Every keyboard player acknowledges the instruments that in their particular time were the “next big thing.” Historically, it’s easy to point to certain instruments that made the big leap and introduced an entirely new sound or breakthrough technology: The Minimoog, the Roland Jupiter 8, the DX7, the D-50, the E-Mu Emulator, the Kurzweil 250 and Korg M-1 — each in its own way was a milestone in music technology and a “jumping off point” for many instruments that followed.

For several years now, musicans have been asking the big question: “What’s next?” What’s beyond the sampling and sample playback technology that has dominated the sonic landscape since the late 1980s? Or the analog modeling that emulates synth technology from the ’60s and ’70s? What’s next for creating startling new sounds? And most importantly, just who is going to build this “breakthrough” instrument?

While recording technology has advanced exponentially over the past few years, one might think that synthesis technology had essentially matured. With very few exceptions, the synths being produced by all the “big players” seem more to be refinements of existing architectures, rather than radical departures.

Well, we do have an answer. Roland has set out to challenge that notion with the breathtaking new V-Synth ($2695 list), a revolutionary synthesizer that integrates Roland’s most powerful sonic breakthroughs in many new and exciting ways: VariPhrase, COSM, sampling and analog modeling. The company has built upon its own landmark technologies to create a totally new synthesizer with ultra powerful tools for shaping sounds.

Incredibly, despite the V-Synth’s sophisticated capabilities, its controls are very accessible; you can easily create stunningly dramatic sounds full of life and motion without so much as a glance under the hood! There’s no long, painful learning curve required with the V-Synth!

I was lucky enough to get to spend a long weekend with one of the very first V-Synths off the line, so you’re definitely going to want to check out Page 2 for an exclusive “hands on” report. Meanwhile, take a look below at just a few of the features that Roland has packaged into this impressive new synth! — Jim Miller

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**The State of Music Software on Mac OSX**

The new Apple operating system, Mac OS X, is very sophisticated, being based on UNIX technology. It’s designed to divide all available CPU processing power into discrete time periods, that are then distributed to active processes. The special thing about Mac OS X is that the Apple developers have given maximum priority to audio and MIDI processes. This approach sees such tasks being given priority over other processes that may be competing for CPU resources. As an example, once audio and MIDI processes hit the CPU, they are activated in less than one microsecond — or one thousandth of a millisecond!

Originally, MIDI support and any native audio plug-in formats were not integrated into any Mac OS — up to and including version 9 — and the audio facilities offered by the SoundManager were inadequate for professional use. This led to numerous competing standards such as ASIO, OMS, MAS, VST, RTAS, and many more. With the release of OS X v.10.2 (aka Jaguar), MIDI and audio communication with all applications is managed via integrated parts of the operating system. This system-level support makes the task of combining different components such as audio interfaces, MIDI hardware and software from different manufacturers much simpler.

It also dramatically reduces some of the issues that have been nagging users for some time, chief among them audio latency. Real world testing in OSX puts native audio latency in the under 10ms range, more than fast enough for most pro applications.

In this issue we will take a look at all the latest, greatest software available today for Apple’s OSX.

— See Mac OSX feature on Page 7 of this issue
Roland’s new 61-note V-Synth explores new sonic territory

How to best sum up my 48-hour Roland V-Synth test drive? Okay: If I could have only one synth to score Vin Diesel’s next mega-hit, I’d pick the V-Synth. Its sounds are hip, compelling, gritty and in-your-face. They are hypnotic, intense and pack an amazing sonic punch that’s impossible to ignore. What’s more, the onboard controllers all do amazing and often unexpected things with the sounds, twisting and warping them into dozens of complex mutations that grab you, shake you and don’t let go. Hmm, sort of like a sonic pit bull...

Though this instrument is quite capable of being subtle, in my opinion that’s not its strong suit. There are smokin’ rhythmic loops that link up to the onboard arpeggiator, guaranteed to inspire you to start composing within minutes of powering the unit up!

Beyond all that, the V-Synth actually has the capability to let you record your own 24-bit samples up to an amazing 96kHz sample rate. Even better, while both the A/D and D/A converters are 24-bit, all internal sound generation is via 32-bit floating point processing, ensuring enough headroom for internal processing. Folks, this is light years beyond our old 16-bit/44.1kHz sampling capabilities!

Looking at the V-Synth’s front panel, over on the right you have three structures, which control how sound flows through the V-Synth’s inner workings and are the “building blocks” of your specific Patch. The active Structure lights up (very cool). Structures determine the signal path and flow and are inherited conceptually from the legendary D-50. Also, just as in the D-50, you have reverb, chorus and sophisticated multi-effects, though this time around the effects are absolutely state-of-the-art, 24-bit, clean and quiet.

Add your own “touch”

The most striking controller is found all the way on the left side of the front panel. This is the Time Trip Pad which offers a degree of sonic control never before possible. Simply rub your finger along the pad in a clockwise or counter-clockwise motion to scan a waveform forwards or backwards in time — without changing pitch or formant. Slow a waveform down to uncover rich harmonic content, speed it up, or freeze it at any position—all with the touch of your finger. Imagine adding expressive phrasing to a lead vocal sample or manipulating a drum loop like a DJ without changing pitch. The TimeTrip Pad lets you create amazing new sounds and effects not possible in software.

Just as dramatic is the D-Beam, which you can also use to alter your sound, this time simply by moving your hand over the controller. Again, you can assign whatever

Controller you choose to this controller: Time, tempo, pitch and so forth.

Keeping you “in touch”

The Touch Screen dominates the front panel. Honestly, after you get used to using this touch sensitive display, it’s pretty hard to go back to another instrument that doesn’t offer its convenience and functionality. What’s more, Roland has engineered some of the best looking Touch Screen displays I’ve ever seen. While most of us hate the multi-level menus that today’s sophisticated synths require to conserve hardware space, the V-Synth display actually makes it painless to navigate the instrument’s architecture! Bonus points to the design group for this feature.

Other front panel controls include Arpeggiator, Patch Palette, OSC1 and 2, COSM1 and 2, an ADSR TVA section plus your standard Roland pitch bend and modulation lever.

VariatePhrasing Oscillators

Each V-Synth oscillator can be one of three types: A new version of analog modeling, a sample or external audio input. Each type has some special new features, but it is the VariPhrase control over samples that makes the V-Synth totally unique and is a large part of its characteristic sound. For starters, imagine the sound of a single key strike of middle C on a piano. The resulting sound is percussive attack with lots of overtones, followed by a quick flurry of harmonics decaying as the sound fades away.

Most of this happens so quickly we don’t consciously hear it. But the V-Synth allows us to slow that imperceptible harmonic chaos to an audible speed where we can hear the piano decay at an eerie, almost tortured pace: this “sound within the sound” becomes the source material for creating totally new sounds. This is a central part of the V-Synth’s “magic.”

Putting it all together

The mark of a truly great instrument is that the average person can sit down and start playing (or tweaking), and before they know it, hours have slipped away. The V-Synth passes that test with flying colors — once you start turning a few knobs, you’ll find you simply can’t stop. The V-Synth also makes it easy to apply its powerful synthesis to your existing sound library, too — just connect a USB cable to your Mac or PC and you can drag and drop your favorite WAV or AIFF files in for VariPhrase encoding and V-Synth manipulation. Your existing library will take on an entirely new life!

I think we can all agree, the “next big thing” is already here. The sooner you call your Sweetwater Sales Engineer, the sooner you’ll have a Roland V-Synth in your studio. — J. Miller

www.sweetwater.com/vsynth

Compact and affordable: The Zoom MRS-802

Never before has such an awesome array of studio recording tools been fit into such an affordable, portable package. The Zoom MRS-802 ($979.99 list) features a built-in 20GB Hard Drive that will provide roughly 60 hours of 16-bit uncompressed recording time. Tracks sound sweet thanks to the precision 24-bit A/D and D/A signal processing. It has 8 mono digital recording tracks, but the drum machine (with over 400 drum and percussion sounds) uses its own discrete stereo track. There’s a stereo master track for mixing down, so it’s like having a 12-track recorder. Each of the 8 mono tracks and the stereo master track have 10 virtual takes per track. What’s more, the unit includes a host of Zoom-quality killer multieffects.

The MS-802 has a full range of non-linear editing capabilities, including cut and paste, copy, move, reverse direction play and time stretch/compress — just like many more expensive models. These editing functions also help out with the sophisticated sampling and looping functions the MRS-802 offers. You can import and edit samples and loops using the optional CD-R/RW or the optional USB interface and a version of the MRS-802 with a built-in USB interface is also available.

www.sweetwater.com/mrs802
Ilio Vienna Symphonic Library sets a lofty new standard

Ever since the advent of sampling technologies in the 1980s, sound designers have struggled to capture all the expressive nuances of modern orchestral instruments in the limited amount of sample RAM typically associated with most hardware samplers. They also had an uphill climb when finding the performers who were willing and able to provide the high quality sonics that end users were demanding. Suddenly, all that has changed!

The Vienna Symphonic Library from Ilio is without a doubt the most ambitious orchestral sample library ever produced. Created by a gifted team of over 40 top producers and engineers, plus the talents of dozens of Vienna’s finest musicians, this is truly a groundbreaking library of monumental proportions. At long last, a company has made the huge commitment in dollars and man-hours to produce what must be considered the definitive library of orchestral sounds, all of which have been performed by some of the finest European performers in the best sonic environments.

