasts 23 selectable sounds (including acoustic and electric pianos, harpsichords, pipe organs, jazz and rock organs, guitars, strings and choir), 16 digital reverb and effects combinations, an 80-watt premium quad audio system (designed jointly by Kurzweil and Boston Acoustics), an 88-note weighted keyboard, 32-note polyphony and an elegant real wood cabinet in your choice of six finishes.

Next up is the **Mark 10** with 86 selectable sounds including six acoustic pianos, 4 electric pianos, jazz/rock organs, 4 pipe organs, harpsichords, choirs, a full complement of orchestral winds, strings and brass plus acoustic and electric guitars, basses, mallet instruments, drum sets and more. There are 40 reverb and effects available, plus auto-accompaniment in 32 built-in styles from bossanova and salsa to rock, country and classical. The onboard Recorder/Sequencer

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MULTITRACK MARVELS

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formance. The tape head constantly reads ADAT's built-in sample-accurate time code for super fast search and lock times. There's also a great new onboard digital editing function allowing users to make flawless copy/paste digital edits between machines, or even within a single unit.



As you probably already know, the ADAT format is built around an S-VHS videotape transport. That means you can buy tape just about anywhere in an emergency (but please, stick to the highest quality brands, like those we stock here at Sweetwater). All-in-all, the ADAT, having led the pack from the beginning, has evolved into an exceptional second-generation machine!

Not long after Alesis began shipping ADATs, other manufacturers signed on to offer their own version of the S-VHS-based system. First to do so was **Fostex** with the RD-8, which added new control and sync functions (and is still being offered). Their new **CX-8** (\$3495 list) is more closely modelled after the ADAT XT (all you have to do is look at the front panel), but there are differences in connectors. The ADAT uses an ELCO/EDAC multipin connector, while a DB25 multipin connector is standard on the CX-8 for its +4 dBu balanced ins and outs (both machines have -10 dBv unbalanced ins/outs via RCA connectors).

Also based on the ADAT XT format is the new **Panasonic MDA-1** (\$3495 retail). Panasonic has long been renowned for its professional DAT recorders and video decks and now they've jumped into the multitrack market. The MDA-1, as you might guess, is almost identical to the ADAT, but offers standard XLR connectors to handle the +4 dBu balanced ins and outs (rather than the ADAT's ELCO connector), which may make it quite attractive to some studio owners. In addition, the XLRs



are servo-balanced and capacitor coupled, a very nice bonus.

Hot on the heels of the original ADAT came the **TASCAM DA-88** (\$4799 list) which is based on a Hi-8 mm video format. The DA-88, with its host of video synchronization options, literally rules the audio post-production market (along with the DA-88-based Sony PCM-800). So impressed was the video community with this machine that it actually won an Emmy (!) for Outstanding Achievement in Technical Development. While there have been

a number of internal upgrades to the unit, the original design has been so successful that the company has seen fit to simply continue manufacturing them, though the company will be releasing a new unit, the DA-38, this summer which is designed specifically for musicians.

As mentioned, the **Sony PCM-800** (\$5995) is also based on the DA-88 and its Hi-8 format. This unit takes its audio so seriously that there are *no* -10 dBv ins and outs at all, only +4 dBu via balanced XLRs (the unit also offers DB25 multipin ports for AES/EBU digital signals). At its price point, the PCM-800 is clearly aimed at high-end post-production facilities and video houses that want to maintain an "all-Sony" approach to their studio.

DISK-BASED MULTITRACKS

For ease-of-editing and fast random access starts and searches, there's nothing like a disk-based system. The only downside might be that once you used up all the space on a hard drive, well, you



just had to get another one. Either that or find a way to back up all your data, then re-use your original disk. Several of these machines (as we'll see) are beginning to ship with Iomega's one gig removable media Jaz drive and all of them can use one.

Currently, there are several contenders for "top dog" in the disk-based multitrack world. **E-mu Systems** recently jumped headlong into the multitrack wars with its eight-track **DARWIN** hard disk recorder (\$3195 retail). E-mu's philosophy was simple: make the machine as easy to use as a tape-based system with all the benefits and features of the finest hard disk systems. They've even integrated the Iomega Jaz drive in the model 4002 (\$3995 list) for 190 minutes of recording time per removable cartridge.

Fostex recently introduced the **DMT-8 Digital Multitrack** (\$1995 list), and they've put together a package that should delight virtually everyone, including an internal 540MB hard drive, easy editing (without data compression!), a flexible, 22 input mixer with parametric EQ, MIDI capabilities, jogwheel scrubbing (without pitch change), and six locate/cue points.

The new **Roland VS-880** (\$2495 list with 540 MB internal drive) also comes in a Jaz drive-equipped version (\$2895 list). The unit is based on

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INSIDE SWEETWATER

KEEPING IN TOUCH

By Chuck and Brenda Surack
Owners, Sweetwater Sound

We're living in what is being called "the information age." With more and more people buying and using computers and connecting to the World Wide Web, you can easily see why information is indeed power. But it's not just electronic information that is growing exponentially. With faster and less expensive printing processes now available — even small printers now offer full-color — manufacturers, retailers and service providers are able to put their literature right in your mailbox at a fraction of what it used to cost even a year ago.

Of course, competition for your dollar is getting fiercer every day. While the 1970s and early 80s saw many businesses closing their doors, the 1990s will always be remembered for the enormous number of new businesses that were started up thanks to this information revolution. These days, all you need is a computer and a modem and you're up and running and ready to take people's orders (and cash). But you have to ask yourself this question: are these new companies going to be able to survive over the long haul? Sure, it's absurdly easy to get started, but being able to maintain a high level of service and keeping a loyal customer base is a lot tougher than just tossing a Web Site on the Internet.

Those of you who have been longtime customers know that Sweetwater got its start in the economically-lean late 1970s, at a time when many other music retailers were barely hanging on or even going out of business for good. We survived for two simple reasons: We offered our customers the best possible products at affordable prices and we backed up each and every sale with technical support and customer service that was then — and is still now — the very best in the industry. In fact, we actually started Sweetwater Sound because we couldn't find retailers in the music industry who could provide us with the quality products and dependable services we needed for our own studio!

