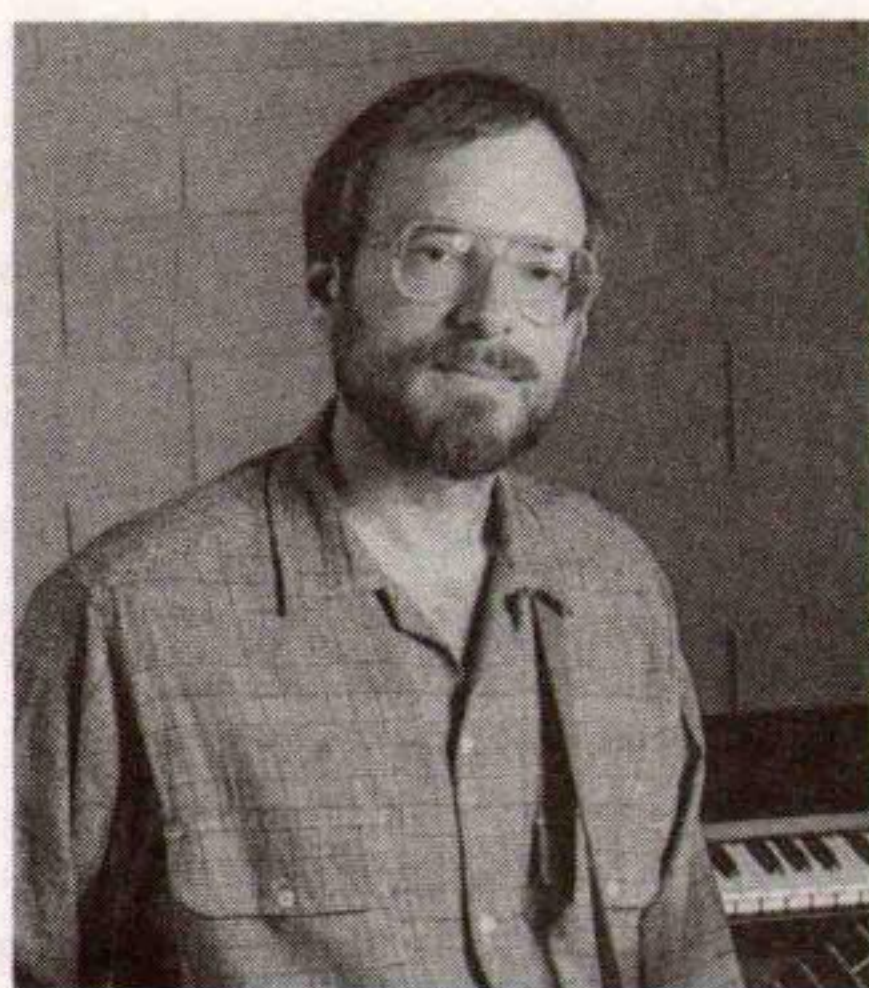


Transoniq Hacker

The Independent News
Magazine for Ensoniq Users

Meet the Voder

Craig Anderton



For: EPS-16 PLUS, ASR-10.

Product: *The Voder* (V1.1 reviewed).

Price: \$49.95.

From: Waveboy Industries, PO Box 233,
Paoli, PA 19301, phone (215) 251-9562.

At this point, most EPS-16 PLUS and ASR-10 owners are aware of the Waveboy series of disks: the *Parallel Effects*, *Audio In Effects*, and *Resonant Filter* disks (all reviewed previously in the *Hacker*) expand your keyboard's possibilities for a very reasonable price. So when Waveboy comes up with a new product, it's definitely an event. Here's the scoop on their latest.

But First, a Word About Phonemes

Speech is made up of several sounds called "phonemes." Stringing several phonemes together produces words. Rep-

resentative phonemes are vowel sounds such as "ee," "oh," "oo," consonant sounds such as "b," "n," "p," and diphthongs.

Many years ago, I had a Commodore-64 speech synthesizer made by Electro-Harmonix. It produced all the phonemes of the English language, and you could put together reasonably easy-to-understand words by stringing together phonemes in the right order. Being in a sampling state of mind, I sampled all the phonemes across an Emulator II sampler and had a blast making it say different things. The most fun, though, was triggering phonemes on a more or less random basis and having it produce gibberish. I also liked programming "doo-wop" vocal sounds, something a phoneme generator does very well.

What produces the characteristic sound of phonemes is the filter known as your mouth. Not too surprisingly, the basis of the *Voder* is a set of three parametric filters, which can be set up to simulate the type of filtering action that occurs in your mouth. More importantly, different keyboard keys can recall up to 64 different pre-programmed filter settings (which Waveboy refers to as EQ "frames").

However, filters don't mean much without a sound source to filter. So the *Voder* actually comprises two sections: one to generate a sound, the other to apply voice-like EQ as needed to "vocalize" the sound.

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Generally, your right hand plays the note associated with a particular sound source, while your left hand selects the vocal formant you want to impress on the sound. With a little practice (well, actually with lots and lots and lots of practice), you can make your keyboard "talk." It's not as intelligible as a vocoder or a real speech synthesizer, but the overall effect can be very cool. In fact, its impressionistic nature is a better option for several types of music.

The *Voder* also includes a dual-tap chorus/delay algorithm. This can be used with the *Voder*, or to process any signal present on Bus 2.

Getting Started

The disk comes with a demo bank, five instruments (bass voice, soprano voice, voder choir, voderobot — sort of a "Darth Voder" sound — and drum loop), a soundless instrument that plays the keys that trigger the various frames, a demo song, and two effects: alto *Voder* and bass *Voder*.

The default layout dedicates the bottom 16 keys to choosing particular phonemes (white keys vowels, black keys consonants). These tie velocity to glide time, so you can get some nice slides when you play softly. Keys above E3 play normally, and trigger the sounds to be processed.

You're not restricted to using the keyboard as a phoneme selector; various mod sources are also available, including sample-and-hold, velocity, mod wheel (try it!), and LFO. Flipping through the frames with various controllers can be some serious fun. Sometimes it really does sound like it's trying to communicate...

The demo sequence is required listening for orientation. It shows off some vocalizations and also creates a pretty neat groove using vodered sounds (the diction isn't the greatest, but I could make out "Waveboy" in there). If you like the demo sequence, you'll like the disk.

Four variations share the 64 available frames: the Waveboy default, a backup of the default, random gibberish, and static EQ, where the *Voder* acts more like a parametric equalizer.

Getting Framed

The frame is an essential *Voder* concept. Each frame is one setting for the three EQs and has 11 parameters: bandwidth, gain, and center frequency for each of the three filters, along with input and output trims. A global bass control affects all frames.

These filters are high-gain suckers — gain goes up to +30 dB. This means the input and output trims are crucial not just in preventing distortion, but keeping noise to a minimum (the *Voder* has a tendency toward noisiness unless you set levels very carefully). Be aware that you can get some pretty heavy-duty distortion, so make sure your monitors aren't up full blast when you start experimenting.

It's definitely bothersome to jump back and forth between the equalizers while you're playing with settings — filters are meant to be tweaked, and this "find-the-parameter-then-change-it" type of operating system makes the process tedious. I'd love to see something like the Peavey PC-1600 with a template suitable for playing with the filter values in real time.

A Chorus of Delays

The chorus/delay has two taps with individual pan, level, delay, and LFO depth parameters, and a common LFO rate. Delays are adjustable in 1 millisecond steps from 0 to 500 milliseconds.

Feed Me!

The *Voder* disk borrows a trick from the *Audio In Effects* disk by letting you send whatever's plugged into the audio-in jack into the *Voder* for processing. This is wonderful with drums or guitar power chords (and plenty of other stuff, but I don't want to give away all the punch lines). As the manual points out, though, this is not the same as a vocoder because the *Voder* action does not respond to the input signal, but to the frames that you select manually. Sorry, but the \$49.95 vocoder is not here yet.

Anyway, with this feature you can do things like program the keys for various EQ settings, then trigger them at a regular rhythm with a sequencer to impart rhythmic qualities to the input sound. Another trick is to use the *Voder* in the effects loop of a mixing console and bring in a subtle amount of voded sound, the way you would reverb. Come up with a cool sequence to play back frames, or simply hook up a drum machine and see what happens; either way, the results will be pretty interesting.

Is It Worth It?

Overall, this may not seem to be as essential a disk as Waveboy's previous offerings — whereas just about everybody wants to add parallel effects, use the on-board signal processors with external signals, or sound like a Minimoog, the number of people clamoring to turn their keyboard into a speech synthesizer is probably small by comparison. Nonetheless, the *Voder* disk puts an entirely new tool into the hands of sampling fanatics, and that alone is enough to raise goosebumps in those who want to do more than just load disks and punch up presets.

Once again, Waveboy has come up with a novel and creative tool. If you have any doubts about the validity of the concept, play the demo sequence: If you get sucked into it, you're ready for *Voder*. ■

Bio: Craig Anderton is the co-author (with Bob Moses and Greg Bartlett) of Digital Projects for Musicians, the ultra-cool new book that shows you how to build a MIDI computer from scratch and run software on it.