In producing the most accurate acoustic samples, the producers recognized that certain instruments — violins, for example — can produce a particular pitch on more than one string, so that an open D will sound quite different than a stopped (or fingered) D on another string. What’s more, a note (let’s say C natural) will sound different if it is preceded by an F or a G or an A, etc. This particular issue has been addressed to a remarkable degree for unsurpassed realism. Beyond that, most instruments also have a multitude of articulations, which up to now has required (at best) homogenizing the instruments into one or two styles. The Vienna Library may have as many as six articulations per instrument, all under user control for the most amazingly real samples ever heard!

Complete Orchestral Package

Now you can get the entire First Edition including the Orchestral Cube and the Performance Set with over 95 gigabytes of easy-to-use, yet extremely powerful orchestral production tools, plus automatic membership in the exclusive Vienna Innovation Program (VIP), which buys you bargain upgrades and exclusive downloads. Available as a multi-disc DVD set in either GigaStudio or the EXS24 format, you can own this “Magnum Opus” of sample libraries for $3,090 list (your Sweetwater price will, of course, be much lower).

The Orchestral Cube

Get 45 gigabytes of magnificent multisampled Strings, Brass and Woodwinds and Percussion in one super-value package (with sections also sold individually). Recorded in a specially built “Silent Stage,” the top musicians, producers and engineers from Vienna’s wealth of classically trained talent gathered their skills to create a true orchestral sampling marvel. This DVD multi-disc set for Giga and EXS24 retails for $1890.

The Performance Set

Why wait for the future of sampling, when you can get it now? The 50GB Performance Set represents sampling’s next phase from fixed, inflexible recordings to pure fluid expression. When combined with Vienna’s included MIDI Tools, you’ll get the realism of a live performance with the flexibility of multisamples. You simply won’t believe your ears! This DVD set for Giga and EXS24 retails at $1,490.

Demo Cube

Need a bit more convincing before parting with your hard-earned cash? Hey we understand; companies have made such lofty claims before! Check out some amazing demos, interactive product info and videos, plus 650MB of demo sounds for GigaStudio on interactive CD-ROM and Giga CD-ROM for just $10. If you happen to need a Giga or EXS24 system to take advantage of these sensational samples, we can help with complete turnkey systems starting as low as $399!

www.sweetwater.com/eslcomplete

Capture that elusive tone: Vox introduces the Brian May Special

I’ve often wondered why Brian May is so often overlooked when people talk about their favorite “guitar heroes.” After all, Brian’s guitar work with Queen resulted in some of the most memorable rock anthems of all time. May’s wall of Vox AC30 amplifiers has thrilled concert-goers for years. Along with his home-made “Rod Special” guitar, there’s another device that contributed mightily to May’s guitar tone. It’s called the “Deacy” in honor of its creator, John Deacon, Queen’s bassist, and it’s an unlikely combination of a piecemeal amp (almost certainly lifted from a discarded car radio) and May’s handcrafted “treble booster” pedal. Along with his guitar, this constituted an entirely original, surprisingly pleasing and unmistakable sound quality on classic songs like Queen’s “Bohemian Rhapsody.”

The Deacy is one of May’s most prized possessions and, due to its age, an irreplaceable treasure. Now, in collaboration with Brian himself, Vox has introduced an amplifier that will allow its users to achieve the much sought after effect of May’s homespun system. The Brian May Special ($199.99 list) is a 10-watt combo amp painstakingly designed to capture every sonic characteristic of the original setup. Unlike many other small amps, this is truly a recording amp, not just a practice amp. Vox added several enhancements: Controls for Gain, Tone, and Volume, plus a High/Low Gain switch. A separate output allows the booster section to drive another amp. So while the wall of Vox AC30s is sadly sold separately, the Brian May Special can easily interface with that wall of doom when your budget allows. Plug in today. You’ll be rocking your audience in no time! — J. Miller

www.sweetwater.com/brianmayamp

www.sweetwater.com/brianmayamp
NAMM Guitars: Expanded lines, new models, enhanced features

Guitars are always a big item at NAMM Shows, and this year was no exception. Not only were there plenty of new models to drool over, the general consensus is that we are truly entering a second “Golden Age” in guitar building. Even so-called budget instruments play amazingly well and sound terrific. But naturally, the biggest oohs and ahhs were reserved for those high end beauties that play like a dream.

GIBSON

Gibson introduced the ES-333, an affordable new model with a satin finish but with the same double-cutaway body, solid maple center block, laminated top, back and sides as the ES-335.

A new Les Paul Studio model in muir wood reaffirms Gibson’s commitment to producing quality instruments that utilize only Forest Stewardship Council and SmartWood Certified woods. Gibson partnered with the Rainforest Alliance when it introduced the world’s first line of eco-friendly SmartWood guitars. This guitar has a muiracatiara, or muir, top and a mahogany back. Meanwhile, the limited edition Les Paul Supreme features highly figured maple on the back as well as the top. Simply stated, this guitar is stunning. Gibson has made over 100 different Les Paul models since 1952, but many would argue that none has featured the degree of ornamentation represented in the Supreme.

FENDER

Last year, Fender® released a new line of affordable, American-made Strats dubbed the Highway 1 Series. This year they’ve expanded the line to now include Telecasters®, Showmasters®, J-Bass®, P-Bass® and Toronados®. The ‘tele features a sunburst finish, alder body, maple neck, rosewood fingerboard and Vintage Style single-coil pickups.

This year the company graced the Standard Stratocaster® series with a few velvety “Satin” colors. The finish drew a great deal of attention from onlookers and certainly caught our eye. Fender also had on hand a brand new Limited Edition series that includes a Strat, Tele, P-Bass and J-Bass available in either a Pink Paisley or Blue Flower design. This ’60s-inspired limited run is certain to be snugged fast by smart collectors.

TAKAMINE

The LTD–2003 from Takamine exudes beautiful craftsmanship in every detail. It features a solid spruce top and solid rosewood back with the stunning inlay work that has become a Takamine hallmark. A great-sounding pickup and preamp are also included. The soaring bald eagle rosette and eagle eye fret inlays are meant to raise awareness of our collective responsibility to care for our fragile planet. A portion of each purchase will go to the Cousteau Society and its work in the preservation of wildlife habitats worldwide.

MORE GREAT GUITARS . . .

Paul Reed Smith Guitars builds beautiful instruments with uncompromising tone, playability and longevity. If you’ve followed PRS the last few years, you’ve probably taken notice of the classic Dragon guitars introduced in small quantities and at a substantial investment. While a 2005 model was not on display, PRS did show the Santana SE Shaman, which will be available in extremely limited numbers and anyone found possessing one will have a true collector’s item.

Godin introduced a new spruce version of the Flat Five and Five X. A silver leaf center with poplar wings capped with a solid spruce top lends to the instrument’s unique beauty and the electronics include a modified Schaller bridge with LR Bags saddles. Both sport Flat Five humbuckers, while the Flat Five X includes piezo pickups in the bridge and a graphic EQ.

Martin overwhelmed us with the sheer number and variety of its current Limited / Special Edition models. We couldn’t begin to list them all here. Look for details in Sweet Notes and on our Web site as they become available.

Finally, the guitars on display at the Brian Moore booth were nothing less than spectacular. Between the sophisticated electronics (including models with 13-pin connectors ready to plug and play in Roland’s guitar synths) and the stunning craftsmanship which includes the company’s trademark inlay work and figured maple tops, it’s no surprise that the company’s market share has been growing so fast. For 2003, the company introduced the exciting new i1000 Series featuring the new, more affordable iGuitar. With a contoured body, figured maple top, RMC Piezo bridge and classic iM Alnico humbuckers, this is unquestionably a lot of guitar for the money.

“The Ball” from BLUE introduces the phantom powered dynamic microphone

Baltic Latvian Universal Electronics — otherwise known as BLUE — the company that designs and manufactures the highly acclaimed BLUE Microphones, has broken the rules again, producing yet another groundbreaking product. It’s called The Ball ($279 list), and it’s the world’s first phantom-powered dynamic cardioid microphone . . . Huh? Wait! We can understand why The Ball is so-named for its unique shape and inimitable Blue styling, but a phantom-powered dynamic? Well yes . . . and no.

Conventional dynamic mics don’t require external DC power. They employ a relatively simple circuit and derive their output voltage through electromagnetic induction. But you already knew that, right? While this makes them rugged, reliable and easy to operate, they also present users with a unique set of problems which Blue engineers solved by incorporating a phantom-powered proprietary active balancing circuit in the Ball’s output stage. The result? An exceptionally smooth and open sound previously unheard of in a dynamic microphone.

The Ball is capable of handling extremely high sound pressure levels without distortion, making it an ideal choice for studio, stage, broadcast, film or any other applications where reliability, versatility and exceptional sound quality is required.

www.sweetwater.com/theball

SWEETWATER IS FACTORY AUTHORIZED! We fix your gear right and on time with no excuses!
The music industry has always been pretty lucky; historically, ups and downs in the economy haven’t really slowed the public’s desire for entertainment. In fact, it’s been just the opposite — a sluggish economy often means an entertainment boom, as people turn to the arts to take their minds off of their troubles.

In fact, just as we were going to press, we got the latest figures on sales of musical instruments in the U.S., and for 2001 (the latest complete figures available to Unity Marketing, which keeps track of this kind of information), the number was an astounding $3.2 billion — yes, billion! That figure puts the annual percent increase in sales at 13.2%, which is amazing in and of itself, but it does not even include sales of studio gear like multitracks, consoles, microphones and hard disk recorders.