As most of you are well aware, we've flourished over the years thanks to the support of our many thousands of customers. Sure there will always be a tiny percentage of musicians who are interested in one thing only: getting the absolute lowest price. Usually, but not always, that's *our* price. But they'll spend hours on the phone (and lots of long distance charges) calling all over the country, pitting retailers against each other just to eventually save a few extra dollars on their purchase ("Say, I got this price from Sweetwater. Can you beat it?"). Unfortunately, these people usually discover that saving ten bucks on that new keyboard (or mixer or multitrack, etc.) is not such a big deal when they find out that they can't get the answers they need to their questions

("Why am I not getting any audio from the XLR outputs?") or when they find out that they actually got a product that wasn't exactly right for their particular needs. Suddenly those few dollars saved are rather insignificant. Sadly, many small retailers also suffer because they have to cut back on customer service in order to compete for the lowest price. Then again, most dealers don't have any customer service or technical support to begin with.

We're not saying that there aren't any other good retailers out there. There certainly are (in fact, some of them are our friends) and that's good for everyone in this business. It keeps us all on our toes and reminds us that it is indeed the customer who determines the success (or lack of success) of any business, whether it's musical instruments they're selling or automobiles, sports equipment or insurance.

And now that we're all cruising into this new era of powerful communications, we're all going to have to work that much harder to keep our customers coming back. That's why Sweetwater has committed a huge amount of resources and manpower to not only maintaining our position as the fastest growing music retailer in the country (according to *Inc.* magazine, among others), but actually providing even more quality services. Case in point: our Web Site ("<http://www.sweetwater.com>"). If you haven't checked it out recently, please do so. We've added a ton of new features to make it more interesting (like animation — check out our home page and the Mackie page, seen above in its unanimated state) and more informative (you'll find our product information index is now organized alphabetically for your convenience). And by the time you read this, we will likely have even more features up and running.

We've also installed a high speed Risograph for printing special product announcements and doing informational mailings. Risography is a new technology. It's a simple, yet sophisticated, printing process using direct transfer, water-based ink, light pressure and no heat. This means we're actually producing printed materials now in-house without consuming vast quantities of energy (as in traditional xerography or laser printing) or using potentially harmful solvent-based inks and chemicals. Sure, this may be the information age, but it's also the "environmentally-conscious" age. We want to get these materials into your hands, but not at the expense of the environment — it's the only one we've got!

What this all means is that everyone here at Sweetwater realizes just how important it is to keep you, the customer, well-informed, whether it's here in our *Sweet Notes* newsletter or online via the World Wide Web or through the U.S. mail. So with all the new, revolutionary products being released on a daily basis, you can always depend on Sweetwater Sound to keep you up-to-date on all the latest developments in the exciting world of modern music technology.



Q: Can I use the new Jaz Drive with my K2000?

A: The K2000 (as well as the K2500 and K2vx) and Jaz drives do work together, however there are some problems you should be aware of. The Jaz drive has a feature built into its system software that puts the drive to sleep after 30 minutes of non-usage, meaning the Jaz will automatically shut down its platter motor. This is the motor that spins the disk inside the Jaz cartridges. This Sleep feature is used to extend the life of the motor. If you go to the DISK Mode on the K2000 when the Jaz is "sleeping," your K2000 will lock up. You must then repower your K2000 and power cycle the Jaz drive in order to start working again. This situation also exists with Zip drives.

Here's a temporary workaround for the K2000/ K2500 Jaz (and Zip) problem: After you have accessed the Zip or Jaz Drive, turn the drive off (or, in the case of a Zip drive, unplug the power cord). Before you go to the DISK Mode again, turn the drive back on and let it spin up a bit. You can now go to the DISK Mode with no problems. A second solution: After you have accessed the Zip or Jaz Drive, eject the removable media. You can double press the two left-most soft-keys to do this from your keyboard. Before you go back to the DISK Mode again, reinsert the removable media and let it spin up a bit. You can now go to the DISK Mode with no problem.

Q: I'm trying to buy a voltage regulator or a UPS that can handle my equipment but I'm a little confused by the ratings. I'm used to worrying about how many amps things are, yet I keep running into ratings called volt/amps and a power factor. What gives?

A: Wow! Great question, but the answer involves getting a bit tweeky. It would help to fully understand the difference between voltage (volts) and amperage (amps), but that is beyond the scope of our newsletter. For this discussion, suffice to say that different kinds of equipment present slightly different "kinds" of loads to the electrical supply that is powering them. An electric light bulb, for example, is a very different kind of load than an electric motor. What this boils down to is that sometimes all of the power supposedly available to be delivered to a device isn't able to be used by it (technically this is because it sees the voltage and amperage as being slightly out of phase with each other). So the device that may be rated for 10 amps at 120 volts may actually need a little more than that if one takes into consideration that to the device, the volts and the amps aren't completely in phase with one another.

So, a textbook definition of **Power Factor** is: A number between zero and one which represents the portion of the VA (volt amps) presented to the AC load which actually delivers energy to the AC load. With some equipment such as motors or computers, current (AMPS) flow into the equipment without being usefully converted to energy. This happens if the current is distorted (has HARMONICS) or if the current is not IN PHASE with the voltage applied to the equipment. Computers draw HARMONIC currents which cause their power factor to be less than one. Motors draw out-of-phase or REACTIVE currents that cause their power factor to be less than one.

The definition of **Volt Amps** is: A VA (volt amp) rating is the Volts rating multiplied by the Amps (current) rating. The VA rating can be used to indicate the output capacity of a UPS or other power source or it can be used to indicate the input power re-

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Digital Performer 1.7 with PureDSP: No Chipmunks

MIDI sequencing was a quantum leap for musicians. Now they could edit, rearrange, transpose and change the tempo of their compositions without re-recording the material all over again. Unfortunately, the flexibility of audio recording has somewhat lagged behind. Even expensive state-of-the-art digital systems can't change the pitch of a recording by more than a whole step without a serious loss of sound quality.

Enter **Mark of the Unicorn** and the latest version of their best-selling Macintosh software, **Digital Performer 1.7**. With DP (\$895 list) and its newly-introduced **PureDSP** function, you can now take a lead vocal, transpose it up a third, a fourth or even a fifth or more and still maintain sonic integrity. You can add octaves above and below or even create harmony parts. Try your entire composition 20% slower for a new feel. Push the tempo during the bridge, then add a ritard at the end for greater impact. It's all possible now thanks to Digital Performer.

And that's not all this software offers. Keep reading . . .

Ten things you just couldn't do before PureDSP:

1. Transpose a voice up by a fifth or more without creating chipmunk effects.
2. Apply tempo maps to any audio recording.