Front Panel

RND (🎵🎵)

Ensoniq News

By now you may have noticed a new Ensoniq logo (the logo was redesigned to make it easier to recognize). With the introduction of Soundscape, a 16-bit, 32 voice sound board for IBM compatibles, the tagline was also changed from "The Technology that Performs" to "Leading the World in Sound Innovation." This seems more appropriate for both worlds.

Also, although the Ensoniq area code 215 will continue to work for a while, it has been changed to the "new and improved" 610.

Third-Party News

We'd like to welcome On Point Productions (sampling CD's) to the Hacker family of advertisers.

Hacker News

Instant fame is yours for the taking. (Yes, once again the ol' *Hacker* is a little short on articles.) We need some TS writers! Give our editrix a call and see if you've got what it takes.

Transoniq-Net

HELP WITH QUESTIONS

All of the individuals listed below are *volunteers*! Please take that into consideration when calling. If you get a recording and leave a message, let 'em know if it's okay to call back collect (this will greatly increase your chances of getting a return call).

All Ensoniq Gear - Ensoniq Customer Service. 9:30 am to noon, 1:15 pm to 6:30 pm EST Monday to Friday. 610-647-3930.

All Ensoniq Gear - Electric Factory (Ensoniq's Australia distributor). Business hours - Victoria. (03) 480-5988.

SD-1 Questions - Philip Magnotta, 401-467-4357, 4 pm - 12:30 EST.

VFX Sound Programming Questions - Dara Jones, Compuserve: 71055,1113 or Internet: ddjones@netcom.com or call 214-361-0829.

SD-1, DP/4, ASR-10 Questions - John Cox, 609-888-5519, (NJ) 5pm - 8 pm EST weekdays. Any time weekends.

SQ-80 Questions - Robert Romano, 607-533-7878. Any ol' time.

Hard Drives & Drive Systems, Studios, & Computers - Rob Feiner, Cinetunes. 914-963-5818. 11am-3pm EST. Compuserve: 71024,1255.

EPS, EPS-16 PLUS, & ASR-10 Questions - Garth Hjelte. Rubber Chicken Software. Call anytime. If message, 24-hour callback. (305) 792-9231. Compuserve: 72203,2303.

ESQ-1 AND SQ-80 Questions - Tom McCaffrey. ESQUPA. 215-830-0241, before 11 pm Eastern Time.

EPS/MIRAGE/ESQ/SQ-80 M.U.G. 24-Hour Hotline - 212-465-3430. Leave name, number, address. 24-hr Callback.

Sampling & Moving Samples - Jack Loesch, (908) 264-3512. Eastern Time (N.J.). Call after 6:00 pm.

MIDI Users - Eric Baragar, Canadian MIDI Users Group, (613) 392-6296 during business hours, Eastern Time (Toronto, ONT) or call MIDILINE BBS at (613) 966-6823 24 hours.

SQ-1, KS-32, SD-1, SCSI & hard drive Questions - Pat Finnigan, 317-462-8446. 8:00 am to 10:00 pm EST.

ESQ-1, MIDI & Computers - Joe Slater, (404) 925-7929. EST.

Tested and Approved Hard Drives for the EPSs

The drives listed below are known to be compatible with the EPS and EPS-16 PLUS *at the time of testing*. Changes in firmware or hardware by drive manufacturers may make later versions incompatible (with the exception of **PS Systems**, **Ramtek (Eltek)**, and **Frontera** whose drives are configured to work specifically with Ensoniq products). Drives *not* included on this list may also work just fine. For up-to-date information about specific drives call Ensoniq Customer Service: 215-647-3930.

MANUFACTURER	MODEL
Dynatek	All Models
Frontera	All Models
PS Systems	All Models
Ramtek (Eltek)	All Models
Rodime	45plus, 60plus, 100plus, 140plus
Microtech	R45, N20, N40, N80, N100, N150
PL1	45 Meg Removable
Mass Micro	Datapack 45

Drives Reported to Work by Readers

The following drives have been reported to work satisfactorily with reader's EPS systems. No guarantees — but they'll *probably* work with yours. Try to try *before* you buy.

Jasmine Direct Drive 100	Quantum 100M, 210M
PowerDrive44	Seagate 80M
Syquest 555 (removable)	Tech Data Model 60e
Syquest 88, model 5110	

Current Ensoniq O.S. (Disk/EPROM)

EPS	2.49/2.40	SQ-R	1.02
EPS-M	2.49/2.41	SQ-R 32	2.03
EPS-16 PLUS	1.3/1.00F	SQ-R PLUS	1.15
MASOS	2.0	SQ-2	1.2
MIRAGE	3.2	SQ-2 32	2.03
ESQ	3.5	SD-1	4.10/4.10
ESQ-M	1.2	SD-1 32	4.10/4.10
SQ-80	1.8	DP/4	1.14
VFX	2.30	KS-32	3.01
VFX-SD	2.1/2.00	ASR-10	2.5/1.5
SQ-1	1.11	KMX-8	2.00
SQ-1 32	2.03	KMX-16	1.50
SQ-1 PLUS	1.1	TS-10/12	3.04

Back Issues

Back issues are \$2.00 each. (Overseas: \$3 each.) Issues 1-40, 61, 67-74, 77, 79 and 82-85 are no longer available. Subscriptions will be extended an equal number of issues for any issues paid for that are not available at the time we receive your order. ESQ-1 coverage started with Issue #13. SQ-80 coverage started with #29, (although most ESQ-1 coverage also applies to the SQ-80). EPS coverage got going with #35 (and also applies to the ASR-10). VFX coverage (which also applies to the SDs) got started in #48. The SQs got going in #63. (SQ articles also apply to the KS-32.) DP/4 coverage started in #88 (much of which also applies to the ASR-10). TS-10/12 coverage got going with #98 but owners should also check out sample reviews (EPS/ASR) and SD & VFX programming tips. Permission has been given to photocopy issues that we no longer have available — check the classifieds for people offering them. A free back issue index is available which contains the tables of content for all issues since Number 43.

Review: X-Static Goldmine Sampling CD

Tom Shear

Product: X-Static Goldmine 2-CD Set.

Price: \$99.00.

Source: East West Sound Warehouse, Contact: 1-800-833-8339.

For: EPSs, ASRs.

Anyone who has ever read *Keyboard* magazine before has probably seen the ads of East West Sound Warehouse. They're the six-page jobbers listing sampling CDs of every possible sound for every style of music you could possibly imagine. If they're not the largest distributor of these things, they must be darn close. This month, we'll examine one of their many offerings, a two-CD set of sampling CDs called the *X-Static Goldmine*.

For those of you who skip to the ends of reviews to see what the reviewer thinks of the product, I'm going to mess with you and just tell you right now that if you do any kind of dance music at all, you must purchase this CD immediately. This is not optional. Never mind the fact that a hundred bucks for two jam-packed sampling CDs is an unheard of price, what's on them accounts for what is probably the most complete and highest quality sampling CD I've ever encountered. Can you tell I liked it? For the skeptics, let's take a look at what is on these CDs.

The first disk starts off with 512 drum and percussion loops. That's right, I said 512. These are all flawlessly recorded and marked with their BPMs as is standard. These loops are extremely fresh and original, and the odds of you having any of these loops already is highly unlikely as most of them are either original or have been manipulated significantly. Stylistically the beats cover a wide range of BPMs and consist of funk, rap, old school, disco, reggae, techno-pop, rave, ambient, and some excellent ethnic loops. The best collection of loops I've seen.

Next we encounter a whopping 1103 drum and percussion samples for you to build your own kits with. In addition to TR808, TR909, TR727, TR606, CR78, CR8000, DR55, Kraftwerk, and the R8 sounds (every R8 sound as a matter of fact, including all the cards), you get a bunch of drum sounds lifted from records to mix in with the loops in the beginning. These last sounds were the only ones that didn't really move me. They sounded really over-truncated to me and were nothing that had me reaching for the "SAMPLE" button. But since they were intended for playing fills/adding variation to the loops, perhaps they aren't meant to stand up on their own.

On to disk two which begins with 128 spoken-type effects. These are organized, as the whole library is, in a very logical way. Overall, a few too many of these were from very obvious

sources, but the ones that weren't were so obscure that I didn't really mind as much. Plus, given such a large number of them, you're bound to find *something* you like.

Next we are given just as many basses to sample. In general these were from classic analog machines, many of which are hard-to-find standards in the club scene such as the SH-101 and TB-303. These range from thin, dinky sounds to the fattest, most vicious ripping sawtooths you've ever heard. About 16 loops of actual basslines are scattered about for those of the "music minus one" mentality.