Even knowing that our company had a terrific year, I was still surprised at the incredibly upbeat attitude at this year’s Winter NAMM Show in Anaheim which, incidentally, set a new record for total attendance. There was a definite positive charge to the atmosphere.

What’s more, it seemed that every manufacturer had some genuinely impressive product (or in some cases, several products) that were truly innovative or cutting edge. Where we might have expected some recycling of existing products and technologies, we were treated instead to a number of genuine innovations.

After four thrilling days of conference sessions, celebrity sightings (the Bootsy Collins/Buckethead entourage was a particular highlight), performances and exhibits showcasing all of the hottest hardware and software the industry has to offer, the show also played host to the largest concert event in its history: A star-studded tribute to Sir Elton John that raised hundreds of thousands of dollars for NAMM’s music education charities.

So what does all this mean to you? Lots of powerful hardware and sophisticated software with impressive new features and in many cases, lots more bang for your hard-earned buck. Sweetwater once again experienced another great year in 2002 and considering what I saw at NAMM, 2003 will be even bigger and perhaps one of the most exciting since the initial debut of digital recording technology back in the early 1990s.

With all this great gear headed your way, we’ve implemented some design changes to the Sweet Notes format to help keep you up-to-date on each exciting new release. We think you’ll like the new streamlined look. We’ll also be making changes to our Web site throughout the upcoming year to reflect the rapidly evolving universe that is music and recording technology in the 21st Century.

Hang on, this is going to be fun!

**Play Sweetwater Trivia**

Back in 1968, 20th Century Fox released “Planet of the Apes” which was based on the novel by Pierre Boulle (shown at left in a somewhat lurid poster for the film’s release in Italy). This was actually a fairly important movie for its time, as it helped bring science fiction into the mainstream of pop culture, making it much easier in years to come for films like “The Matrix” and the “Star Wars” series to find a larger audience.

Okay, so what’s the connection to Sweetwater? In the film, where did Charlton Heston’s character claim to be from? Ten bonus points if you remember — it was Fort Wayne, Indiana!

**Q&A**

**Q:** In Logic, do I have to bounce in real time?

**A:** You must bounce in real time in versions of Logic 5.x and below. In the newest releases — Logic 6.x and above — there is a new function called Offline Bouncing which enables you bounce faster, therefore decreasing the amount of overloads on the CPU.

**Q:** When I try to change the sequence tempo in Digital Performer, the soundtracks in audio tracks I recorded keep their bar/beat location instead of their SMPTE time location (minutes/seconds/frames). How can I change this?

**A:** Use the “Track Locking Toggle”. In the Tracks window, look for the LOCK column. When a track is locked, all the data stays anchored to its current SMPTE frame location even if you change the tempo. You need to “unlock” it to make your changes.

**Q:** How do I reduce latency in my Steinberg Nuendo or Cubase SX or SL in Windows? It is extremely noticeable.

**A:** One thing you should make sure of is that you are using your pro audio card’s ASIO drivers. Neither Nuendo nor Cubase SX/SL default to the best driver when you first install them. Go to: “Devices – Device Setup – VST Multitrack” and make sure that you have the correct ASIO driver for your specific audio card, not the ASIO Multimedia Driver. Simply select the ASIO for your audio card and select “Switch” when asked, and you will be able to use your audio card with much lowered latency (provided your card has ASIO drivers, of course).

**TECH TIPS:**

- **WARNING:** Do not change AMS (Apple MIDI System) during Pro Tools 6.0 playback!

  You should never change the AMS configuration while a Pro Tools session is playing or you may encounter problems. If you do need to edit AMS, stop playback in Pro Tools first.

- **Pro Tools 6.0 TDM and LE Systems:** When transferring sessions between LE and TDM systems, Plug-In Settings should be copied to the session’s Plug-In Settings folder. This helps restore the proper plug-in preset names.

  - **Transferring Sessions** with plug-ins from older versions of Pro Tools to Pro Tools 6.0: When importing data, any associated Plug-In Settings files are not imported. You will need to copy the Plug-In Settings files manually (in the Finder).
Yamaha Tyros Digital Workstation: A new level of realism

One of the real surprise hits at the Winter NAMM Show was an amazing instrument from Yamaha. Using a brand new technology called Mega Voice, the company introduced us to Tyros ($3495 list), which combines the sound quality, stylistic detail and ease of use of a Clavinova digital piano, incredible editing control over sounds and sequences like the Motif synth, built-in mixer technology and DSP effects from the company’s pro audio products, and the ability to carry it under one arm — for all its power, the Tyros weighs in at a mere 27 pounds.

Most digital keyboards create their sound from samples: An instrument's output is recorded at different pitches and perhaps a few different velocity levels, and that’s about it. That leaves out a lot of the subtle nuances that make an instrument sound unique. For example, on a guitar, traditional sampling would miss the string and pick noise. Mega Voice provides open and mute string sounds, dead notes, slide and hammering effects, harmonics and a wide range of strum and body noises, — all the missing elements that make us believe we’re hearing a real guitar!

**Tyros looks as good as it sounds!**

The most visually compelling thing you notice right away is the screen. It's color — incredibly bold and clear — and the angle is adjustable. This color control center is surrounded by the various buttons and switches that you use to operate the keyboard. Conveniently, many of the panel buttons have lights, making the keyboard easy to negotiate even in less-than-optimium lighting situations.

Still, any keyboard's most important feature is its sound. More Wave ROM data ultimately translates to better sound. Though at first glance, one might think of the Tyros as a “semi-pro” keyboard due to the availability of integrated speakers, there is nothing semi-pro about the way the Tyros sounds — with 96MB of sample ROM featuring some of the finest voices you have ever heard, this baby could go toe-to-toe with the finest voices you have ever heard. Yamaha has taken accompaniment to a whole new level of realism. The 300 musical Styles found in this digital workstation are best described as a real, live backup band, conversant in virtually any musical style, right at your fingertips.

Make your own kind of music

Yamaha has taken accompaniment to a whole new level of realism. The 300 musical Styles found in this digital workstation are best described as a real, live backup band, conversant in virtually any musical style, right at your fingertips. Choose a category of music (Country for example), select a Style from the menu and play your favorite song. It's that easy.

Each Style has up to eight different musical parts that provide drums, bass, guitar, horns, strings and any other musical instrument that suits the genre of music you have selected. The Global Style Programmers take all of the work out of making realistic band tracks that you can use for live performance, studio work, song writing and MIDI file creation. With Tyros, just do what you do best: Sit back and play.

If we tried to describe every feature on this breakthrough instrument, we wouldn’t have room for any other articles. There’s a Vocal Harmony and Lyric Display, Score Display, a CueTime function that allows the Tyros to actually follow your vocals in real time, top-quality onboard effects, USB and MIDI connectivity, 128 Notes of Polyphony and a 16-Track Sequencer and Song Position Pointer.

The clincher? Several Sweetwater Sales Engineers (who are notoriously picky) have already ordered a Tyros! Don’t have a group of musicians that will drop everything at a moment’s notice to jam with you? With a Tyros, you’ll never miss them!

![www.sweetwater.com/tyros](www.sweetwater.com/tyros)

<table>
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<tr>
<th>Keyboard</th>
<th>61 Keys with Touch Response (initial touch/after touch)</th>
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<tr>
<td>Polyphony</td>
<td>128 notes maximum</td>
</tr>
<tr>
<td>Display</td>
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<tr>
<td>Voices</td>
<td>1149 Preset Voices + 36 Drumkits</td>
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Eventide Clockworks Legacy Plug-In Bundle recreates vintage effects

It's hard to believe, but it's been almost thirty years since Eventide unveiled the very first Harmonizer effects processors. Since the term “plug-in” first appeared, Pro Tools users have been waiting hungrily to add Eventide algorithms to their systems. Well, the wait is over. At Winter NAMM, Eventide proudly announced five new plug-ins, the **Clockworks Legacy** ($795 list) which have been painstakingly rendered by the engineers at Eventide to faithfully recreate — down to the smallest detail — the unique character of each of their original dedicated processors. Comprehensive automation and MIDI control have been added to take full advantage of the power and flexibility of current TDM Pro Tools systems like Pro Tools/Mix and Pro Tools/HD, Versions 5 and 6.

The goal was to provide users with faithful recreations of the original vintage processors and precisely represent 1970s state-of-the-art analog gear. These are commonly used for micropitch shifting in combination with delay, great for thickening voice or instruments. For those who are wondering, Eventide Clockworks was the original name of the company when it was located on West 54th Street in New York City.

The **Omnipressor** (1971-1984) is a compressor with an attitude. Widely used on hit records throughout the 1970s and into the ’80s, one of the first customers to sing its praises was Brian May, lead guitarist of Queen. The **Instant Phaser** (1971-1977) is a single function analog processor featuring a sweeping filter bank. Led Zeppelin loved it so much, they offered to endorse the product! The rest is rock and roll history. The **H910** (1975-1984), the very first Harmonizer effects processor, was adopted by industry luminaries like Tony Visconti who used it to create the unique snare sound on many of David Bowie’s hit albums.