3. Scale the tempo of both audio files and MIDI tracks to fit times.

4. Transpose and change the tempos of both audio and MIDI files together in one operation.

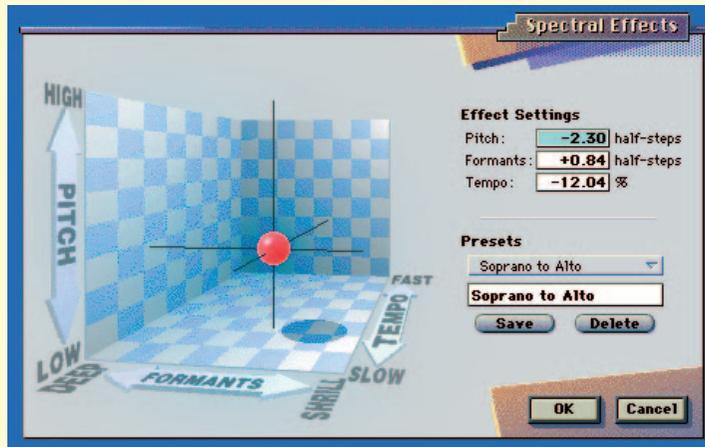
8. Create male/female duets from a single vocalist.

9. Process unlimited DSP edits in the background while you keep working (you can even record new MIDI or audio tracks while edits take place).

10. Apply new edits and DSP functions to soundbites before they are finished being background-processed.

So how does PureDSP do all that? Well, thanks to MOTU's ground-breaking research into the relationship between pitch, tempo and tonal quality DP 1.7 can create effects impossible on any other system by using spectral analysis that actually applies musical artificial intelligence. Audio is transposed using proprietary algorithms that preserve the original character of the sound. So no unwanted chipmunks singing or those nasty Darth Vader effects.

Of course, Digital Performer also offers the most powerful sequencing functions imaginable, plus an easy-to-operate user interface that's simple, yet elegant. Telling you all about this amazing software would take more pages than we have in this entire newsletter. So we suggest you call your Sweetwater sales engineer for complete information and your special pricing on Digital Performer 1.7!



5. Process entire musical selections, not just single soundbites at a time.

6. Apply musically intelligent transpositions without first having to convert to MIDI information.

7. Turn a baritone into a soprano without surgery.

KRK POWERED MONITORS

Like any musician who has heard a set of high-end powered monitors, you may have been wishing you had a set in your own studio. But the cost was sadly out of your reach. Or at least it was until now, because thanks to those very nice people at **KRK Systems** (the ones that make the incredible-sounding KRK monitors), you can power up the entire series of KRK

close-field monitors (or just about any other speaker system) with a little product they call the **POWER BLoK** (\$1595 list per pair)

This easy-to-install device saves you valuable rack space and eliminates the need for extensive wiring, plus it sounds fantastic. Rated at 140 watts into 8 ohms,

the POWER BLoK is actually a Pure Class A amplifier in the 0-5 watt range, then switches to Class AB operation from 5 watts on up. Total distortion is less than .05% at full bandwidth and frequency response is a superb .5Hz to 50kHz (+/- 0.5dB). In fact, the entire line of KRK monitors is available with POWER BLoK already installed (call for special pricing).

But telling you about these things isn't at all letting you hear them for yourself. If you need superb audio in your studio (and who doesn't?), we suggest you call us here at Sweetwater immediately for more detailed information and your special low price on the POWER BLoK (or speaker systems) from KRK.

ALESIS QS6: MAKING CREATIVITY AFFORDABLE

You know the feeling: Halfway through sequencing your latest, greatest, sure-to-be-a-hit composition, you (ARRGH!!) run out of voices on your synth. Let's be brutally honest about it, voice stealing ain't pretty. But what are you going to do? Your machine only has 16 voices and a new keyboard with greater polyphony is ridiculously expensive, right? Nope, sorry, wrong answer. See, with the new **Alesis QS6**, you get an astounding 64 voices of polyphony along with 8 megs of internal ROM sounds and the ability to expand to a full 16 megs. You also get 640 programs and a 61-note semi-weighted keyboard for the incredibly low retail price of just \$1099. Wow!

The QS6 has everything from realistic acoustic instruments to vintage synths, all accessible at the mere touch of a button and all with 16-bit digital clarity. The on-board Master Effects (reverb, chorus, flange, delay, rotating speaker and more) use the same advanced processor technology as Alesis's flagship QuadraVerb 2. Combine these great effects with the unit's extensive sounds and you're ready to create CD-quality mixes from the minute you hit your first note.

The QS6 can be instantly expanded simply by plugging in a 4MB or 8MB Alesis QuadraCard (like the critically-acclaimed Stereo Grand Piano card). These are the same cards that power the top-of-the-line QuadraSynth Plus Piano. Also included with the QS6 is the company's exclusive Sound Bridge software (for Mac and PC) which allows you to create your own custom sound cards using any sound files you can load onto your computer. This means the QS6 will never become obsolete. In fact, Alesis even ships the QS6 with a free CD ROM jam-packed with extra sounds to get you started, killer sequences and Steinberg's Cubase Lite sequencing software. All just to get those creative juices of yours flowing.

Sounds great, right? Want one? Sure! So call your Sweetwater sales engineer immediately for more information and your super low price on an Alesis QS6 of your very own!



NEW DIGIDESIGN PRODUCTS

Whenever a company like **Digidesign** introduces a new product or upgrades an existing one, the industry sits up and takes notice. Competitors scramble to play catch-up. People like you and me get in line to buy one. Case in point: **Pro Tools Software**. Pro Tools systems have been around for a few years, but most musicians, while they were lusting after

good? Well, at just \$795 retail, it probably sounds even better and by now you should be dashing for the phone to call your Sweetwater sales engineer for more information and your special pricing on Pro Tools software.

If you don't already have an Audiomedia card plugged into your Mac — or if you own a PC — Digidesign has also introduced the brand new **Audiomedia III** card which will run on both Macintosh and Windows operating systems. By adding this card to your computer, you open up a whole new world of super high-quality digital audio, as well as a host of impressive software DSP processors from Digidesign and its Development Partners (cool software like Waves and Antares Systems plug-ins which include compression, gating, expansion, a multitude of EQ functions — all totally within the digital domain!).

All by itself, Audiomedia III features up to 4 tracks of simultaneous recording and 8 tracks of playback at sample rates from 48 kHz all the way down to

11 kHz. You also get Digidesign's great new 18-bit A/D and D/A converters, two analog ins and outs, plus stereo S/PDIF digital ins and outs with super-clean 24-bit output!