This is followed by a ton of synth and orchestra/horn hits and the types of piano chords so common in the Italo-disco scene. After that are a bunch of synth sound fx with a distinctly sci-fi appeal (Kraftwerk and Erasure fans take note). One of my favorite parts of this CD were the so-called "vocoder loops." These are basically drum and percussion loops that have been fed through a vocoder to get a really unusual sound that I can't accurately describe other than "cool."

On top of this are tons of sound fx, ethnic vocals and monks chanting (look out, Enigma!), ambient synths and sound fx, robot voices, and more. You get tons of each to choose from, but it could be a difficult choice, as they are almost all excellent.

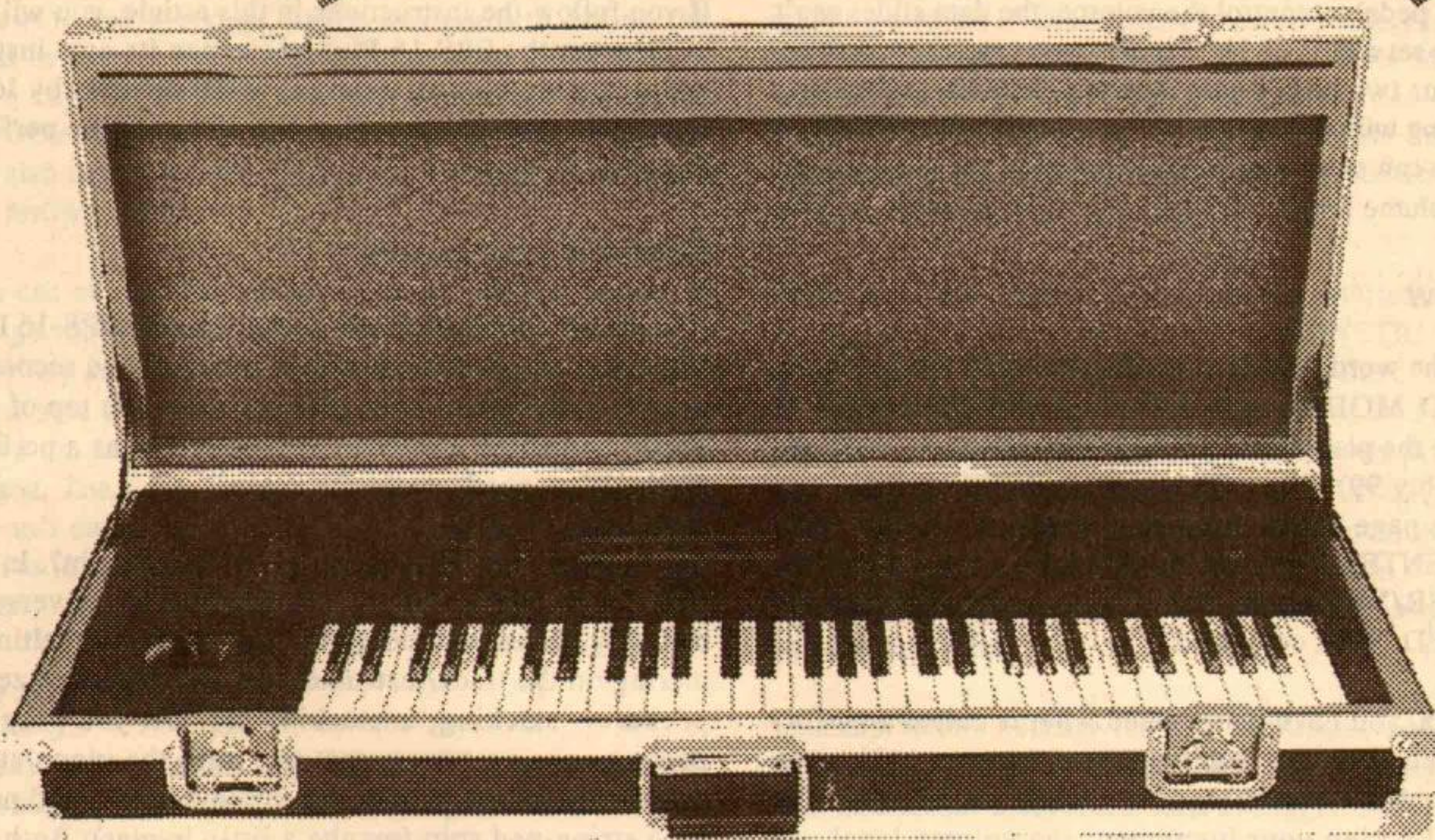
As it is, you have more great sounds to sample than one person could possibly handle in an affordable package, but in addition to this, East West Sound Warehouse has the incredible policy of including another full-length demo CD with every purchase. Unlike most demo CDs, however, this CD consists of actual track selections from the many CDs East West offers. These are all the same samples you'll find on the full-length versions of each CD which means — that's right — you have yet another, fully operational, incredibly useful sampling CD for FREE. Call me crazy, but \$99 for three sampling CDs sounds like a pretty good deal to me.



So there you go. It's really hard to see how you could go wrong with this CD. If you are making any kind of contemporary dance music, from r&b ballads to hardcore industrial, you'd be making a big mistake by not checking this CD out. Pristine sound quality, wide variety, and a low price add up to one incredible deal. ■

Bio: Tom Shear has the strength of ten men.

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Performance Presets in the EPS-16 Plus

Robert Schulze Lutum

Let's say you're accompanying a singer with a piano sound in your EPS-16 Plus. In the intro, where there's no singing, you might want to be louder than when the singing sets in. You don't have a pedal to control the volume, the data slider can't be trusted to set a desired level in the speed required, and because of your two heavy gold Rolexes (one on each wrist) you're playing with velocity = 127 all the time. But still there is hope: You can use a performance preset to set two instantly recallable volume levels.

Here's How

Make sure the word **LOAD** in the display is lit but not flashing, (**LOAD MODE**), and the piano **INSTRUMENT** is selected. Set the piano **INSTRUMENT**'s volume level for the intro (probably 99). Press **COMMAND INSTRUMENT** and scroll to the page where the display reads: **CREATE PRESET**. Press **ENTER/YES**. The display reads **Create Preset #1**. Press **ENTER/YES** again. The display reads **COMMAND COMPLETED**. What command?

Well, Schulz, you have just created what is called a performance preset. It means that from now on, every time you press the number 1 button when in **LOAD MODE**, the EPS-16 Plus will assign your instrument the volume level you defined before you pressed that last **ENTER/YES**.

Get back into **LOAD MODE** by pressing the **LOAD** button. Set the piano's volume level for the verse, let's say 75. Press **COMMAND INSTRUMENT** and scroll to the page where the display reads: **CREATE PRESET**. Press **ENTER/YES**. Now the display reads: **Create Preset #1**. Press the Up arrow. It now reads **Create Preset #2**. Press **ENTER/YES**. The display reads **COMMAND COMPLETED**.

Back into **LOAD MODE**. Press the button labelled "1." Your piano volume level reads 99. Press the button labelled "2." Now the volume level is 75. No pedals required, no nervous fiddling with the data entry slider. Works like a charm. And: there are 6 further memory slots for instantly recallable piano volume levels, namely performance presets 3 through 8.

How It All Started

The concept behind performance preset was born in the old EPS's pre-SCSI era. It's one of the features that put the "P" (performance) into the EPS. The idea is that you can load 8 instruments into memory with enough variation to get you through a live set with minimal necessity to load new instru-

ments from disk. The speed of the SCSI option makes it less necessary, but no less useful.

If you follow the instructions in this article, you will be able to program the EPS-16 Plus to arrange its own instruments and a combination of external MIDI devices by loading a bank from disk and choosing one of 8 possible performance presets.

Stacking Instruments

If you have two instruments loaded into the EPS-16 Plus, you can select one, and by double-clicking on the second instrument's track button, stack that instrument on top of the first. The status of the stack can also be stored as a performance preset. What good can this be to you?

Let's say you're accompanying this singer, right?. In the intro you want a piano/string-pad stack, but, in the verse, string-pad only. Either you program these stacks in realtime, hammering on the track/instrument buttons like a crazed woodpecker — stacking, unstacking etc. OR you program two performance presets, preset one with the piano/string-pad stack (with musically pleasing volume levels) and preset two with string-pad solo (maybe a little louder). Both of these presets are instantly recallable. Try it.

In addition to storing the status of the stack, a single performance preset stores (for each instrument):

- a keyboard zone
- a transposition interval
- a volume level
- a pan position
- a patch select setting
- a program change number

And the EPS-16 Plus can store 8 performance presets! These can be saved to disk as part of a bank.

Keyboard Zones and Transposition

Let's assume that a song requires the keyboard player to play a saxophone part, an organ part and brass. This is how I go about setting this up:

Load brass sound into Instrument/Track 1, organ sound into Instrument/Track 2 and so forth. Press the "Load" button and then select an instrument. This puts you into Load Mode

(Load button lit but not flashing in the display).