The **Instant Flanger** (1976-1984) was developed to recreate true “flanging.” We take the effect for granted but back in the 70s, it was discovered by accident: The combination of two open reel tape recorders with identical material, made the sound of a plane taking off when the tape “flange” was touched. The **H949** (1977-1984) featured additional delays and was the first “deglitched” pitch changer. The product was widely utilized by many top engineers and performers, including a young Jimmy Page, who adopted an H949, the only piece of digital gear to grace his rig.

Don’t wait! Add the Clockworks Legacy bundle to your Pro Tools setup now.

[www.sweetwater.com/clockworks](www.sweetwater.com/clockworks)

At long last, Eventide processing for the desktop studio!
Mac OSX adds integral audio and MIDI support plus blazing speed

The new operating system from Apple is extraordinary in the way it handles all audio and MIDI information. OS X CoreMIDI controls the access to MIDI interfaces and is an integrated part of the operating system. This system-level integration contributes to reduced latency, and a dramatic increase in system stability. Users can even access various MIDI interfaces from multiple MIDI applications at the same time! Meanwhile Core Audio manages the access to all hardware. In contrast to previous standards, Core Audio is more flexible, even allowing access to multiple audio hardware devices from several audio applications simultaneously. Running Logic and iTunes without restarting? No problem with Core Audio!

The OS X “Audio Units” (AU) component is a brand new Native plug-in architecture for audio effects and software instruments. AU plug-ins offer enhanced flexibility in contrast to previous standards: Configuration parameters can be dynamically changed during operation, realtime parameters are scaled better, and plain text support is also superior. Audio Units also allows more advanced user-interface design. In contrast to previous formats, the AU standard is clearly documented, so manufacturers of both plug-ins and host applications are finding development much easier.

As native applications adopt the Audio Units plug in architecture, future development time will be dramatically shortened, and it’s conceivable that a file created in one program can be opened in another, effects intact and all, resulting in an unprecedented level of true application cross-compatibility.

EMAGIC

With all the emphasis being channeled into OS X audio applications, it still came as something of a surprise when Apple announced it had acquired Emagic, one of the leading providers of pro software solutions for computer-based music production. Emagic’s most popular product, Logic, was already being actively used by over 200,000 musicians around the world, and in 2002, was the first manufacturer to deliver a complete music production system for OS X.

Now Emagic has unveiled version 6 of the Logic Series. This update provides a new level of processor efficiency and extensive enhancements to the Arrange window that offers more editing and mixing power than ever before. Logic 6 also debuts two new setup and file management solutions — the Setup Assistant and the Project Manager. It also ships with no less than 50 effects plug-ins.

DIGIDESIGN

It was announced at Winter NAMM that Pro Tools 6.0 for OS X was imminent (it has since shipped). Featured during Steve Jobs’ keynote address at MacWorld San Francisco in January, Pro Tools 6.0 is the next evolutionary step for Pro Tools TDM (Pro ToolsHD, Pro Tools24 MIX, Pro Tools24) and LE systems (Mbox, Digi 001 and Audiomedia III/ToolBox). Among the new features is solid integration between the Pro Tools environment and Power Mac G4s. Pro Tools sports a streamlined new look for the Mix, Edit, and Transport windows, increased performance with dual-processor G4 systems and new multi-user login functionality that enables individual users to save custom display, operation, editing, automation, processing, compatibility, and MIDI preferences.

MOTU

Digital Performer version 4 is now shipping. The message about DP for Mac OS X was clear: Universal compatibility. Digital Performer fully supports Mac OS X’s CoreMIDI and CoreAudio technology, which supply DP with standard audio and MIDI management features, along with enhanced plug-and-play compatibility with third-party audio and MIDI hardware, software, plug-ins, virtual instruments and other products. DP users will enjoy direct, 100% compatibility with a rapidly growing universe of AU plug-ins and virtual instruments, without the need for plug-in “wrappers” or other complications.

BIAS, INC.

The company announced that its entire line of pro audio production software is fully compliant with Mac OS X version 10.2.3. The company is currently shipping Peak 4, Deck 3.5.1, SoundSoap 1.0, Vbox 1.2, and SuperFreq 1.1, all of which are fully compliant with the latest update to OS X which adds many improvements.

ABLETON

The innovative Berlin-based music software company recently announced that a free OS X update of its LIVE audio sequencer was available. One of the first pieces of music software to come to the OS X party, LIVE is unique in the way it handles loops and samples. Sound files are time-stretched and compressed in real time while being read from your hard disk.

TC ELECTRONICS

The company’s award-winning Spark XL 2.7 represents the state-of-the-art, all-inclusive version of their latest OSX-compliant technology. This product is way more than a two-track editor; a complete mastering and editing environment provides a stack of powerful tools to get the job done. Spark XL includes the FX Machine and all its many powerful plug-ins.

NO MORE BABY STEPS

The Mac OS X is a bold move forward into the 21st Century. While at first it might appear somewhat daunting to those who literally grew up with older Mac OS versions, it’s clear that this system will actually allow users to make music with less headaches, less compatibility issues and blazing new speed.

Feel confused? Want to know more? Our Sales Engineers are prepared to answer any question you might have about audio applications in OS X. After all, we have always been the experts on Mac-based audio, so call us today. So remember, no question is too big (or too small) — it’s why we’re here!

Mac OS X Audio Overview

• OS X delivers system level support for functionality previously delivered by a long list of 3rd party MIDI and audio protocols.
• Core Audio provides Power Mac owners comprehensive native multi-channel audio capabilities with integral plug-in support.
• Audio Units and Audio Unit Graph (AUGraph) APIs provide a plug-in architecture for both DSP (audio in/audio out) and virtual instruments (MIDI in/audio out), their configuration and real-time control.
• MIDI services allow for multi-port MIDI capability including MIDI stream management and MIDI configuration management.
• The Audio Toolbox includes sequencing services allowing developers to deliver real-time MIDI editing including cut, copy, paste, loop, repeat loop, etc.
• OS X CoreOS driver model allows Apple to provide general class drivers to support any MIDI device that supports industry standards.
DigiTech RPX400: Effects for the computer age

Back when the very first effects boxes appeared, things were simple: This box did this thing and this other little box did that thing and everyone was content (except for all of the hissing and buzzing that came from daisy-chaining all those effects boxes together).

Eventually all the dinosaurs died off, humans began to walk upright and before you knew it, we were in the 21st Century, which is a pretty cool place to be for musicians. These days, it’s common to turn to one or two effects devices to cover all the bases that required a dozen or more boxes only a few years ago.

So, while the idea of an integrated effects device isn’t really all that new, the DigiTech RPX400 ($399 list) still manages to add a few interesting twists and turns to the picture, making it a device worthy of note for a wide range of musicians. Designed for both live performance and for computer recording applications, the RPX400 provides a wide spectrum of awesome modeling effects.

In addition, the unit includes a USB interface which simultaneously streams four processed and unprocessed 24-bit guitar, mic and line level signals to the computer for recording, while receiving a stereo mix back, and also allows primary recording operations to be controlled directly by the processor’s foot pedals. This makes the RPX400 the first effects processor designed to provide completely seamless integration to the computer for recording applications.

Sporting an awesome array of superlative amp, cabinet and pickup modeling effects, along with distortion, delay, reverb and modulation effects, the RPX400 offers 40 new Artist Presets designed by some of today’s top performing/recording guitarists. Separate speaker-compensated stereo XLR and 1/4 inch outputs allows all performing guitarists to send stereo effects incorporating amp-cabinet modeling compensated for a full-range PA system, while sending the same effects without compensation to our guitar amps.

DigiTech teamed up with Cakewalk to include computer recording software for PC users with features to automate the entire process using the RPX400 as the controller (sorry, no Mac capabilities yet). The software allows recording, editing and sweetening of tracks on a computer and final output of recorded projects to CD. An onboard rhythm programmer with 30 patterns and adjustable tempo, plus a digital guitar tuner round out the impressive feature set.

This is digital recording designed by guitarists for guitarists. Call your Sales Engineer today to learn more! www.sweetwater.com/rpx400

Audix Micro Series: Small condensers with a big future

Consisting of two models, the M1245 and M1290, the Audix Micro Series ($379 to $399 depending on model and capsule) are the smallest condenser microphones in the world with an integrated preamp and detachable cable.

The M1245 is less than 2 inches long and weighs a mere .6 oz while the M1290 is just 3.5 inches in length and weighs in at a swell one ounce. Characterized with precision machined brass body and black E-coat finish, every model is attractively laser etched with its model and serial number. Individual models include a variety of polar patterns to choose from including cardioid, hypercardioid, omni-directional and shotgun capsules.

Other miniature mics require external power supplies that are bulky, cumbersome and require extra cable, stand adapter, and foam windscreen. Optional accessories include 25’ and 50’ cables, a rubber insulated shock mount clip, and a special clip for positioning the mics for overhead hanging applications.

www.sweetwater.com/m1245

Mackie announces strategic partnership with Dolby Labs

At Winter NAMM, Mackie teamed up with Dolby Laboratories to present the ultimate DVD-Audio demonstration to attendees. The presentation featured multiple genres of music in Dolby Digital and DVD-Audio Advanced Resolution sound running through various configurations of Mackie’s THX pro-certified family of studio reference monitors and studio subwoofers.

The presentation was intended to dramatically demonstrate high-resolution 24-bit/96kHz DVD-Audio, as well as showcasing the versatility and performance characteristics of Mackie’s growing family of award-winning reference monitors and subwoofers.