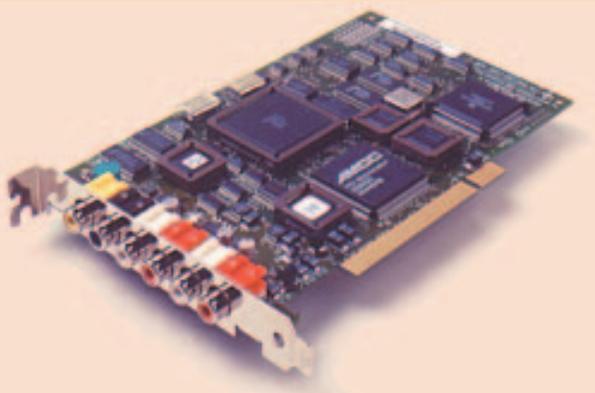


one of their own, may have found them a bit out of their price range. So the company decided to do something about it by releasing Pro Tools as a stand-alone application that can turn any Power Macintosh into a super-powerful 16-track audio workstation with no additional hardware!

Maybe you'd better go back and re-read that last line. Yup, that's correct: No additional hardware! Simply by using PowerMix, a Digidesign Audio Engine extension on your Power Mac, you have access to just about all the incredible features that have made Pro Tools an industry standard. Add an Audiomedia card for higher quality A/D/A conversion and S/PDIF digital ins and outs plus additional DSP processing power and you have a truly affordable digital workstation that rivals most of

the big (and expensive), stand-alone hardware-based systems.

Now you can do random access, non-destructive editing as well as mix digitally with graphic breakpoint volume and pan automation. MIDI recording is even supported. Sound



The price? Just \$1295 list, but if you call your Sweetwater sales engineer right now, you'll be pleasantly surprised at just how surprisingly affordable we can make owning an Audiomedia II or III card and some Pro Tools software!

WHAT'S HOT!

BEAM US UP, SCOTTY

You love playing with infrared light. Sure, everybody does. And here's a very cool way to play with light and get control over all sorts of musical expressiveness at the very same time. It's called the **Dimension Beam** and it's from Interactive Light. Here's the scoop: the Dimension Beam sends out a beam of infrared light that can actually translate any motion into an electronic expression signal. Move the neck of your guitar into the beam and it will trigger and control effects, lights, digital samples or even notes on a synth.



Sound interesting? It is, but it's also wild on stage because just by moving around, you can cause all sorts of audio havoc. Send continuous control information or pitch bend or even trigger effects processors, all with a wave of your hand — or your whole body. The Dimension Beam includes six factory presets and six user presets.

Sure, you're thinking that might be cool, but you want to know more. Like the price (which happens to be \$499 retail) and exactly how this thing works. Great, then you're ready to call us here at Sweetwater. Oddly enough, we're ready to tell you more, plus we'll give you your special low price on the Dimension Beam. So call now!



ADD AUTOMATION TO YOUR MIX WITH THE MIDI MIXER 7S

Affordable audio automation is here, and it's a Sweetwater Sound exclusive! Hot-rodged by **Mark of the Unicorn** for a major audio/video manufacturer, the amazing **MIDI Mixer 7S** automated mixers were modified (with gold plated connectors and high-gain output) to be part of a new random access video system. Due to a production overrun, there were a limited number of these custom units available, and we've acquired them all through a special purchase. We're now able to offer this unit to you at an exceptionally low price.

This is a powerful line mixer with realtime MIDI control of up to seven stereo inputs — from synths and effects to tape decks and mics. You can control the MIDI Mixer 7S from any

sequencer or the wheels and sliders right on your keyboard. Record your moves into your favorite sequencer to capture a fully automated mixdown. The 7s features bass, treble, pan and stereo effects sends on every channel, all controllable via MIDI, *not just mute and solo*. Plus the 7S offers eight stereo noise gates for an ultra-quiet mix. You also get a software control panel that allows you to operate the unit right from your Macintosh or PC. Individual channel input trims adjust for any signal level.

We have these fantastic units in stock now! The 7s carries a retail price of \$659, but you can buy your enhanced 7s while supplies last from Sweetwater at the unbeatable price of just \$299!

TIMECODE DATS

and other fine digital recorders

If you're working in the field of video or audio post-production, you know exactly how important timecode is to lock picture and sound together. In fact, hardly any TV shows, music videos or films would exist without this ability. Of course, for many years, all this took place in the analog

mined at a glance. What's more, the unit's two megs of internal RAM allow users to instantly and accurately hear what they are scrubbing, allowing them to find sync and edit points immediately. Add independent channel recording, variable length crossfades (0-300ms), Spot Erase and Auto Cue and the problems of assemble or insert editing become a thing of the past. The D-30 retails for \$10,995. Also new from Fostex is the **PD-4** 4-head portable timecode audio recorder with integral three-channel mixer (\$6995 list) and the **D-25** Studio DAT Recorder with RAM and sync (\$7995 list).

Another exceptional timecode DAT comes to us from **HHB Communications**. It's the **PORTADAT PDR-1000TC** (\$6995 list), a portable DAT recorder designed to perfectly match the requirements of experienced audio pros out in the field, whether they're working on a documentary for the Discovery Channel or on a major Hollywood movie. The unit was designed with the input and feedback of many professional sound engineers, so you know the HHB folks built this thing right. There's even a non-timecode version available, the PDR1000 (\$3995 list),

world. Today, ultra-sophisticated DAT machines are available that combine the accuracy and response of digital technology with the ability to read and write timecode.

As one of the world's largest producers of professional recording gear, **TASCAM** has a lofty reputation to maintain. With its new **DA-60MKII** synchronizable 4-head timecode DAT, the company continues its great tradition by retaining all the features that made the original DA-60 such a success, such as confidence monitoring, Memory Start and Rehearsal. The new unit includes an improved servo system that allows continuous timecode recording in Assemble Mode, plus improved signal-to-noise ratio, extended dynamic range and a built-in chase synchronizer supporting Sony P2 protocol. It lists for \$6499, and of course we carry all the other great TASCAM DAT recorders.

From **Fostex** comes the **D-30 Master Recorder**, proudly sporting a large, high resolution, backlit LCD display which allows the status of the machine to be deter-

mined at a glance. What's more, the unit's two megs of internal RAM allow users to instantly and accurately hear what they are scrubbing, allowing them to find sync and edit points immediately. Add independent channel recording, variable length crossfades (0-300ms), Spot Erase and Auto Cue and the problems of assemble or insert editing become a thing of the past. The D-30 retails for \$10,995. Also new from Fostex is the **PD-4** 4-head portable timecode audio recorder with integral three-channel mixer (\$6995 list) and the **D-25** Studio DAT Recorder with RAM and sync (\$7995 list).