Select an instrument you wish to assign a keyboard zone to (e.g. first two octaves for the brass sound). Press EDIT then INSTRUMENT. Use the left arrow button to scroll to where it says RANGE = Note # to Note # (Using the right arrow will send you to every single position where an EDIT INSTRUMENT parameter can be changed, and these aren't only a few!). Use the keys on the keyboard to define the range, but be careful not to play around on the keys, as each touch of a key will define a new keyrange while you are on the RANGE= page. So define the range and then — vamos! You can also define the keyrange using the data slider or the up/down arrow buttons.

Now you can change the transposition of that Instrument. If you change the transposition of an Instrument before you define the key range, you will find that the key range is not what you set, but shifted by the same amount as you transposed the instrument. Is this a bug or a feature? We'll never know. The ASR-10 does the same. If you know about this, it won't cause much trouble. Perform these operations on the other instruments so each instrument has its own keyboard zone.

Volume and Pan

We already know that an INSTRUMENT's volume is adjusted using the data entry slider or Up/Down arrows in LOAD mode. To store an INSTRUMENT's pan setting in a performance preset, press EDIT/TRACK, scroll to PAN = #, make your setting and get back into LOAD mode. Remember, the EPS-16 Plus features 8 performance presets, which means that each instrument can be assigned 8 different pan settings for instant recall.

Patch Selects

I was firmly convinced that this feature didn't work. Then I discovered that the performance presets stored only the patch select settings that are "locked in" when the EPS-16 Plus is in LOAD MODE. You "lock in" a patch select setting by pressing the INSTRUMENT/TRACK button while holding down the desired patch select button(s). The settings you make in EDIT/INSTRUMENT mode are not stored as performance preset data!

MIDI Instruments and External MIDI Devices

You can control an external MIDI device from the EPS-16 Plus by loading a regular EPS instrument (e.g. PIANO 241) and setting its MIDI status to either MIDI, EXT or BOTH in EDIT/INSTRUMENT mode. If you need a zone on your EPS-16 Plus's keyboard that controls an external MIDI device exclusively, it's a good idea to create what is called a

MIDI INSTRUMENT.

Press COMMAND INSTRUMENT. Scroll to CREATE INSTRUMENT. Press ENTER/YES. Select a track for the instrument. Good. Now press EDIT INSTRUMENT. Use the left arrow to scroll to where the display reads: MIDI STATUS = BOTH (this is what it usually reads. It could also read: MIDI, EXT or LOCAL). Since we are in the business of creating a MIDI INSTRUMENT, we will select MIDI. If you have connected your external MIDI device's MIDI IN port with your EPS-16 Plus's MIDI OUT port, and the external MIDI device is receiving on the channel the instrument is transmitting on, you should now already be able to play it from the EPS-16 Plus's keyboard.

Sometimes you might just find that the external MIDI device is triggered not only by an EPS MIDI INSTRUMENT, but also by an EPS Instrument. Suppose you have loaded an internal EPS bass sound into TRACK 1, and that you chose a pad sound from the external MIDI device which you want to play from the EPS's Keyboard via a MIDI INSTRUMENT on Track 2. Even though you have set the keyranges correctly, the keyboard zone reserved for the bass sound is also playing the external MIDI device's pad sound, which might not at all be what you want.

This is probably because the EPS instrument's MIDI status is set to BOTH. It has to be changed to LOCAL, if you want the bass instrument's keyboard zone to trigger the bass sound exclusively. Changing an EPS internal instrument's MIDI status will however make it necessary to save the whole edited instrument to disk again, sample data and all, if you want it to keep that setting when you reload that instrument as part of a bank later. An EPS instrument's MIDI status is not a parameter that is saved in a performance preset. This is very unfortunate. Maybe someday the MIDI status will be added to the performance preset's fine range of parameters.

A MIDI INSTRUMENT can be zoned, transposed and stacked as any other instrument. It can be assigned volume levels and program change numbers. Pan settings are not transmitted to external MIDI devices — neither are patch select settings.

If your external MIDI device is in Multi Mode, you can play up to 8 different programs from the EPS-16 Plus's Keyboard at the same time by assigning different EPS MIDI INSTRUMENTS different MIDI channels and program change numbers. This is done in EDIT INSTRUMENT mode.

All this sounds very complicated, and I now realize why no member of the *Hacker's* illustrious bevy of writers has touched the subject and everybody wants to do sample reviews. Once you get the knack of these features you will be amazed at how useful they are, so bear with me, those of you

who have followed me this far, while I unravel the enthralling tale of the masterkeyboard.

Saving To Disk

How to save the whole kit 'n kaboodle to disk is an important part of the story. Let's assume you have

- a) loaded all the internal EPS instruments you need for a particular performance
- b) created all the MIDI instruments you need
- c) arranged these instruments in a split/stack/layer or combination thereof and
- d) created at least 1 performance preset

Before you save anything to disk at all, do the following: In LOAD MODE, press button 0. This will undo all stacking and zoning, locking in of patch selects, panning, volume setting and transposing that you have programmed for your performance preset(s). But fear not, for your performance presets are still instantly recallable. If you don't press 0, you will save your INSTRUMENTS with the keyranges etc, of the currently active performance preset. This can cause confusion.

You must now save to disk in this order:

- a) All EPS internal instruments in which you changed the MIDI status in the EDIT INSTRUMENT page or any setting other than the performance preset parameters program change number, volume level, pan position, transposition and keyrange.
- b) All MIDI instruments. I always give MIDI instruments the sexy names of the external MIDI device sounds they are supposed to trigger, although this is not absolutely necessary. But with a hard disk's storage capacity and a MIDI instrument costing me only 5 blocks, I think it's okay. And it's nice to see which EPS track is controlling which sound, while I fine adjust volume settings when in LOAD MODE during a live performance.
- c) The bank (I always give the bank the same name as the song I perform with that setup).

Alas, performance presets cannot be given sexy names, even though their effects can be quite drastic. So you might want to write down what a performance preset will do to the setup.

Performance Presets and MIDI

The EPS-16 Plus will call up performance preset #1 when it

receives program change number 17 (16 if you're counting from 0). Program change number 18(17) calls up performance preset #2, and so forth, up to program change number 24(23). Performance presets will only have an effect if the EPS-16 Plus is in OMNI, POLY and MONO A modes.

The optional volume pedal controls the volume of all instruments being controlled from the EPS-16 Plus. That's quite neat.

Applying These Fine Features Musically

What has all this got to do with rock n' roll, you might well ask. First of all, performance presets make the EPS-16 Plus a very fast and versatile master keyboard, what with stacking, zones, transposition and so forth. I love the YAMAHA SY 77, but keyboard control-wise, it's just nowhere. Hear it come alive when you play it from an EPS-16 Plus!

Use performance presets like patch selects to call up entirely new sounds even if you're not using outboard equipment. Switch instantly between multiple pan settings, octave ranges, stack combinations. Use them to transpose the keyboard if you suddenly have to adapt to a vocalist's singing range.

My relationship to the ol' EPS-16 Plus has profited greatly from these discoveries. Maybe there is even hope for some new features for performance presets in the EPS-16 Plus. So here's —

What I want for Christmas:

If you use the EPS with a CD ROM drive, which I plan on doing in the near future, it would be a VERY big advantage if an INSTRUMENT's MIDI status and channel were parameters storable as performance preset data. So, dear Ensoniq, excuse one of your genius engineers from the ASR 2000 (my suggestion for next year's model) project for 5 minutes, so he can quickly hack the code for this feature. Thank you very much. ■

Bio: Robert Schulze Lutum is a musician and sound engineer working in Berlin, Germany. He firmly believes in Santa.

Missing or Damaged Issues?

Every month we mail out thousands of issues and every month about a dozen get "misplaced" by the Post Office. If you're ever one of the winners of this lottery, just give us a call (503-227-6848, 8 am — 8 pm Pacific Time) and we'll be happy to mail a replacement copy — no prob. (However, if you accuse us of nefarious schemes to "rip you off," you will be offered a refund and given helpful subscription info for other musician magazines.)

The Covert KS-32

Pat Finnigan

Product: The Covert KS-32 videotapes.

For: KS-32.

Price: \$119.95.

From: Covert Videos, 519 East I-30, Suite 144, Rockwall, TX 75807.

Phone: (214) 722-1601 (voice), (214) 722-1404 (fax).

Wouldn't ya know it? Just as I'm packing to go do our two wonderful weeks of Annual Training for the Indiana National Guard this month, one of those brown bulbous envelopes that can only contain disks, tapes, software or other magnetic paraphernalia arrived at my mailbox today. And of course the bills, letters, coupons and 21% APR instant cash forms wound up on the floor along with the multi-colored shock-absorbent filler of the bulbous brown envelope as I pulled out two factory-fresh shrink-wrapped VHS tapes from our Covert Video operation down in Texas-way. Okay, I'm not leaving 'til Friday anyway: what difference is another coupla hours gonna make? Into the VCR they go...