“Mackie’s reference monitors have earned a reputation for superior dynamic range as well as transparent and accurate reproduction of audio in pro recording and post-production studios,” stated John Kellog, Director of Multichannel Music Production at Dolby Laboratories. “We believe that the Mackie HR series speakers are ideal for effectively demonstrating the dynamic impact of DVD-Audio advance resolution sound the way it’s supposed to be heard.”

For additional information concerning high resolution audio, check out Page 9 of this issue.

In other news, a major software upgrade for the Mackie Digital 8-Bus (d8b) recording console is now available. Version 5.0 includes a completely redesigned graphical user interface (GUI) for improved navigation, as well as a HUI (Human User Interface) emulation layer so you can use your d8b as a controller for Pro Tools or other HUI-supported DAWs. Other new features include improved FAT Channel functionality with updated dynamics and EQ algorithms. Sophisticated surround sound level controls and on-surface monitor control are now standard, and a new plug-in chaining capability allows up to four plug-ins per send. Call us for full details.

www.sweetwater.com/d8b

A major upgrade for the Mackie d8b is now available.

Great Jobs! Great People! Great Pay! Careers available on the Sweetwater Team! (800) 222-4700
New “delivery systems” make high resolution audio a reality

Is it just me or has anyone else been surprised by the dichotomy that is the world of music reproduction in the 21st Century? On the one hand, we now have the capability of producing audio that is exponentially more detailed than the original 16-bit/44.1kHz compact disc. Then, on the other hand, there is the proliferation of the MP3 recording standard, which is clearly a step backwards in terms of audio quality, but allows for massive amounts of audio storage on compact MP3 players like the best-selling Apple iPod.

Looking back . . .

Some of you probably aren’t even old enough to remember the days when all our music was delivered on those flat, black 12-inch polyvinyl chloride platters that we called records, and later LPs. One interesting sidenote: Back in the ’70s, manufacturers tried to market what they called “quadraphonic sound.” Isn’t it funny that “quad” ended up being a disaster (and somewhat of a joke in historic terms) though today, surround sound is cutting edge?

This is a classic case of an idea whose time had clearly not yet come. The hardware was not sophisticated enough to deliver a true surround experience. Of course, manufacturers didn’t help things by releasing LPs in no less than three different “quad” formats. The public ended up being confused and ultimately unimpressed.

Fast forward to the ’80s: Once the public embraced the CD (or at least when the big labels decided to stop wasting time pressing records), you may remember walking into your favorite record store and suddenly seeing LPs relegated to those dusty back corner bins. It was quite a joyous day for me — finally, no more clicks and pops!

Looking ahead . . .

I don’t expect CDs to become extinct any time soon, particularly as almost everyone has an extensive collection of discs, not to mention a CD burner in their studio setup. Fortunately, our existing CDs will always be compatible with whatever high res audio format becomes our “new” standard — or at least that’s the plan as of today, and it makes a lot of sense.

A few years ago, I expressed the opinion that few of us needed high resolution audio equipment. But today, as the music industry has finally decided to actually produce players that will take advantage of 24-bit audio, I think it is indeed the right time for all of us to make the move, particularly since almost all of the companies involved only a theoretical standard. For comparison, compact discs are limited to a dynamic range of just 96dB — quite a difference.

Sadly, very few “average” listeners will notice the improvement both formats offer in terms of audio quality. It will be hard line audiophiles and the major labels that will end up making the choice for us: DVD-Audio or SACD. In a perfect world, both formats will be accessible in one player, as they are now in the high end Marantz DV8300 and Pioneer DV-45A.

Into the future

Those of us who struggle on a daily basis to produce music that pushes the boundaries of current technologies will be the winners in terms of the pristine audio we have always dreamed of. On the flip side, we have to consider how much of the gear in our current studios will make the grade.

Fortunately, most manufacturers have rolled out plenty of products over the last few years that will help us make the quantum leap a bit less painful. Almost all our outboard gear is already at the 24-bit level or higher. And just think, there were microphones built as far back as the 1950s and ’60s that could deliver better audio than any standard CDs can reproduce. meaning most of us won’t have to consider the purchase of new, expensive mics and outboard gear.

Looking back . . .

Clapton’s “Reptile” sounded great on CD, but the 24-bit DVD-Audio disc will blow you away!

with producing recording systems are aiming high today. And yet prices have never been lower!

We finally have the “delivery systems” today to put these high resolution recordings into the homes of the average consumer: DVD-Audio and Super Audio CD (SACD) were designed to not only play future high res recordings, but wisely built to be “backwards compatible” with our existing collection of compact discs.

The new formats

DVD-Audio discs are beginning to show up at retailers, though they won’t play at full resolution on most existing DVD video players (however DTS and Dolby Digital versions of the music are almost always included, making them playable on any DVD machine and they do sound terrific). Still, the fact is that more and more DVD players are being built for 24-bit audio at sampling rates of up to 192kHz in stereo. You can even pick up such players (like the Toshiba SD-4800) for a street price of less than $200.

The Super Audio CD format, jointly developed by Sony and Philips, looks just like a normal CD, but thanks to revolutionary technology called Direct Stream Digital (DSD) encoding, the frequency response and dynamic range delivered by this process is almost five times greater than that offered by normal CDs (see figure above).

With either format, we will have finally achieved the full dynamic range of 144dB, which once was considered...
TC WORKS POWERCORE
High octane DSP for native systems

From the folks at TC Works comes an absolutely stunning array of powerful DSP muscle for use with virtually any Native recording system – PowerCore. PowerCore ($1299 list) gives the processing power of your computer-based recording system a massive boost, letting you run a slew of top-quality plug-ins on your system with practically no limitations! If you own Digital Performer, Logic Audio, Nuendo or any other VST 2.0-compatible application on Mac or PC, PowerCore may just be single most important upgrade you can make this year!

Imagine being able to process all your plug-ins without worrying about compromising your CPU’s ability to handle the rest of the demands of professional audio production. That’s exactly what PowerCore gives you, and then some, with five discrete processors: A power PC and four Motorola 56K DSPs. The processing onboard is a whopping 400 MIPS (Million Instructions Per Second) with processing speed at an amazing 2.8GHz. While the raw numbers are impressive (the 24-bit/96kHz PowerCore is capable of running up to eight MegaReverbs at once, for example), the real story is the software tools that take advantage of that power. We’re talking about top notch algorithms from the folks that brought you groundbreaking products like the M5000, System 6000, and Finalizer, all of which can be found in multi-million dollar facilities the world over. A rundown of the included plug-ins reads like the wish list of most of the engineers I know (present company included):

- MegaReverb (One of the most realistic space simulators available)
- ClassicVerb (For those who prefer a more traditional, lush “reverb”)
- 24/7-C Limiting Amplifier (A faithful recreation of a vintage limiting amplifier)
- Chorus/Delay (The trademark TC Electronic chorus sound made famous by the 1210 Spatial Expander)
- EQ Sat (The best of both worlds, delivering precision 5-Band Mastering EQ and saturation emulation for analog character)
- VoiceStrip (Channel-strip with EQ, dynamics, de-essing and gate)
- Vintage CL (High quality compression and limiting in the “dbx-style”)
- PowerCore EQ (A virtual analog synth)
- MasterX3 (A virtual incarnation of the multiband dynamics section of the best-selling Finalizer, probably the most used section of the original Mastering Processor)

As if that weren’t enough, we’ve managed to put together a special Sweetwater Exclusive bundle called PowerCore Plus ($1299 list) which includes everything listed above, plus the Waldorf D-Coder which has everything you need to create sophisticated voicing effects! With up to 100 bands of voicing and selectable bandwidth, D-coder can create everything from harsh sci-fi robotic effects to ultra-smooth and intelligible vocal effects. There’s also a dual oscillator polyphonic synthesizer, featuring that classic Waldorf sound!

Don’t wait another minute. Give your CPU a break and install a PowerCore!

www.sweetwater.com/powercoreplus

Introducing MOTU MachFive: The universal sampler plug-in!

What if we told you that Mac or PC owners can now access virtually any sample library for any instrument ever invented? Impossible? Well, Mark of the Unicorn (MOTU) just announced MachFive ($395 list), a universal sampler plug-in for Mac and Windows with support for all major plug-in formats (MAS, VST, RTAS, HTDM, Audio Units and DXi) plus sample formats including Akai, Kurzweil, Roland, E-mu, Giga, SampleCell, EXS24, Halion, Creamware, WAV, AIFF, SDII, REX and more. MachFive includes support for 24-bit samples with rates up to 192kHz and the ability to import and playback multichannel samples in 5.1 surround.

Though the first release of MachFive plays samples from available RAM, the MOTU people tell us that a free upgrade which will stream samples directly from your hard disk will be available in a few months.

MachFive operates as a plug-in inside a host application such as Digital Performer, Pro Tools, Logic Audio, Cubase and virtually any major audio software. This allows users to employ MachFive as a flexible, state-of-the-art sound source directly within their projects and can save all MachFive settings with the project for instant recall.

MachFive includes UVI-Xtract, an import utility that allows users to audition and load programs and samples from every major sampler format — in most cases, discs that otherwise cannot be mounted on your computer desktop. We’ll do a “hands on” review very soon, but meanwhile, say goodbye to incompatible sound libraries, say hello to the future of sampling technology!

www.sweetwater.com/machfive

Samson Q-Drum Mic Series

As discussed here in Sweet Notes a few issues ago, miking up a drum kit properly requires suitable mics, and Samson has done all drummers and live sound mixers a huge favor by introducing the Q-Drum mic series. Not only has Samson developed mics tailored for percussive applications, but they’ve thoughtfully packaged those mics in kits of various sizes (complete with carrying cases and mounting hardware).