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with the professional in mind. It comes standard with +4 dBu (switchable to -10 dBV) active balanced ins and outs with XLR connectors and has both AES/EBU and S/PDIF digital I/O. In search mode, the DTR-8 uses TOC information to locate up to 300 times normal play speed. Pretty impressive, but even *more* impressive is the special pricing we can offer you right now on this particular unit right now (it's even too low for us to print!)

The new **Pioneer D-9601 Hi-Sampling DAT Recorder** (\$2300 list) is just that: a machine that can record at high sample rates — up to 96 kHz as a matter of fact. For those of you who understand digital audio, you'll appreciate the fact that this gives the unit a frequency response that stretches from 2 Hz to an incredible 44 kHz which improves sound localization and provides clearer attack transients.



Finally, from **Panasonic** comes the latest in a long line of great-sounding professional quality DAT recorders, the **SV-3800** (\$1695 list) with enhanced audio quality (thanks to a 1-bit, 64x oversampling A/D converter and special high resolution ladder-type 20-bit D/A converter) plus multiple digital interfaces, shuttle search and single program play function.

We're rapidly running out of space and we haven't even mentioned the many fine DAT recorders available from industry-giant, **Sony**. We suggest you jump on the Internet and call up our special Sony DAT Guide by accessing the URL "http://www.sweetwater.com/DAT/DAT_Index.html".

So whatever your needs may be in DAT recorders, be sure to call your Sweetwater sales engineer for more information, dependable advice and your special low pricing on these and the many other outstanding machines we stock from every major manufacturer.



HOME KEYBOARDS — Continued from page 4

stores up to eight songs with 8 tracks per song. There's even a 3.5" disk drive for saving and storing your own songs, custom sounds and specialized musical styles. Add to all that a 130-watt, quad-amplified audio system, an 88-note weighted keyboard and beautiful real wood cabinet and you've got more music power (and good looks) than you can imagine.

At the top of the Kurzweil home keyboard line is the **Mark 150 Plus** which includes all of the great features of the Mark 10, but with a breathtaking Young Chang grand piano cabinet in any of eight finishes (that's a photo of it back there on page 4). For about the cost of a basic grand, you can get an instrument that can take you where no piano ever could!

Korg also offers a home keyboard version of its very popular i-Series instruments, the **i1 Interactive Music Workstation**. But don't let its name fool you. Though it truly is a sophisticated instrument for composing and recording in the studio, it's also very much at home in your living room



with its attractive wood cabinet (that's a photo of it below). The i1 features 32-note polyphony, an 88-note weighted keyboard (for real piano feel, but there's also — dig this — a switch that will instantly convert the action to any of several different feels, including a light, organ-type action), built-in 40-watt stereo speaker system and 80 superb, ultra-modern music styles.

Of course, the i1 comes with a 40,000-event sequencer, 14 megabytes of waveform memory (including a stunning, newly-sampled piano, all utilizing Korg's much acclaimed AI² Synthesis System) for ultra-realistic instrument sounds. You can even switch and swap song data from almost any MIDI instrument on the market thanks to the i1's ability to read Standard MIDI file format.

There's a lot more we haven't told you (and we're out of room). Luckily, your Sweetwater sales engineer is ready to tell you more, as well as give you your special low price on a home keyboard that's perfect for you or your whole family!

MULTITRACKS — from page 4

the company's great high-end DM-800 and features an integral 14-track fully-digital mixer plus 64 audio tracks (8 primary tracks plus eight layers of "virtual tracks" per primary). See page 2 for more on the VS-880.

Finally, offering both 8- and 16-track hard disk machines is **Akai Digital** with their **DR8** (\$3495 retail) and **DR16** (\$4995 retail) **Hard Disk Recorders**. Akai has actually been shipping hard disk-based machines for longer than anyone, so it only makes sense that these guys build a great machine. With 24-bit internal processing, 16-channel digital mixer, built-in mic preamps and a list of features that would fill this page, you might want to give these units some serious consideration.

Which format is the best, tape or hard disk? That's all beyond the scope of this brief overview of today's multitrack market (and we haven't even touched on computer-based multitracks!). So for more meaningful insights into digital multitracks, great advice and special low pricing on the best machine for your particular needs (hey, we carry them all!), call your Sweetwater sales engineer today. Or you can instantly access complete information and specs from our online Web Site home page!

THE WAVES AUDIO PROCESSING SYSTEM

By Seva, Waves Audio

Waves makes software audio processors providing the essential tools for processing and optimizing sound on computer-based editing systems such as those of Digidesign's Pro Tools and Sound Designer II, Sound Forge, Deck II v2.5, Adobe Premiere v4.0, Bias Peak, and MacroMedia Sound Edit 16, as well as real-time processing using Waves WaveShell-RT.

The quality and power of audio processing by Waves plug-ins are unique, comparable in sound quality to the high-end pro audio gear found in many of the world's top studios. Some of our products are thought by many of our users to be the best in the world in their class regardless of the technology used.

Waves plug-ins are not just a collection of particular effects, but a complete system providing all the essential tools you need to get world-class sound quality, including equalizers for the highest degree of tonal control possible; compressors and dynamic processors for adjusting all aspects of sound level and dynamics; peak limiters for getting the hottest possible sound while retaining quality; total control over the stereo effect; a unique top-quality reverb and distance simulation processor, and much more.

Waves plug-ins are transportable between a wide and growing range of systems. Once you buy a plug-in for one computer platform, you can upgrade it for many other platforms, usually at nominal cost, and many improvements and upgrade options are made available without any charge to end users. Your plug-ins will not become obsolete tomorrow, but will become more powerful with time thanks to Waves' policy of making improvements and enhancements available.

Waves plug-ins are designed to work together seamlessly so that you can combine them to create even more powerful processing and effects. For example, under both Digidesign's Sound Designer II and their TDM mixing system, you can combine individual processes used in Waves plug-ins in unique combinations to obtain the precise processors needed for your particular project.

To illustrate: several Waves plug-ins have powerful setup libraries that allow them

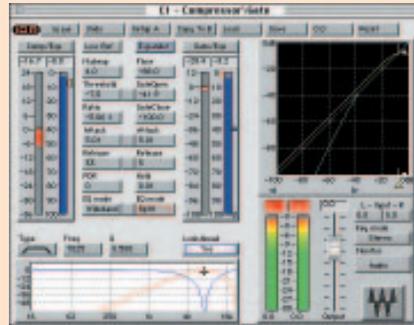
to be used for any number of specialized jobs. Buying a Waves **C1 Compressor/Gate** or **Q10 Equalizer** is the equivalent of buying 20 or 30 different dedicated processing devices. Did you know that the C1 Compressor/Gate is also a powerful hiss removal processor, a de-esser, an enhancer, and can even be used to remove excess reverberation? Did you know that the Q10 also can be used to alter digital pre-emphasis, has a range of pseudostereo effects, or can be used for proper equalization of old 78 rpm records, or to provide telephone or AM radio sound quality simulation? No other audio plug-ins provide this unlimited system power.