The Roses

Rick has definitely cleaned his act up for summer. He's shaved the beard to a Vandyke, and judging from the heat this summer I don't think he was going for the alternative look. Due to the smashing financial success of the Covert Video operation, he's now sporting a new wardrobe. Well, a new dark blue hawaiian shirt (for the formal look) for this shoot, so it's a new Rick we get to see for the next six hours. Same kinda delivery as we've come to know and love, Rick shows us with the same representative type of style of the other tapes of the library how to become a KS-32 master. The material is as thorough as ever, but the docs are a little different, as the tape counter locations are not given. Seems that different VCR's use different kinds of counter drives (belts, gears, magnets, etc.), so in the interests of accuracy, it's now up to you to note start/stop points. In the interests of accuracy, it's a point well made, but it was a little easier to spool to 3210 and be close to the topic you wanted to brush up on. No biggie, just be sure to use a pencil: you'll lose a coupla numbers in the FF/Rew shuffle...

Again, as in the ASR tapes, pretty thorough instruction: Rick covers all the bases with the usual aplomb we've come to expect of an Ensoniq product rep. Tweaking effects and routings in song/sequence mode are explained in detail, one of the most overlooked (if not *the* most overlooked) menu

groupings in the KS/SQ variants. The specific KS-32 functions (Create Preset, Lock Preset, etc.) are well discussed — this tape could be a panacea for all owners of the SQ-series mutants in the Ensoniq product line, so given a bit of judicious remote control button surfing, this series of tapes covers all SQ-series (with some given exceptions like expansion-less 21-voice SQ's and differing patch names/locations) instruments, and can be used to further explain/understand Ensoniq synth architecture.

The Thorns

The video quality, is, well, to quote a line from Bevis and Butthead, "Uh, this sucks." I'll be polite and say that Rick must've gotten a package deal on the photographer for these shoots, as the video quality is about the same as the ASR tapes I reviewed in #105, very "covert" in appearance. I asked Jane about these KS-32 tapes since I allegedly received 3rd generation ASR tapes for the previous review: she assured me that Marilyn specifically stated these tapes were finished product. I took out my contacts and put my cheaters on — that didn't help the blur. I even put in a new set of Accuvues to make sure it wasn't me, and in the shuffle, discovered the problem...

Every time Rick's finger enters the camera field to push a KS-32 button, the camera's autofocus tried to interpolate a focal point between Rick's moving finger and the stationary KS-32 front panel and accomplished neither. When the silk-screened words on the front panel of the keyboards are an illegible blur of the three primary colors masquerading as white, don't beat the tape, fix the camera. Better yet, ditch the camera.

I'd like to be as subjective with these tapes as I am with sound reviews. But video quality is clinically objective: it either looks good or it doesn't. And you don't have to work in a high-end video market of 20" Trinitrons, 5Mb/sec video digitizers and NuVista+ 32-bit video capture cards to recognize video quality.

And, sadly, since the KS-32 has no disk drive, there's no unidentified flying beta OS disks in this epic...

The Deal

The video quality of these tapes most certainly does Rick an injustice. And although it can be said that \$20/hr for this level of instruction is a reasonable price, 120 Simoleans is

still a lotta cake in my book. There's a great deal of useful information to be gleaned out of these tapes if you can put up with the eyestrain. My point is that you shouldn't have to, especially at \$120. Rick's message is far more clear than these tapes. Good tutorials. Lousy video quality. ■

Bio: When not answering broadcast NTSC/PAL video-capture questions for TrueVision, Pat Finnigan is a tech

support person for RasterOps, a company that makes video boards and monitors for Mac and IBM platforms. He still uses a B-3 for a keyboard stand and watches the alpha channel.



Copy Klatch

Making Life Easier with the VFX/SD-1 Copy Functions (& TS synths, too)

Robby Berman

Anyone who has spent any time entering Hackerpatches into a VFX, VFXsd or SD-1 must certainly have a trembling respect for all the parameters that make up a VFX or SD Sound. A simple one-wave program will typically have about a hundred values to dial in. Of course, most sounds use more than one wave — you can have up to six — making the whole process sorta overwhelming. I'm pretty comfortable with this here synth editing, and it takes me a good 20 minutes to a half hour to enter a Hackerpatch.

Or suppose there's some part of some pre-existing sound that you wanna lift and put up against some other component of some other sound. You can spend lots of time just transferring parameter values from one place to another, time you'd no doubt rather be sharing with your patch-tweaking muse.

While it's obviously terrific to have so many programming options for sound sculpting, yikes, there's a lot of diddling to do. Fortunately, the programmers at Ensoniq also dislike wasting time, and they've thoughtfully saved our mortal butts with a powerful raft of Copy functions in the VFX and SD series synths.

What the copy functions do, in general terms, is make note of what you've been doing, make a copy of what you've been up to, and let you move that stuff some other place, without having to dial in a single parameter. For you VFXsd and SD-1 owners, select the Sound FLUGEL-STRG from the fourth bank in the first set of ROM Sounds (classic VFXers can call up BIG-MONEY from the VFX ROM Sounds). Press the Effects button in the Programming section on the right side of your synth's front panel. You'll see that the effect used by FLUGEL-STRG is LARGE HALL REVERB. Let's say that we want to copy this effect — with all its numerous parameter settings — to another sound altogether. You might expect that we have to go to our destination Sound and dial in a whole slew of values; with the Copy functions, however,

we've got a much, much easier way to go.

Press the Copy button in the row of buttons just below the Effects button we just pressed. The top line of the display says "COPY EFFECT PARAMETERS." Your VFX/SD, noting that you were just on an Effects page, therefore figures that that's what you want to make a copy of. Pretty smart, huh? This is what Ensoniq refers to in the Musician's Manual as the "copy context": the VFX/SD makes note of where you were just prior to pressing the Copy button and sets you up to copy it. Press the soft button below MAKE COPY to actually make a copy of FLUGEL-STRG's Effects parameters.

Now select the Sound BRASSY (VFXers can select SPRING-TIDE). Don't worry about losing the copy we just made — it's safely stowed away in a special area of memory called the "copy buffer." Press the Effects button again. We can see that BRASSY uses the CHORUS+REVERB .1 Effect.

Press the Copy button — once again we see COPY EFFECT PARAMETERS because we were viewing BRASSY's Effects just before pressing Copy. But this time, we don't want to make a copy of BRASSY's Effect. Instead, we want to recall the Effects parameters from FLUGEL-STRG that we've got stashed away in the copy buffer. So, press the soft button under RECALL.

Now if you press the Effects button, you'll see that FLUGEL-STRG's LARGE HALL REVERB effects have been copied to BRASSY. Simple, no? Sure beats having to manually dial in all of those effect parameters one by one. Simply save the newly-modified Sound — if you want to, that is — and you're done.

This Copy function thing is a mammoth time-saver. Plainly put, the deal is this: If you want to copy a component of a Sound to some other program, or to some other place

(another wave, a different envelope, perhaps) in the same Sound, simply get the component you want to copy up on the display, press Copy, and then the soft button underneath MAKE COPY. Get over to where you want the copy to go (that is, make sure you're viewing the component you want to replace), press Copy again, and press RECALL. That's it.

As usual, the programmers at Ensoniq thought long and hard about all this when they were getting the Copy functions together, and they came up with a scheme that's meant to cover all possible copying scenarios (by the way, I'm sorry to say that I've recently learned that there's no such word as "scenaria," which oughta be the plural of "scenario," if you ask me. Which you didn't.) On page 10-2 in your Musician's Manual, you'll find a nice, clear little chart telling you exactly what gets copied when. The left column describes the displays you'd be looking at before pressing the Copy button, and the right column tells you what gets put in the copy buffer when you press the soft button below MAKE COPY.

With super synths like the VFX and SDs, and all their programming possibilities, the ability to easily copy pieces of Sounds hither and thither is a fantastic lifesaver. And if that weren't powerful enough, the Copy functions have some other exciting traits that we'll discuss when we meet again! ■



Bio: Robby Berman is a musician living in now-famous Saugerties, New York, site of the incredibly-hyped Woodstock '94 festival. Or at least he was as of this writing, three days before the festival kicks off — hopefully, he survived. His latest album is "Rings and Rings."

Sampling Sounds for the TS's

Jeffrey Rhoads

There's a lot of great pre-programmed material included in the TS-10/12 to get lost with; sounds and presets for almost any conceivable situation. And as if that weren't enough, we've got a gargantuan library of Sampled Sounds at our beck and call. The TS offers us an almost infinite palette of sonic color to paint with — as evidenced by its ability to mix and blend sampled sounds with on-board programs.

Too bad there's a whole cluster of TS owner-operators who haven't tried that (yet). They may be missing the point of even having a TS-10/12. "I don't know enough yet, I might break something." "I don't have time." "Why bother, the factory sounds are too good." "I haven't finished learning the Setlist." "My dog ate the manual." Whatever! We've all been there at some point. The only way to quell the fear and cool the excuses is to do it! Since I'm being so darned picayune about all this I figured the least I could do is help out...