The Q Kick ($199.99 list) was designed specifically to handle the low frequencies and high sound pressure levels of today’s kick drums. The Q Snare ($199.99 list) is a mic specifically designed and voiced for high SPLs and durability with a smooth frequency response that accurately captures all of the snare’s dynamics and punchiness. The final mic in this collection is the Q Tom ($324.99 list for three matched mics). All the Q-drums feature rugged casings, special voicing, a cardioid pattern, gold-plated XLR, rim-mount mic clip and carrying case.

Here at Sweetwater we stock complete packages which start at $324.99 list and range all the way to a 7-Mic Kit ($799.99). With these exceptional mics, there’s no more worries about thin snares, wimpy toms and muddy kicks. Call now or check them out on our Web site.

www.sweetwater.com/qdrum
Cutting edge audio production tools from Cakewalk

Imagine for just a moment a complete Windows XP or 2000-based software synthesizer workstation that places absolutely no limits on your music. A flexible, expandable studio environment that engages your creativity, inspiring new musical ideas through its seamless integration of instruments and tools. It’s time to experience the amazingly affordable Project5 from Cakewalk, carrying a list price of just $429.

Project5 goes beyond stand-alone soft-synth “rack” software by providing a complete studio environment. It gives electronic musicians everything they need to experiment, create and perform music using integrated sequencers, software synths, samplers, audio and MIDI effects, and audio looping tools — all integrated in one workstation.

In addition, Project5 provides advanced capabilities for synth layering, real-time pattern genesis and triggering, and a seamless live-performance audio engine. What’s more, Project5 doesn’t put a limit on your creativity. It lets you customize and expand your studio with additional plug-ins, and it supports any Windows-compatible audio hardware.

Project5 instruments include: PSYN (pronounced “sine”) Virtual Analog Synthesizer; the easy-to-use DS-864 Digital Sampler (with support for Akai S5000 / 6000, Kurzweil, Sound Fonts 2, WAV, AIFF, and proprietary sample formats); Velocity Drum Sampler (LM4, WAV, AIF); nPulse Analog Modular Drum Synthesizer; and the Cyclone DXi Groove Sampler, plus a number of ultra sophisticated pattern and loop-based creation tools such as P-SEQ and Synchron32.

But Project 5 isn’t the only software from Cakewalk. Considered by many as the most robust and all-inclusive audio and MIDI production software available to-day on the Windows platform, Sonar 2.2 ($479 list) has continued to expand its unique feature set over the last several months with the following professional additions:
- Support for OMFI and Broadcast Wave files provides cross-platform compatibility with OMFI host applications such as Pro Tools, Avid and Logic systems.
- Support for ASIO-compatible audio hardware, in addition to existing support for WDM- and MME-compatible devices. Sonar’s support also includes Digidesign 001, 002, Mbox and Pro ToolsHD hardware.
- Dedicated support for the Mackie Control, Radikal SAC-2.2, CM Labs MotorMix and Tascam US-428, plus a Global Control panel with “learn” mode to quickly integrate any MIDI-compatible control surface.
- ReWire 2.0 support integrates with Project5, Reason, ReBirth and other compatible synths.
- Multi-port drum editing with grid and pattern based enhancements and custom mapping.
- Enhanced soft synth integration: Synth Rack, multi-output synths, DXi 2.0 support, and more plus the ability to export ACID-format WAV files for use in other projects and applications.

Naturally, that’s just a partial list. So which application is best for your specific needs? Here’s the easy part: One toll-free phone call to the experts at Sweetwater will put you and your Windows-equipped PC on the right track — and that’s guaranteed!

www.sweetwater.com/project5

Apple Flat Panel Displays: A lot more image for a lot less money

They seem to be everywhere these days. You can’t watch a TV show or go to the movies without seeing those amazingly thin LCD monitors in the background — or even featured in critical scenes. That’s because this technology is changing the way we access information on our personal computers. And besides looking cool, they only put out about as much heat as a 60-watt lightbulb, far less than comparably-sized CRT monitors. They’re also much easier on your eyes and use about a third of the power of traditional CRTs!

Apple’s brilliant flat panel displays are now available at breakthrough prices, with list prices dropping by as much as $1000, so they won’t break the bank — or your back, for that matter! All of Apple’s new flat panel monitors are amazingly light. What’s more, they take up a fraction of the space on your desktop.

All of the displays in the Apple family offer crisp pixels, the best viewing angle technology and a broad color gamut so you can judge your work accurately.

The latest addition to the lineup is the 20-inch Apple Cinema Display, with a resolution of 1680 by 1050 pixels, so you have plenty of room to edit your latest digital video feature. This absolutely gorgeous new display delivers the same wide aspect ratio and superb picture quality as the top-of-the-line 23-inch model at an incredible price — just $1299 list!

But these amazingly low prices don’t come at the cost of performance. When you sit down at an Apple display, you see the whole picture immediately, from virtually any angle, because Apple displays use the best viewing angle technology on the market today. A built-in two-port USB hub lets you plug in peripherals like your printer, scanner, external hard disk or digital camera and the Apple Display Connector (ADC) makes set-up a snap: A single cable carries all digital video, USB and power signals from your Mac G4 to the display.

Graphics and digital video pros will want to step up to the awesome 23-inch Apple Cinema HD Display, now only $1999. And for those on tight budgets, the $699 list 17-inch Apple Studio Display supports a resolution equivalent to the work space you got with your old 21-inch monitors.
BOSS ME-50 EFFECTS
No nonsense, just killer tone

From the leader in effects pedal technology comes the Boss ME-50 ($345 list), a multi-effects guitar processor built with the ruggedness and simplicity of a stompbox. Designed to work in conjunction with your amplifier, the 24-bit ME-50 focuses on killer multi-effects like COSM-modeled overdrive and distortion. And dialing in your tone is easy, with dedicated knobs for each effect section, three footswitches and an expression pedal — and no counter-intuitive multi-level menus to get in the way.

When you want to kick in an effect, just step on one of the foot-switches. Just think of it as a pedalboard full of stompboxes, but without all the clutter. Besides the crunchiest, tastiest overdrive (derived from the popular OD-20), you also get cool synth type sounds along with plenty of other effects like compression, analog delay, flanger, phaser, tremolo, Harmonist, Uni-V and a wicked new rotary speaker effect.

The ME-50 uses a simple Pedal Mode switch and knob to select whether you want to use the pedal for volume or expression, where you can select one of six preset assignments via the dedicated knob: Wah, resonance, voice, ring mod and octave up or down. There are no annoying multiple menus to set it all up. Once enabled, the three footswitches become Patch selectors for switching between any three programs within the ten memory banks.

Check out the ME-50 today — it’s the perfect blend of classic and cutting edge technology, covering just about every sonic base imaginable!

www.sweetwater.com/me50

ANTARES TUBE PLUG-IN
Analog warmth for digital tracks

After introducing a number of terrific plug-ins (including the “I can’t live without it” Mic Modeler), Antares has released the aptly-named Tube ($129 list) available now for RTAS and VST (Mac and PC), MAS, and DirectX. As you might guess from its name, Tube adds analog warmth to what may otherwise be rather cold and sterile digital tracks. While there are several products that claim to add “analog character,” Tube gets a thumbs up for ease of use, sonic quality and DSP efficiency — even a modest native system will support dozens of tracks worthy of processing (about 40 tracks on a Mac G4 400MHz).

You get two types of tube processing. Heavenly Blue Tube adds the warmth of a classic tube preamp to vocals or any acoustic instrument. The Drive control lets you select the degree of dynamic saturation, or you can engage OmniTube to add subtle body to the entire signal. Not warm enough for you? Give in to the temptation to launch the fiery Orange Tube and ignite your tracks with the deep, buttery distortion of an overdriven tube amplifier. No matter how you use it, you’ll agree that Tube is another winner from a company that just keeps making great products!

www.sweetwater.com/tubenative

Winter NAMM 2003: It’s the music industry’s biggest bash

With well over 1,600 exhibitors showing off their hottest new releases and more than 67,000 gear hungry audio professionals wearing their shoes thin trying to see everything, Winter NAMM 2003 proved once again that Anaheim in January is unquestionably the place to be. In fact, this year’s show broke all previous records for attendance!

Okay, so what was new and exciting this year? What new piece of music technology captured the collective imagination of all the audio professionals and musicians in attendance? As always, picking just one piece of gear that ruled above all others at NAMM is practically impossible, but a few trends emerged that we know many of you will find interesting. We heard quite a few people calling this “the Year of the Keyboard.” Considering the sheer number of models from all the major players, it would be hard to argue the point.

From mammoth, feature-packed Super Synths to digital pianos brimming with a wealth of incredible sounds, the many, many keyboards on display boasted more power and more capabilities — and all for a lot less money — than ever before.

Examples? The Roland V-Synth (our cover story this issue), VK-88 and Fantom-8; the sleek and sophisticated Kurzweil 2661; the “retro” Vintage Keys from E-Mu; the Yamaha Tyros (see page 6) and the Alesis Ion, all or any of which we would love to have in our studio.