And the Waves user interface is also unique. We have not sacrificed usability to cosmetics. Waves click-and-drag mouse-driven interface, with optional keyboard entry, is consistent across platforms — learn it once, use it everywhere. Waves put maximum effort

into user ergonomics, and our plug-ins provide a wealth of graphic feedback that tells you precisely what you are doing to the sound at each moment. Our meters are superb, allowing you to see the effects of most adjustments instantly in helpful graphical displays.

The plug-ins now offered include:

The **Q10 Equalizer**: 10-band high quality parametric stereo equalizer, independently adjustable on two channels, or 60 bands of user-assignable EQ under TDM, with almost 200 effects and processes in the Q10 setups library, most of them user-



customizable. A real "Swiss Army Knife" of equalizers, which will do any EQ task you can think of.

The **C1 Compressor/Gate**: The ultimate high-quality processor for adjusting the dynamics of audio signals. Compression, gating, dynamic filtering, expansion, enhancement, sidechain EQ and more. With user-customizable setups library for many different effects and processes, and an extensive tutorial manual. Includes all the normal dynamic processor effects, and many useful ones you have never previously imagined.

The **L1 Ultramaximizer**: Many pro users say this is the best peak limiter in the world, superior even to \$8000 tube products. Ideal for getting hot sound with minimal side effects. Excellent for all multimedia applications, and used by the world's top multimedia software houses. Also ideal for CD mastering, incorporating the IDR (increased digital resolution) process which improves quality and dynamic range for very quiet sounds, and which independent tests have found to be superior to the "big name," much-hyped quality enhancement systems.

The **S1 Stereo Imager**: Provides detailed control and enhancement of stereo images, without the nasty side effects of many other stereo processors.

TrueVerb: Not just a state-of-the-art reverb that currently runs in TDM, this plug-in has been designed to correctly simulate the actual response of sounds heard in a good room. You can adjust not only reverb time but also room size and even the distance of the sound from the listener. A uniquely natural reverb, easy on the ear, and providing a virtual reality effect of acoustical accuracy unlike anything else available.

AudioTrack (\$000): A low-cost entry point into the world of Waves plug-ins, offering a combination

— Continued on next page

SOUNDWARE SCENE

By Daniel Fisher, Chief Soundware Engineer

As we mentioned last issue, the Sweetwater Soundware Development Facility has been burning some serious midnight oil on a variety of projects. Let me get you caught up on some of them (at least the ones I can talk about right now).

- Requests for our free **Stratus/RSI Audio Demo CD** and **K2000/K2500 Support Products and Peripherals Catalog** have exceeded our wildest expectations. We are now close to depleting our second mass duplication of the CDs, as well as our second printing of the catalog. If you still haven't requested your free personal copy of either, please call your Sweetwater sales engineer today.

- Recently, I was given the exciting opportunity to create new Programs for the Korg Trinity and Korg Prophecy keyboards. After completing these projects I was so pumped up on these two new Korg products that I had to tell everyone how great they were. This resulted in our exclusive **Korg Trinity Audio Demo CD**. This free CD has over 64 minutes of revealing examples and specs which include 45 minutes of uninterrupted, fully produced demo sequences that will make this CD worth keeping in your permanent collection. To get your free copy, along with some full color brochures simply call or e-mail your Sweetwater sales engineer and put in your request. You will soon see why we believe that every serious musician should have a Kurzweil K2500 and a Korg Trinity side-by-side.



- And speaking of Kurzweil, I'm now putting the finishing

touches on our most requested Power Translator Series disk yet: **The Power Translator String Sections**. This product, which will be nearing completion as you read this, supercharges your K2000/K2500 with a multitude of lush violins, violas, cellos, basses, orchestral and symphonic string sections, each having stereo and mono versions of arco, marcato, pizzicato, muted, ponticello, tremolo, bright, warm and attack playing styles. Many of these are sampled at several dynamic levels for realistic crossfading.

For those of you who are new to our Power Translator concept, here's a quick mini-lesson: Power Translator disks are specially-designed floppies that merge the huge sample libraries from the Roland Project Series CD-ROMs with the incredible power of Kurzweil's VAST synthesis engine and internal ROM Samples, resulting in the most expressive instruments ever played from samples. Those of you who own any of our Power Translator Brass Sections, Power Solo Strings or Power Winds already know just how controllable and musical these String Sections are going to be.

- If you're into Techno, Ambient or Dance music and want to pump up your K2000/K2500, you've GOT to have our new **Techno/Ambient Programs** disk. It has 100 Programs that'll really wake up your sequences, including many that pulse to the MIDI Song Clock's Tempo, as well as deep-house 303 and SH-101 Basses, throbbing effects sounds, industrial clangs and

— Continued on page 11



TC ELECTRONIC'S M2000: ART+SCIENCE = MAGIC

All too often, today's musicians have to make compromises, sometimes sacrificing sonic quality because of the prohibitively high cost of most true, pro studio quality gear, particularly effects processors. If you've been wishing for a really great reverb that can do all sorts of other power processing like pitch shifting, delay, chorus, EQ, de-essing, phasing, compression and gates (just to name a few), but haven't felt comfortable "breaking the bank" to get the audio quality you really want, the engineering group at **TC Electronic** has created the box for you.

It's called the **M2000 Stereo Effects Processor** and it offers serious musicians access to the very finest in processing at a price that's significantly less than a new BMW — \$1995 list to be exact. True, that's still a pretty big investment for many musicians, but the payback in terms of audio quality, versatility and dependability over the long haul (expect to be using this unit well into the next century) will more than make up for it. And wait until you actually *hear* what this processor will do!

Among the MC2000's reverbs is the totally unique Co-efficient Optimized Room Emulator (C.O.R.E. if you want an acronym) which is built on an entirely new concept for reverberation, the result of years of intensive research. Words can't do it justice; this is one sound that just can't be described on paper.

Add an array of pitch shift effects (up to six voices!) plus a full range of delay effects, as well as all the dynamics processing you'll ever need and you've got some serious processing power here. But there's also M2000's Dynamic Morphing feature which allows you to smoothly morph from, let's say, a chorus effect at low levels to flanging at high levels. The true, dual engine configuration means you can run two full-blown effects simultaneously on two individual effects sends. Wow!