Sampled Sounds are mixed with TS sound programs the same way sound programs are mixed with each other — using presets. Setting up a preset of your own should propose little or no hassle. For this example, the preset won't be comprised of three sound programs, but, rather, two sound programs and a Sampled Sound.

How do we choose the programs and Sampled Sound? Maybe according to what we need for a particular song or

project. Or, maybe we just need to experiment... have a good time. I've decided to build on an orchestral idea because it shows off the Sampled Sound so well.

Many of us, however, may make our choices based on what Sampled Sounds we have at our disposal. If you've only got the Demo Sampled Sounds packed along with the TS-10/12, it's okay, you've got enough to build a preset (even if it's not just like our example). However, I'd suggest you take a look at the (long) list of Sampled Sounds that came with your unit. You're bound to find something you like. Sampled Sounds available on floppy are relatively inexpensive. Contact your dealer for details.

The Sampled Sound I'm using is one of those included with the ASR-10, on *Essential Sound Disk AD-002*. From that disk I've selected Orch Strings. But, we won't need the Sampled Sound just yet. First, we'll select and install the sound programs into our preset.

Press the Preset button to enter the Preset mode. Select a preset location from User Banks U0-0 or U1-0; one you won't mind doing without. I'm using the very first preset, Anothrspace. (We might want to re-name it at some point!) Pressing the Preset button again will put you into Preset Edit mode. The top line of the display will reveal the three sound programs that make up Anothrspace; "Bell-Hook," "Palette,"

and "Best-Pad." (We won't be needing any of them.) "Bell-Hook" has a solid underline (indicating its primary sound status) while "Palette" and "Best-Pad" both have flashing underlines (indicating their layered status). Since "Bell-Hook" already has a solid underline, we'll replace it first. Press the Replace Track Sound button under the Track Parameters section. (This will let us work from the "current" Track parameters and effects values.) The Sounds button should begin to flash.

It's time to choose the first sound. I've decided on the solo orchestral instrument, "Englishorn." Go to BankSet R4-3 and underline it. Press the Replace Track Sounds button again and... presto!... "Bell-Hook" has become "Englishorn."

Now you can assign the second program sound with no sweat. Just make sure that "Best-Pad" has the solid underline by pressing the softbutton above it twice. Our replacement sound this time around is "Pizz-Strngs." Just follow the steps we just used for "Englishorn" and you've got it.

But, hold on. Why'd we skip the "center" sound, "Palette"? That's where we're going to drop the Sampled Sound. If you're beginning to suspect that it's really a breeze to do exactly that, you're right.

Remember that for this example I'm using the ASR disk AD-002. It contains the Sampled Sound, "Orch Strings." "Orch Strings" will round off our orchestral preset. However, you may also recall that for purposes of demonstration, any Sampled Sound you have access to will do the trick. (It just may not sound the same!)

What'd you do with this Sampled Sound once you've got it? Install it in the preset just as before. The only difference is, you've got to load it first. The Sampled Sound will make its home in BankSet S8, where the "S" stands for sample. Looking across, the PSET display should now look like this: ENGLISHORN ORCH STRINGS PIZZ-STRNGS. ORCH STRINGS should be underlined. Double-click the softbuttons above ENGLISHORN and PIZZ-STRNGS to audition the three sounds together (their underlines will flash).

Okay, we've got a complete preset.

The TS preset, of course, is quite flexible. We can edit its programs with preset Track Parameters that are quick and dirty. When compared to more complex Program parameters, Track Parameters are quick and dirty but very effective editing tools. As evidence of such, we'll begin work on the sound programs within our preset. The resident Sampled Sound must be handled somewhat differently, as we'll see. Press Presets twice. Double-click and select (solid underline) ENGLISHORN and it's ready for editing.

In the Track Parameters section, press Mix Pan. The display will reveal the Mix page for TS programs. (Parameter values are just beneath each program.) The current MIX value for ENGLISHORN is 127 (max). You may find that's too loud. Underline the MIX value, 127. Change it to 100 using the data slider. Press Mix Pan again to access the Pan page. Underline the current PAN setting of 00 STEREO. Change it to +26 STEREO. You're going to follow this system for every Track Parameter you alter: Press the Track button to access the desired parameter page, select the parameter you wish to modify (underline it) and then change it. The remaining Track Parameters for ENGLISHORN are: ATCK = +13, for a softer attack, RELS = +12, which is closer to the ORCH STRINGS release setting, BRIT = -03, TIMB = 000, ZONE = A0 — C8, VELR = 0050 — 127, VEL = -04, XPOS (press the Tuning button) = +0 +00, DTUN = +19 and RATE = +00. We're not going to change the current value for Controllers On/Off, Performance Options or Track MIDI. (Remember — for TIMB to have an effect, Timbre must be chosen as a modulation source somewhere in the sound program.)

Similarly, the Track Parameters for PIZZ-STRNGS are as follows: MIX = 071, PAN = -37 STEREO, ATCK = +05, RELS = +00, BRIT = -13, TIMB = 000, ZONE = A0 — C8, VELR = 013 — 088, VEL = +04, XPOS = +0 +00, DTUN = -10 and RATE = +00. Press the Track Effects button three times. I've changed the current effect # 46 CHORUS + REVERB 2 to effect # 50 EQ -- CHORUS + EQ -- DDL. We're going to alter two of the current effect values; the BASS LEVEL will rise to +10 and ECHO — LEVEL drops to 22.

Save your work so far. Press Presets twice. In the lower right of the display press the softbutton under *WRITE*. In the upper right of the display, re-name your preset if you like. Press and hold the preset button and SAVE the preset by pushing the softbutton above *EDITED*. On to the Sampled Sound.

Press Presets 2x and select ORCH STRINGS. You're now in Sample Edit Mode. Press the Write Program button to access the Sampled Sound TRK (Track) page. It's here that the TRK values for the Sampled Sound can be changed and saved as a Sample Edits file. (You can edit the Sampled Sound using the Track Parameters section. But, since Sampled Sound memory is volatile, your edits will be lost when you power down.) The TRK values for ORCH STRINGS are; XPOS = -12 (one octave down), RELS = +3, BRIGHT = +20, PRESS = KEY, RATE = +8 and XCTRL = 0. Again, you'll have to save these values as a Sample Edits file.

Sample Edits must go on a different disk than Sampled Sound wave information. Eject the Orch Strings disk and put a blank formatted disk into the drive. When you've completed this rather painless process, you should have all your

Sample Edits for ORCH STRINGS on a floppy. Eject the disk and hold it with either hand. With lustful anticipation of your new edits, turn your TS off. Now, so you won't be completely disenchanted, turn your TS on again. The Auto-Load will, (1) ask you if you want to AUTO LOAD ALL SAMPLED SOUNDS? (2) ask for the Sampled Sound and (3) ask for the corresponding Sample Edits file.

Please make some attempt to contain your rapture.

Oh, by the way, what happens to our preset when the Sampled Sound isn't around? We simply assign some like sound

program in its place, just as we would in any preset. This sound program becomes the Surrogate Sound; I've chosen "Concert-Str" from ROM BankSet R-4. If the Sampled Sound isn't present, *BANK S8-8* will show in the display. However, the sound program we hear is "Concert-Str."

So. We've covered a fair amount of ground. But once done, doing it again ain't no big thang. We should use the often fatter, more realistic Sampled Sounds when we like. Nope, no reason to put it off anymore. Besides, look at it this way; you've mixed your Sampled Sound in about the the same time it took for your dog to eat the manual. ■

The DP/4 and MIDI

Part III — Modulating Effect Parameters

Steve Byhurst

Hello and welcome to the final part of this series for those of us who just can't stop modulating our parameters.

Pitch Shifters

The DP/4 offers four different pitch shifter algorithms, all having two pitch-shifted voices. Each algorithm is designed with a specific purpose in mind. The Pitch Shifter is the standard and is best used to provide a doubling effect. There are tuning, level and pan parameters for each of the voices, all of which provide opportunities for real-time modulation. In addition you can also make use of the MIX parameter to fade the effect in or out as required and there are LFO rate and width controls to bring in a chorus type effect if you want one. Pitch Shift 2U offers the same parameters but uses its extra processing power to provide smoother pitch shifts for higher quality effects. Use it in the same way as the 1U.

PitchShift-DDL is the algorithm that allows the spectacular spiraling up and down effect as demonstrated in a couple of the original presets. It gives us the same controls over the two voices as before but replaces the LFO with a comprehensive DDL section. Experiment with the DELAY TIMES, MIX and REGEN values to give some really unusual sounds.

Finally, FastPitchShift is the same as the standard pitch shifter apart from having a much narrower range which allows us to make fast pitch corrections where maybe our vocals are not quite as in tune as we would like. Input your recorded vocal track to the DP/4, assign a continuous controller like the mod wheel to control the FINE parameters, and you're all set. When you get a drift out of tune use the mod wheel to put the vocal back on track. It does take some practice to get this right but then, if you have the audio track

in sync with your sequencer, record the controller data onto a sequencer track and you can have repeated playbacks with perfect vocals!