We also saw a lot of manufacturers ramping up their products to take advantage of Apple’s OS X for the Macintosh, but computer musicians aren’t the only ones with reasons to rejoice after the show. Case in point: Everywhere we looked, there seemed to be guitars. From classic models like the Strat and the Les Paul to amazing new innovations like the Variax from Line 6 (see page 15). And you certainly couldn’t ignore the fact that high resolution audio and surround sound have solidly moved into the mainstream recording environment. In fact, it would have been hard to find many manufacturers offering hardware or software that was limited to the “old” 16-bit / 44.1kHz standard.

Winter NAMM 2003 definitely had something for everybody. This issue of Sweet Notes covers just a few of the hot ticket items we saw at the show. If you missed our full NAMM report, you can access it on our Web site at the URL below. Naturally, as products move beyond the prototype or vaporware stage, they’ll be covered here in these pages in greater detail.

www.sweetwater.com/publications/reports/

“Great sales staff. Helpful and knowledgeable. Great response to calls and questions.” — Bill Foraker

NEED IT TOMORROW? We can ship FedEx for next day delivery! (800) 222-4700
Creating a hit vocal using TC-Helicon’s VoiceOne module

by Fred Speckeen, CEO, TC-Helicon Vocal Technologies

Some things never change. Today, vocals remain the most challenging production element of a great song, and the quest for perfection grows, while schedules and budgets shrink! Compared to developments in recording, synthesis and effects, there’s been relatively little innovation in the vocal channel…that is, until now!

TC Electronic and IVL Technologies created TC-Helicon Vocal Technologies in 2000. Our flagship studio voice product, VoiceOne, introduced a number of significant and revolutionary advances in voice processing. As one producer put it: “When it comes to making hit vocals, VoiceOne is like Photoshop for the voice. It makes every vocal track better.”

In your studio, you may work with a wide range of singers of differing abilities, and find yourself working feverishly to cut, paste, edit and alter bits and pieces from countless tracks. VoiceOne’s pitch and Voice Modeling technologies can make this process faster and less painful.

The rough track

Once your multiple vocal takes have been recorded, you’ll want to construct a single lead vocal track — the “rough comp” as it’s known. VoiceOne can fix a lot of problems, even in a poor rough comp. Starting with correcting and repitching the vocal.

Subtle Vocal Pitch Correction

VoiceOne is a superior pitch-corrector and repitching tool, and it can do both simultaneously while sounding incredibly natural thanks to its voice-trained pitch detection and shifting technology. For light pitch correction of an average vocal just select a key and scale to fit the song. Run your rough comp through a preset such as “Smooth Major.” VoiceOne displays both input pitch and pitch correction amount being applied in the front panel display.

Extreme Correction and Re-Pitching

VoiceOne can also help with a difficult voice that has severe pitch problems requiring drastic first-aid. For example, start with a PureShift preset such as “Shift Hybrid.” Here every bit of DSP power is devoted to pitch shifting using our new HybridShift algorithm. First, double click on the Shift button and adjust the Hybrid Shifter parameters for optimum tracking and color across a wide shift range. You may then double click the Correct button to specify the key and scale and try a first pass. You may also “ride” the vocal with via pitchbend wheel or the keyboard itself, simply taking over from the automated pitch correction whenever you want to manually change the melody.

At this point you’ve got the rough comp vocal singing the right notes. It’s time to go looking for rough edges.

Fixing Note Length with FlexTime

One big problem when comping vocals is those notes that the singer didn’t “sing through” or hold them long enough. With VoiceOne you can use the FlexTime algorithm to stretch held notes manually. Simply select a flextime preset such as #4, “Flextime Extreme.” Double click on the Inflection button and assign a CC controller to that feature. Now you can manually time-stretch short notes. Doing this in realtime is a lot like painting the vocal line. This same FlexTime technique works well to slow down vocal lines where the singer has rushed and/or run words together ahead of the beat.

Fixing Weak Notes with Resonance

Weak notes are another source of frustration for producers. These are the notes that the singer has not supported well, and often they are at the edge of their vocal range. This is a great space to apply the Resonance element of VoiceOne’s VoiceModeling. Choose a preset such as “VoiceModel Older” and double-click the Resonance button. Loop an offending phrase and play this through VoiceOne while you adjust the Resonance amount. Try a range of styles to find the color you are looking for. You are now able to dial out nasal notes and add substantial amounts of throat and chest resonance.

Using Vibrato to Add Strength and Authority to Weaker Voices

Ballads can be particularly challenging when a weak singer is required to hold long notes and few have natural, confident vibrato. For these situations use a combination of resonance and human-modeled vibrato such as that found in “Intimate R&B” to give the voice more apparent onset time and rate to fit the song’s overall style and tempo. VoiceOne’s Vibrato styles sound human because they are based on a physical model, not simply an LFO-driven pitch shifter.

Adding Character with Breath, Growl and Resonance

Some songs simply demand a character voice. Using combinations of VoiceModeling elements such as Breath, Growl and Resonance can help with this. Try starting with “Kimmy,” a kitchen sink-style preset that uses a combination of modeling techniques. Enable Breath, Growl and Resonance and, as before, tweak each your taste. These VoiceModeling elements can be used to craft the voice character either for specific notes and phrases or even for the entire track. Many of these elements work automatically, such as amplitude-controlled breath and growl. If you wish, you can manually control each element in real-time to stretch the vocal dynamically for dramatic effect. All parameters are controllable via CC in VoiceOne.

Vocal Doubling

Whisper tracks and doubled vocal tracks have become a standard production technique. Try ‘VoiceModelWhisper’ for a great whisper track in one pass, then try two more passes using “Tight Double” with one pass panned left, the other right. Mixing these together, you’ll have a vocal with extra presence and thickness in only minutes.

Harmonies

The combination of VoiceModeling and Flextime in conjunction with VoiceOne’s intelligent harmony algorithms lets you quickly dial up new backing singers whose characters can range from identical to completely different from the original vocal. For example, try “+3 VM” for a standard 3rd above harmony with character.

Creating great harmonies can include using a couple of scale-based harmonies like this first, then taking a third pass and manually playing a new harmony line from your keyboard to create some counterpoint (try “MIDI Pitcher”). These voices sound so good they can be soloed with confidence.

This is just a very brief overview of some of the ways VoiceOne can give producers extra creative and quality control when making vocal tracks, and it can be a real timesaver. Please check out our website, www.tc-helicon.com for articles, workshops and soundclips on how VoiceOne can be used in the creation of hit vocals!

“...the rest of the world!”

— Regis Branson

TALK TO AN EXPERT! Our Sales Engineers know their stuff and can help you select exactly the right gear!
In this issue, we’ll continue our company tour by visiting our Studio, the “original” Sweetwater. As some of you probably know, Chuck Surack (our founder and owner) was — and is — a studio rat. He started out doing mobile recordings out of his VW van and technically opened his first real facility back in 1979. Engineering and technology have always been passions of his. These loves have certainly steered the direction of this company and the products we carry on the retail side.

Today, Sweetwater Productions is in its 23rd year of continuous operation and is comprised of three rooms and a staff including engineers, administrative personnel and sales force. Our flagship room, Studio A, features a Euphonix digitally-controlled analog console, Lexicon reverb with LARC, a spacious live room with 18 foot ceilings, “tuneable” room baffles, iso booths, a Yamaha C7 conservatory grand piano with an onboard Disklavier MIDI system and a microphone locker stuffed with a full complement of “first call” studio and vintage microphones.

Our crew can take a basic, bare-bones concept and turn it into a gorgeous full-on, world class production!

All three rooms employ Digidesign ProTools TDM systems loaded with plug-ins. We also have MOTU’s DP3, a stack of Alesis M20s, an Otari MX80 2-inch, Mackie and TASCAM DA-88 recorders and even a TEAC 40-4! It would be pretty hard to find a format that we’re not prepared to work with!

Like the rest of the company, what really sets Sweetwater Productions apart is the people who work there. Let’s start at the top. Robin Jenney, our Studio Manager, has several RIAA Gold Record awards to his credit and has worked with national acts such as Natalie Cole, Donalds, Burger King, TNN, and Dick Clark Productions. Our crew can take a client’s basic, bare-bones concept and turn it into a gorgeous full-on, world class production.

So, we have a “real” studio at Sweetwater. You might be thinking to yourself, “Big deal, why should I care about this?” Actually, there are three BIG reasons:

Reason #1: Test Track

In Sweetwater Productions, we have a very real “test track,” where we can run new products through their paces. This is no faux studio set up in a corner of a showroom. This is the real deal, with specially designed rooms and big boy gear. When manufacturers drop off the latest, greatest whatever, it gets used in real world situations in a variety of applications. The feedback we get from our studio crew tells us how it will sound in a mix, not just out on the showroom floor.

Reason #2: Critical Listening

When our sales crew hauls a new effects processor, keyboard, etc. into Studio A, we can listen critically. For example, microphone shootouts and blind listening tests are a pretty regular activity around here. What better way for us to know which mic will sound best on drums, acoustic guitar, voice, etc. than for us to actually set them up, listen to them and compare results?

Reason #3: Training

As you know, ongoing product training for the sales team is practically a religion here. The studio provides us with an excellent facility that goes beyond the classroom and places us in the environment these products will actually “live in.” What better place to gain expertise on ProTools than by working on it in a complete studio system setup? Beyond this, our sales staff has access to the various rooms (when they aren’t booked, of course) so they can get hands-on experience or even work on their own projects. When you’re talking to one of our Sales Engineers, you’re talking to a person who is currently and actively involved with recording and music technology, not some guy reading product descriptions off a computer screen.