There's more to tell you about this exceptional processor — more than we could possibly fit into this tiny space, so call your Sweetwater sales engineer for more information, complete specs and your special low price on a TC Electronic MC2000.

ROLAND PRODUCTS

— Continued from page 2

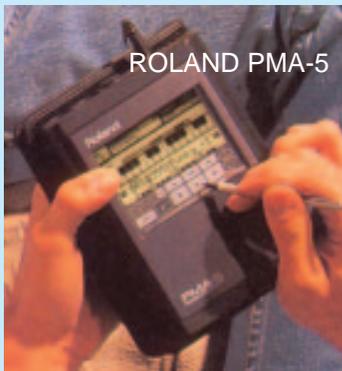
on page 11 for more details), and two amazingly versatile outboard units, the **Boss GX-700 Guitar Effects Processor** (\$695 list) and the **Boss SX-700 Studio Effects Processor** (\$645 list). The **GX-700** does exactly what you'd think it might: It gives you all the guitar effects you'll ever need (including reverb, compressor, limiter, auto wah, EQ, flanger and phaser), but it also adds many features never offered in an effects box before, like wah pedal, intelligent (three voice) pitch shifting/harmonist function and the ability to produce an incredible array of amps/speakers (Marshall, Soldano, Fender, Boogie, etc.), microphones and mic placement emulations. Space prevents us from going into detail here (that's

why your sales engineer is here), but it's very cool and super affordable!

The **Boss SX-700** is a more "traditional" effects box (if you can use that word with a Roland/Boss product) which offers mainstays like superbly-detailed reverb and delay,

chorus, flange and more. But it also gives you access to Roland's three-dimensional RSS spatial effects so you can move images pretty much anywhere within the soundfield. With 3-D panning, sounds can actually appear to be swirling around the room. RSS can even be combined with delay or reverb. On top of this, you have a four voice intelligent pitch shifter for creating super harmonist effects (make yourself sound like Crosby, Stills, Nash and Young). The CD-quality sampling rate and 18-bit A/D/A conversion ensures you're getting absolutely pristine studio quality sound.

To learn more about these and other innovative new products from Roland and for your special low pricing on the equipment you're most interested in, give your Sweetwater sales engineer a call right now!



WAVES PROCESSING

— Continued from page 9

of equalization, compression and gating which will be very useful for basic processing of audio sound files. Obviously this is not as refined as our high-end products, AudioTrack is nevertheless everything a lot of musicians will need without breaking the budget.

Various WaveShells: A WaveShell is what allows Waves plug-ins to run on particular computer-based platforms. WaveShells are already available for the following systems: Digidesign Sound Designer II, Digidesign TDM, Adobe Premiere (includes Deck and PEAK), and SoundEdit 16. There is also a Real Time WaveShell-RT that allows Digidesign processing cards such as AudioMedia II to be used for processing audio in real time, just like outboard gear.

Pricing for the Waves plug-ins varies based upon the platform you will be using it on (Sound Designer, TDM, etc.), but they are all very competitively priced and absolute bargains compared to their hardware-based counterparts.

Waves processors are a complete system with unlimited and continually expanding flexibility. The individual products for single platforms are the best of their kind and superb value on that basis alone, but that's truly only the tip of the iceberg.

For further information on specific Waves products and some very interesting demo files, see our online Web page at "<http://www.waves.com>".

Q&A — Continued from page 5

requirement of a computer or other AC load. For loads, the VA rating multiplied by the Power Factor is equal to the Watts rating. The VA rating of a load must always be greater than or equal to the Watts rating because Power Factor cannot be greater than one.

I know this probably sounds like a lot of techno babble, but when you see a power supply (like a UPS) rated in volt amps (instead of watts and amps), it simply means that they aren't taking any Power Factor into consideration. It would be a little misleading to give the rating in watts, because that would imply that some Power Factor had been assumed in the rating (which is often done and can indeed be misleading). If you intend to be working with any device like a computer, motor, or anything that presents a highly reactive or inductive load to the supply, then you will need to allow a little headroom on your supply for this.

Problem is, however, that if a device has its power consumption rated in watts, then that usually means they have allowed for the Power Factor of that device. In those cases you can usually just match the consumption rating (in watts) of the various loads to a wattage rating of a power supply (like a UPS). If the supply is rated in volt amps, then just multiply the volts and amps together (which will give you a "fantasy" wattage rating) and then compare that to the wattage ratings of the loads. Because these loads should have had their Power Factors taken into consideration when calculating their wattage ratings you should be fine.

If all of this is too confusing (as I suspect) then feel free to call us here at Sweetwater. These are advanced concepts that generally do not really have to be fully understood in order to use a UPS or similar device. We'll help you get the correct item.

ROLAND AMPLIFIERS — Continued from page 2

of the finest tube amps, but with the reasonable cost and super-stability of modern solid state technology. If your guitar player (or *you* for that matter) has been craving the time-honored sound of a Fender Bassman or Tremolux, you'll be blown away by how accurately the Blues Cube can capture that tone and a whole lot more. Whether you're doing blues, jazz, rock or country, the Blues Cube can dial it in for you. At 60 watts, the BC-60/310 will give you the volume you need for almost any venue. The 30-watt BC-30/210 is great for smaller clubs and in the studio (plus it's ultra-affordable).

So before you spend your money on some ridiculously expensive tube amp, give a listen to the Blues Cubes. They're designed and built by Roland right here in the U.S.A. to deliver the sound guitarists really want and need. Oh, and with their dark cream tolex covering and brown grill cloth, these puppies also give you the cool, vintage look you've come to love. So give your Sweetwater Sound sales engineer a call for more information on the KC-500 keyboard amp or the Blues Cubes from Roland. You won't believe the quality until you hear them for yourself!

By Jim Miller

One of the benefits of writing this column (aside from the adoration of my many thousands of fans, of course) is that I'm considered a member of the Sweetwater staff and thus able to do things like attend the Roland Product Seminar which was recently held downstairs in the mini-hall affectionately known as "Sweetwater University." I wish all of you could have attended, but of course that would be impossible, since there was barely enough room for the thirty or so people who did attend (on a Sunday, I might add) this "hands-on" introduction to the latest goodies from one of the industry's biggest names.

The item I was personally most interested in was the brand new system upgrade for my **VG-8 Guitar System**, dubbed the **VG8S-1** (\$195 list). Seems that Roland actually shipped thousands of VG-8s last year, knowing that it sported only about two-thirds the power and features they would eventually pack into it. This is only logical, since they've now had a year of feedback (no pun intended — really!) from guitarists around the world about what might make this great product even better. I personally think it's pretty perfect as it is, but I'm thrilled to have even more features like brand new guitar "models" such as the semi-hollow body Rickenbacker and Gretsch Chet Atkins, a Telecaster, Les Paul with P-90s, a Danelectro with "lipstick tube" pickups and a lot more. The graphic display also has been upgraded, so your new models actually look like the real guitar you're recreating. You also get new amp models including Vox AC-30, Soldano, 4x10 Bassman and a modern Marshall.