Amps and Speakers

On the whole I feel that this group of effects benefit least from modulation control as they are basically emulations which, once set up to the particular sound you want, are not usually changed during a performance. Generally, it is the instrument feeding the amp or speaker that is changed. You can, of course, use a more convenient controller (like a pedal) to set up parameter values rather than using the DP/4 keypad and this is one more way of making use of the modulation facilities.

All three guitar amps feature similar parameters but are optimized for different levels of distortion. The first is for hard rock, the second rhythm 'n' blues and the third heavy metal. It is really the combination of settings that specify the sound so experimentation is the order of the day.

There are three programmable speaker emulations. Apart from changing the OUTPUT GAIN there is very little else you can do with the Speaker Cabinet. Tunable Speaker is much more flexible and supplies no less than eleven EQ parameters to get just the speaker sound you want. The last, Rotating Speaker, is the exception to the rule for this group. It cries out for real-time modulation, especially when playing programs that are named after a certain well-known organ model. The SPEED and INERTIA parameters are the main controllers of the effect, but also try using DISTORTION LEVEL OUT and DISTORTION TONE to achieve the exact timbre you require.

EQ and Filters

I have already mentioned in a previous article that a basic EQ section is available within some of the combination algorithms. However, there are occasions when more detailed control of tone is required and the Parametric EQ meets this requirement very nicely by providing four separate bands of EQ. Use the GAIN parameters to apply cut and boost to chosen frequencies.

VCF-Distortion provides, amongst other things, a Wah-wah sound with PRE/POST-DISTORTION VCF Fc controlling the level of Wah-wah modulation. To replicate the famous pedal effect use a CV pedal to control these parameters. Distortion and Auto-wah effects can also be obtained.

There are two remaining filter effects. Despite its name the Rumble Filter can dispose of hissy high frequencies as well as nasty low frequencies and is particularly useful in feedback routings. The VandrPol Filter is a type of exciter effect and brightens up dull recordings. Both of these algorithms need careful setting-up and as such are not really suitable for modulation control.

Signal Shapers

I include under this heading algorithms which process the envelope shape of a sound. All of them need to be programmed very carefully to get the right effect but, once they have been set up, modulation can be used to bring in the effect at different points of a song or to dynamically vary the results. The EQ-Compressor, Expander, Keyed Expander, Inverse Expander and De-esser all have parameters which can be used for these purposes, although you do need to have a full understanding of what each one does to use them successfully.

The Ducker/Gate algorithm comes in useful for creative experimentation as well as the traditional ducking function. Interesting results can be obtained by gating a sustained sound (like a synth string chord) with a transient source (maybe a snare drum) to provide rhythmic staccato effects. Try playing a sustained sound over the top of a transient sound sequence and use the mod wheel to change the effect by altering the various parameters available. Some great results can be achieved.

The Vocoder

This is another algorithm where most of the effect parameters need to be adjusted in advance of a real-time performance. However, once that is out of the way use MIX to vary the amount of vocoded signal. Remember that this is the only 4U effect in the DP/4 and so you need to make sure that any modulation signals are routed to all four units if you want the overall sound to be changed. Alternatively, each unit could be modulated independently, perhaps using VOLUME to

create your own mix of the four frequency bands.

Utilities

There are two other algorithms we haven't looked at yet that are very useful for certain situations. The first, Sine/Noise Gen, offers a choice of sine wave or noise generator output (BALANCE controls a mix should you want one), and really comes into its own when using modulation control.

We all know that there is very little you can do to a sine wave, but we do have access to SINE FREQUENCY and this could be swept by modulators for effects use. It could also be used for tuning purposes and to provide an additional source of LFO modulation. You can do a lot more with the noise generator. Filter parameters are provided which can be used to create various sound effects like surf, wind, rain, etc. It can be used as an additional source for a synthesizer which doesn't provide this facility or perhaps to free voices for purely musical uses, leaving the sound effects to the DP/4. Sending the output to other algorithms (try reverbs or delays) provides even more scope for natural and unnatural sound effect creation.

The second utility, as its name implies, is not an effect at all but rather a bypass facility. Exactly what No Effect does once selected depends on the setting of the Bypass Kill parameters of the current config. If the unit containing No Effect is set to Bypass, audio signals will be passed, if set to Kill, they won't. What this gives us is another way of controlling Bypass mode other than the program change map and controller source options within the System MIDI pages. Also, as the Mix and Volume parameters used by other algorithms are provided, No Effect can be remotely controlled by a MIDI source to change the volume of external signals feeding the unit which may not require any effect processing.

And Finally...

Deciding which parameters you want to modulate with which source and by how much, is largely a matter of working out what you want to achieve and then changing values until it sounds right. However, I hope that this series has provided you with a few pointers to guide your way around the DP/4's algorithms, and maybe some ideas for experimentation.

The DP/4 and MIDI articles will continue with a deeper exploration of the MIDI commands and some more ideas for using them. Bye for now! ■

Bio: Steve Byhurst is a British composer of synthesizer-based instrumental music. He is an aspiring soundtrack writer who would love to make a living from the results of using his (mainly USA-made!) gear. Write to him at 1 Oaklands, Oakhill Road, Horsham, West Sussex, RH13 5LG, U.K.

Mixing Down SQ/KS Sequences

Part II

Brian Rost

In Part I, we discussed how a good mix starts with creating the soundstage and how we can use the sequencer and effects processor to manipulate the aural clues for the listener. Now to explore this a little further...

One For All and All For One

Each patch in the SQ/KS synthesizers has an effect associated with it. It's easy to see that with only one effect processor, once we start using more than one track in a sequence there is a potential conflict. For this reason, each sequence also has its own effect. By the way, this effect need not match the effect programmed into any of the single patches within that sequence! We might select a patch like Dirt Guitar and find it sounds a lot more like an organ, because the distortion effect which gives the patch its character is not the effect used by that sequence.

Getting on the Bus

While it would be ideal to have a effects processor dedicated to each track, as is usually the case in pro studios, there is no synthesizer currently on the market with that level of sophistication. It turns out that in the mix some of the subtleties of the effects are lost anyway; the denser the mix, the less important the problem becomes. Basically, the approach is to optimize the effects for the tracks that will be most prominent in the mix.

While there is only one effects processor, there are three effects busses which may be used. In the case of single effects, like the reverbs and 8-voice chorus, both the FX1 and FX2 bus send to the same effect. In the case of the multiple effects, the FX1 bus sends to all the effects, while the FX2 bus sends only to the reverb. The third bus of course is DRY, which sends to no effects.

The routing of voices to the busses is part of the programming of each patch, but it can be overridden for each track at the sequence level. While this may be a bit confusing at first, it is a very useful feature, because it saves us the trouble of going back and customizing the voice routing of a patch for a particular sequence. The options we have are pretty simple: the VOICE option uses the routing programmed into the patch, DRY routes all voices to the dry bus, FX1 routes voices assigned to the FX2 bus to the FX1 bus, and FX2 routes voices on the FX1 bus to the FX2 bus. There is one other option, CONTROL, which is similar to VOICE in that it uses the routing programmed into the patch, but it also routes controllers on that track to the effects processor. I would recom-

mend not using CONTROL on more than one track, as very confusing things can result from conflicting controller data.

It's not too hard to figure out which routing option to use. Consider that in a given sequence, there will usually be one track that really needs a particular effect to sound right (perhaps we need distortion for a guitar patch or rotary speaker for an organ). On that track, either VOICE or CONTROL is appropriate. For the remaining tracks, the routing will usually be VOICE if the same effect is desired, FX2 for only reverb or DRY for no processing (I don't find the FX1 option too useful myself, but it's there if we want to use it).

One Size Fits All

While the routing choice is pretty simple, choosing an effect that will work well with all the patches we are using can be much more complicated. Let's take an example where one track uses a distorted guitar, one a B-3 type organ and one a bass patch. The trouble here is that the guitar track needs distortion while the organ track needs a rotary speaker effect and the bass needs neither. There is a compromise possible, however; if we use the DIST + CHORUS + VERB algorithm, the FX1 bus only applies distortion to voices panned to the left; voices panned to the right are chorused only. So we could choose FX1 for both the guitar and organ track, but pan the guitar left and the organ right. In fact, since panning can be overridden at the sequence level, we can make the panning correction there, rather than going back to the patch and tweaking the pan parameters.

In the above example, notice that we applied chorus, not rotary speaker, as the effect for the organ track. This is a good example of the sort of compromises we'll be having to make. We will see later that phase shifting, flanging, chorusing and rotary speaker effects are quite similar in nature. While each has a distinctive sound, they can often be interchanged. In fact, the patch Today's Organ found on the SQ synthesizers uses the PHASER + REVERB effect algorithm rather than ROTARY SPKR + VERB. As you do more sequencing, you will get a feel for which effect to use. For myself, I find the CHORUS + REVERB often the best match, but it's really a matter of personal taste.