So, this is what makes Sweetwater Productions such a valuable resource, helping us help you every day in your quest for just the right piece of equipment.

Boss V-Wah: First-of-its-kind programmable wah

In the old days, guitarists were limited to just one wah pedal, connected by a tangle of cables to various distortion boxes and maybe a Uni-Vibe clone of some sort. Yeah, 1999 was a tough year . . . But now here we are in the 21st Century and guitarists everywhere can access a multitude of tone colors simply by adding a Boss V-Wah ($195 list) to their gig bag. This first-of-its-kind programmable wah gives you instant access to six wah sounds, an all-new “Double Resonance” mode, plus memory never found in a wah pedal before! Check out these features:

• World’s first COSM modeling wah, with six classic and modern wah models plus noise-free operation with advanced infrared pedal detection.
• Eight awesome modeled Overdrive/Distortion effects onboard.
• New Voice mode simulates “talking” vowel sounds and Double Resonance mode creates analog synth-type sounds.
• Classic “Uni-V” effect produces vintage rotary effects.
• Digital memory saves sounds for instant recall.

Naturally, you also get the security of the uncomprising Boss 5-year warranty. Order yours today or check our Web site: www.sweetwater.com/pw10

But Robin isn’t the only talent on board. He and the other three engineers have over seventy years of combined experience in writing, recording and production. Larry, Chet and Matt (hey, these guys are so cool, we don’t even use their last names!) have written and produced projects for many national and international clients like McDonalds, Burger King, TNN, and Dick Clark Productions. Our crew can take a client’s basic, bare-bones concept and turn it into a gorgeous full-on, world class production.

Tweaking a track in Studio B: Matt Morris adjusts a critical parameter in Pro Tools.

Midnight Star, Teddy Pendergrass and (as a basketball fan, I get a kick out of this one) Shaquille O’Neil. Robin’s attention to detail and great ears have made him a go-to guy whose reputation and relationships in the industry has brought acts from all over the country to our friendly little town. We also do all the recording for Fort Wayne’s own Philharmonic Orchestra.

Our huge warehouse is home to thousands of the hottest new products. Call us at (800) 222-4700
“What if your next guitar could be every guitar?” With that seductively worded marketing campaign, Line 6 formally rolled out its most ambitious product ever in late 2002: The Variax ($1399 list). One guitar that sounds like a whole guitar collection? While Line 6 has carved a solid niche in the music industry thanks to its amp and effects modeling, they had now set out to model not just one or two classic guitars, but 25 of them! Guitarists, generally well known for their suspicion of all things too technical (and I include myself in that statement), cocked a wary eye and said “Okay, show me!”

And the verdict is . . .

I won’t keep you in suspense. Line 6 not only “delivered the goods,” but was already ramping up production as demand reached critical mass at the Winter NAMM Show. Along with all the major industry publications, I was fortunate enough to receive a Variax of my own to evaluate.

First off, though the guitar ships in a gig bag rather than a hardshell case, it’s actually quite sturdy and is probably enough protection for most players (and indeed the guitar arrived from a trip all the way across the country almost in perfect tune!). I’d opt for a hardshell if I were doing a lot of gigging.

Once I slipped the Variax out of the gig bag, the first thing I noticed was just how good the glossy, tri-color sunburst looked over a contoured alder body. It’s also available in black and candy apple red. The solid bolt-on maple neck is left natural, but with a smooth satin finish that feels very nice, though I confess to a fondness for gloss finishes. The rosewood fingerboard is actually very good, with a tight grain and simple pearl dot markers, which fit well with the instrument’s utilitarian design. The neck is a nice compromise, not too fat or too thin, but substantial enough to fit comfortably in most players’ hands.

But enough about looks already

At this point, you want to know how it sounds. Simply put: Sensational! In direct head-to-head comparisons of the various modeled guitars with my personal collection of axes, the Variax is actually startling in its authenticity. The single coil models have all the “spank” and sparkle of the originals, while the humbucker models are smooth and warm. Personally, the Variax is worth the price of admission for its Coral Electric Sitar sound alone. There simply must have been some sorcery involved here; it’s that dead on!

The Variax tone test

Over a 48-hour period, I threw the book at this baby: I ran it into a Cyber-Twin, a Tech 21 Trademark 60, through a Line 6 POD module and directly into my console. I overdrove the amps, stuck several different distortion devices inline and even tossed two wah pedals into the mix. The Variax proved up to the challenge in every case, though the acoustic models, as you’d expect, fared best direct into my console. Negatives? Well, imagine someone handing you the keys to a Porsche Boxster. Would you worry about the color of the floormats? Enough said.

Although Line 6 isn’t particularly calling attention to it, right beside the recessed output jack on the guitar is a second “mystery” jack covered by a rubber plug. This is for future upgrades and enhancements. I love it when a company thinks ahead like this. Nobody wants to buy a second Variax with extra bells and whistles down the road. Hats off to Line 6 for their commitment to today’s Variax buyer!

The final analysis

While the coolness factor of having models of all the most popular guitars is absolutely over the top, the real test is whether this instrument can cut it on its own, without comparing it to “the originals.” The answer to that is unquestionably yes. At this price point and with such high quality sounds, the Variax is a bargain! Every time I think the people at Line 6 can’t possibly top their last act, they do!

So should you buy a Variax? Absolutely. Then again, I also think every guitarist should own a POD module: the PODxt is literally off the charts, adding terrific multi-effects to Line 6’s superb amp models. By the time this issue gets off to the printer, I’ll have time to post some MP3 recordings of the Variax in a number of different contexts to the Sweetwater Web site. If you haven’t heard one yet, prepare to be amazed.

www.sweetwater.com/variavax

The Variax guitar “collection” 25 Guitars in one!

1960 Fender Telecaster Custom
1968 Fender Telecaster
1959 Fender Stratocaster
1958 Gibson Les Paul Standard
1952 Gibson Les Paul “Goldtop”
1961 Gibson Les Paul Custom
1956 Gibson Les Paul Junior
1976 Gibson Firebird V
1955 Gibson Les Paul Special
1959 Gretsch 6120
1956 Gretsch Silver Jet
1968 Rickenbacker 360
1966 Rickenbacker 360-12
1961 Gibson ES-335
1967 Epiphone Casino
1957 Gibson ES-175
1953 Gibson Super 400
1959 Martin D-28
1970 Martin D-12-28 12-string
1967 Martin O-18
1966 Guild F212 12-string
1995 Gibson J-200
1935 Dobro Alumilite
Danelectro Model 3021
1928 National Style 2 “Tricone”

Two more terrific tone tools

I want to tell you about a couple of excellent, budget-minded effects pedals from Alesis, the GuitarFX ($139 list) and BassFX ($149 list, but check out your amazingly low Sweetwater price on either). I participated in the initial programming of these boxes, and from first hand experience, I can say each one is jammed full of amp and cabinet simulators (including overdrive), reverb, delay, tremolo, flanger, a totally cool reverse reverb and tons more. I’d own one just for the tremolo, flanger and reverse reverb effects alone, but there’s so much more! Stuff one (or even both) into your gig bag to replace practically an entire pedalboard full of outboard effects (and probably a tangle of cables)!

www.sweetwater.com/guitarfx
EMPLOYEE PROFILE

Name: Your name here
Position at Sweetwater: Sales Engineer
Start Date: When can you get here?

Education: An education in music or music technology is always a plus, but it’s not a requirement. What is a requirement is experience in some area of music, an enthusiasm for the gear, and the ability to communicate that enthusiasm to your clients. Do you want to turn your love of music and music technology into an exciting and rewarding career? If the answer is an unqualified “Yes!” then we want to talk to you.

Where are you from originally? Anywhere, Planet Earth

What was your occupation before coming to Sweetwater? It doesn’t matter, as long as your first passion is music.

Why did you first apply for a job at Sweetwater? Take your pick! For starters, you have the opportunity to make money — real money — in a field you love. Second, you have the opportunity for solid job security and growth potential in the sometimes uncertain audio industry. Third, there’s the excitement of working for the most respected and dynamic company in music retail. Fourth, the chance to work side-by-side with leaders in music technology... The list is practically endless.

Technical strengths: Sure, you know gear. You read the trade magazines to catch up on the latest products. All your musician and audio friends come to you for technical advice. But your real strength has less to do with your mastery of product specs and practically everything to do with communicating the benefits of the equipment for your friends and their music.

Instruments you play: Sweetwater is full of musicians; if you play an instrument, you’ll find plenty of people here who share your enthusiasm.

Gear you own: Most of our employees own their own home studios, ranging from modest recording setups to full-blown Pro Tools systems.

Family info: Fort Wayne is a great place to raise a family. We’ve been named “All American City” and one of America’s “Most Livable Cities.” Fort Wayne’s rapid growth means the city is thriving with many great employment opportunities for your spouse and great school systems for your children. Plus, Fort Wayne has one of the best cost-of-living ratios in the country.

How would your boss describe you? Hard working, resourceful, willing to do what it takes to succeed.

Call Kristine Haas, Director of Human Resources at (800) 222-4700 ext. 1050 or e-mail kristine_hass@sweetwater.com