Want more? How about a wah pedal or an intelligent pitch shifter that will allow you to play those ultra-cool harmonized leads (like the Allman Brothers Band) all by yourself? How about "B-bender" effects without having to carve up your axe? Or how about completely new algorithms for hollow body guitar sounds? Heck, I just completed a big recording project using *only* the VG-8, despite having access to lots of "real" guitars and amps, and everyone involved in this project was blown away by the sounds.

Getting back to the seminar (I tend to get a little overenthusiastic over the VG-8), it was also fun to watch,

TECH NOTES

hear and participate in the other product demos (XP-80, VS-880, PMA-5, etc.), as well as having the opportunity to hear the company's new KC-500 keyboard amplifier and Blues Cube guitar amp. But don't get depressed because you missed this event. Believe it or not, this wasn't fun, this was work for all those who attended (except for me, of course). See, the reason behind the seminar was to make sure that your Sweetwater sales engineer knows as much as possible about the latest Roland products so that they can pass along that knowledge to you. Of course, many other companies besides Roland also regularly put on similar training sessions at Sweetwater.



But how does this benefit you? Well, it's pretty simple, and it's the reason I'm telling you this story (yes, I do have a point, I'm just taking the scenic route getting there!). With all the many incredible new products available today, you really need to get the best possible advice before spending your hard-earned cash. And that's not always easy because every manufacturer invests a lot of time and money making sure their ads and brochures look great and describe their latest products as the absolute hottest in the business. Nobody's full color brochure says "Almost as good as our competitor's prod-

uct" or "Not quite as wonderful as you might hope."

So you have to count on someone to filter out all the ad agency copy and give you the clear facts: Does a particular product have the specific features you need for *your particular application*? The VG-8 may be great for me, but how about you? That's where your Sweetwater sales engineer comes in. He or she spends a ton of personal time (like evenings and weekends) making sure that you get the most accurate, dependable first-hand information on any product you may be looking for.

I know this may come across as sounding like an ad for Sweetwater, but when it comes to spending my own money, I want to be sure that I have all the information I need before handing over a check or totally maxing out my credit cards. So, like you, I depend on my own Sweetwater sales engineer to give me advice I can count on before I make a purchase (hey, companies don't deliver free gear to my door either — go figure).

So when you're thinking about that new piece of gear — you know, the one that'll make your studio *just perfect!* — you might want to think about how easy (and costly) it would be to make the wrong purchase based on inaccurate information. That's why the Sweetwater sales staff puts in all those extra hours just to make sure the gear you buy is the gear you need. Oh, and don't be mad at them just in case they accidentally have a little fun while doing it, okay?

Say, every so often I have to mention this following bit of enlightenment: While it's very cool to have the latest whiz-bang, killer multitrack or keyboard or whatever in your studio, sometimes the little things can make your studio time much more enjoyable. No, I'm not talking about those little chocolate donuts here. See, I've learned that a small investment in something as seemingly insignificant as cables or a patch bay or some really comfortable headphones can mean a lot. Having that ancient mic stand tip over and smack you in the face right in the middle of a great vocal track is not much fun, is it? Losing your data because you didn't want to spend an extra couple of bucks on a high quality SCSI cable doesn't make much sense, does it?

So go ahead and dream about all that new, expensive gear, but do yourself a big favor and take a good look at your studio. Are you using your old guitar cables to hook up your effects processor? Does the wiring in your setup look like a pile of spaghetti? Are your headphones giving you a headache? Did you scavenge your speaker wire from an old lamp you had in the garage? Odds are there will be several places in your studio where an insignificant investment will pay high dividends in increased productivity and dependable performance. This is a lesson I personally learned the hard way a few years ago and I'm passing it along to you now. Believe me, with a minimal amount of cash, you can make your studio sound better and be a more comfortable place to work!

Well, as usual, I'm out of space. Thanks to all of you who have read my column for the last four years (has it really been that long?). And to all of you who are reading it for the first time: heck, I'm just glad you're not wasting time watching too much TV. *Adios* until next time!

SOUNDWARE SCENE — Continued from page 9

digital confusion. Pick any three sounds and start your next album. And the best part is that these Programs don't require any Options, ROM Blocks, P-RAM, or particular engine version. They just work great on any K2000/K2500/K2vx. And with a price of \$39.95, these whack Programs deserve a place in every Kurzweil owner's library. Before your next project, call your Sweetwater sales engineer and get with the Techno/Ambient Programs!

- Are you a "Retro-Keyboardist"? If your definition of a heavy keyboard is one that weighs more than 100 pounds, then listen up. Sonic Arts has teamed up with Sweetwater Sound to develop the ultimate vintage Motown, Funk and R&B samples for the K2000/K2500. It's called "**The Sounds Of The 70s**" and it contains over 800 megs of pianos, Clavs, Rhodes EPs, Wurlitizers, B3s, Farfisas and Vox organs, bass guitars, nylon guitars and huge drum kits, all recorded in real Motown studios. This two CD-ROM set is a steal at just \$250! If you're old enough to know why these instruments were better than electronics, you owe it to yourself and your music to bring that sonic power back to your studio.

- Well, if you're still reading this Soundware Scene article, it means that you're really into Soundware. Perhaps one of you is the person I'm looking for. As you know, Sweetwater Sound is the world's only music retail store that has its own full-time Soundware Development Facility. Over the years it has proven to be an important part of our Sweetwater "value-added" legacy of service, support and the best hands-on knowledge in the industry.

Due to the rapid growth in retail and soundware products, we are once again looking to add another member to our Soundware Development Team. We need someone who lives to program synths and who would rather sample than eat. Simply put: "We want the best!" We are especially interested in someone who has programming and sampling experience with E-mu, Akai and Roland technology. If you're the person we're looking for, please contact me via mail, e-mail or fax at the numbers below. Include your name, phone number, e-mail or ground address and a short bio explaining why you'd be perfect for the job. I'll answer all responses, but please, no phone calls. Thanks!

— Daniel Fisher, Chief Soundware Engineer, Sweetwater Soundware Development Facility

5335 Bass Road, Ft. Wayne, IN 46808 daniel_fisher@sweetwater.com fax# (219) 432-1758 (att. Daniel Fisher)

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