Another limitation that comes up when sequencing is that the send levels for the FX1 and FX2 buses are common for all tracks. This means that if two tracks are both assigned to the FX2 bus for reverb, they will receive the same amount of reverb. This becomes an issue when we want some tracks to have relatively little effect applied and others to have more. In

fact, the gradation is pretty simple: with three busses in the SQ/KS synthesizers, this limits us to three levels of effect (with one level being dry).

Presto Chango

So far we've talked about setting up a sequence with a given effect, but it is also possible to change effects in the middle of a sequence. This is accomplished by sending a program change message with the value 125 followed by a program change selecting a patch. The effect programming for the newly selected patch overrides the current effect programming. When building songs from a chain of sequences, it is also possible to change the effect by having two adjacent sequences use different effects.

In both cases, it pays to be careful: when a new effect algorithm is chosen, the effect processor is temporarily muted. This means there will be an audible glitch in any voices sustaining at the time.

Taking Control

One of the more powerful features of the SQ/KS effects processor is that we can control one parameter of the effect in real time using a modulator. Exactly which parameter is controlled depends on the effect algorithm we use, of course. In general, it's usually best to overdub the modulation after our mix is almost done. This is because as we work on the mix, we will be tweaking various effect parameters, and something that sounded great when we recorded a track may end up getting buried in the final mix.

A Word About Distortion

One multi-effect that deserves special mention is the CM-PRSS + DIST + VERB. There are some important differences in the signal routing in this algorithm, as can be seen in the manual. Voices assigned to FX1 pass through a flanger prior to a compression stage, then the signal passes through the distortion stage and an EQ before reaching the reverb. There is a feedback path which feeds the reverb output back into the compressor. Notice that voices assigned to FX1 will be fed back as well, because the feedback loop is after the two busses are summed at the reverb stage. As a result, unless the feedback is kept at 0, there will be some distortion applied to voices assigned to the FX2 bus.

The CM-PRSS + DIST + VERB algorithm is the best choice for overdriven heavy metal guitar sounds, but the use of the feedback path means we can't effectively use the FX2 bus in most cases. The DIST + CHORUS + VERB algorithm trades off guitaristic pyrotechnics for the ability to get use of reverb on the FX2 bus plus chorusing on the FX1 bus for voices panned to the right. There is still a tradeoff in that panning choices are limited by whether or not the sound should be distorted.

Get Mixed Down, Not Mixed Up

Well, that wraps it up. The secret of a good mix starts with creating the soundstage. We've seen how we can use the sequencer and effects processor to manipulate the aural clues for the listener. Within the limitations of having only one effects processor, we've learned how to choose a compromise effect for our sequence. We've also looked at some of the fine points of using the reverb and distortion effects on multiple tracks.

Whether you are going to record an instrumental album like my friend, or just want to create "virtual tracks" for your four-track demos, you're now on your way to making better, more exciting mixes. ■



Bio: Brian Rost has been spotted around the Boston area playing cajun/zydeco bass with Swampstone recording artists Gator Bait. He still is trying to get their accordionist to go MIDI.

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More Keys To Your Business Success

Jeffrey P. Fisher

When you are a one-person shop, your single biggest enemy is time, or lack thereof. How can you handle all the details that you must attend to and still have time and energy to do your best work? It is crucial that you manage your time effectively. Using your computer helps you be more efficient. And here are a few other tips:

Set goals and objectives. These should be personal, creative, business, and financial goals. Write them down on a piece of paper and put them where you can see them. My goals pop up on my computer screen when I start each day. It's hard to ignore that constant reminder. And when you reach one goal, set the next one. Take a moment at the end of each day to plan your next day and at the end of each week to plan the next week. Don't live day-to-day. Make plans, establish goals and deadlines, and work to reach them. And when you do reach a major milestone, reward yourself for doing so. After completing a major project, I usually buy a book or CD and curl up on the couch for some well-deserved R&R.

Handle your papers only once. Decide what action you must take such as read, file, or destroy. If you are not sure what you should do with it, just roll it up into a ball and make a basket. Score two points!

Discourage time-wasting phone calls and meetings. Get to the point quickly by simply asking how you can help.

Make an agenda for each meeting with a list of expected decisions that must be made. Start with a goal and use the meeting time to accomplish that goal.

Take time each day to manage your main activities. Even just one hour of uninterrupted time each day can make your business easier. Many people don't take calls or schedule meetings for the first half of a day. They use this time to get things done. I use mine to write or compose.

Finish one project completely before moving to the next.



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Though this isn't always easy, it's a good objective. Set a quota by breaking your bigger projects into smaller bits and prioritize each task. When you completely finish one part, move on to the next.

Think positive thoughts. Nothing is ever perfect. Do your best job under the given circumstances.

Say "no" when a project is beyond your skills or beyond your time constraints.

Accomplish little tasks in your spare time, like stuffing envelopes while watching TV.

Take time to relax. A few hours (or days) away from your work make you more efficient and creative. Take a friend to lunch or an occasional long weekend.

How you are perceived by others is very important to your business success. Here are several strategies that will make sure your clients see you as a professional, helpful, knowledgeable, and creative business person.

Use professional business cards and stationery and have all materials typewritten or typeset. Often your stationery is the first contact people have with you so make sure you project your professional image and make a good impression. If this is lacking, your music demo tape won't even be touched! Don't write anything by hand except the occasional note. Check your spelling and grammar. I once received a letter from a composer who used the line: "Where music is at it's (sic) best." I'm sure he meant 'its' which is possessive, not 'it's' which is the contraction it is. Don't make this embarrassing mistake.

Practice your helpful, kind telephone demeanor. Smile just before you pick up the receiver. Your attitude will come across to the other person on the line.

Dress appropriately for meetings. The rule of thumb is to dress slightly more formally than casual. If you're meeting a banker, wear a dark suit and subdued tie; if you're meeting with a production company, a tie and sweater or sports coat is fine. Much as you'd like to, don't show up in jeans and a T-shirt!

Be on time to all meetings. If you are running late, call ahead and explain your delay.

Respond to all inquiries promptly. Mail all promotional materials by the fastest way possible and the same day you get the request. And return all phone calls on the same day, too. Use the remote retrieve option on your answering machine if you'll be away. Even if you don't get the person who called, make sure you leave a message to show that you indeed tried. I often fax notes to people I miss so that the next

day when they arrive at work, my fax is waiting for them.

Always meet your deadlines and do exactly what you say you are going to do. If you tell someone you'll call Friday morning, do it. Should you have to choose between incomplete work and missing a deadline, miss the deadline. Call the client and fully explain the troubles you're having and work to a mutually agreed upon solution.

Be neat and thorough. There is nothing worse than hastily scribbled notes, typos, or missing pieces.

Give far more than anyone expects. If you've just finished a score and mixed it to DAT, make a cassette copy for your client so they can listen in their car. Don't charge for it, just do it to show you are working hard to make them happy with your service.

Listen. Don't dominate conversations. Listen to the full story and then answer in the complete manner that shows you understand the problem and that you care about solving it satisfactorily.

Ask questions. Don't be afraid to ask for more information. If you don't understand something, ask for clarification. It's better to be thorough than to be ignorant. Or worse, make a costly mistake.

Be interested, enthusiastic, and genuine. Make sure your client knows you care. And don't put up some fake facade. Be yourself in a straightforward manner. People reflect what they see in you. If you are passionate about your music, you will excite your clients and prospects, too.

Do your best work all the time. Never hand in shoddy work and never apologize for your work before playing it. Say that this is the best work you've done so far.

If you use these simple techniques, you'll manage time better and improve your business image substantially. And that can't be bad, right? ■



Bio: Jeffrey P. Fisher scores, jingles, and sound designs for business TV, commercials, and film. He recently published the Completely Revised Third Edition of his book CASH TRACKS — How to Make Money Scoring Soundtracks and Jingles. It's \$39.50 postpaid available directly from Jeffrey P. Fisher Music, 8341 Ripple Ridge, Darien, IL 60561, or call (708) 971-1641.

Setting Your Own Standards

Tape: Demo Tape.

Artist: Terry McGraw.

Contact info: 2500 Oak Ridge Dr., Cincinnati, OH, 45237. Phone: (513) 731-2654.

Equipment: EPS-16 Plus, Roland D50, Korg M3R, Yamaha TX7 and TX81Z, Alesis Quadraverb, Mac SE with Passport Pro v. 4.5, a mixer, MIDI patchbay, amp and DAT.

This is a highly listenable demo tape. No attempt at packaging was made, but these eight songs stand on their own. Terry has included five original songs and three covers.

Terry says, *"This is my first attempt at anything like this, so you'll find it perhaps a bit haphazard ("eclectic"). I wanted to try my hand at various genres: MIDI-bop, fusionoid rock, New Age (replete with perfunctory pads, digital marimbas and really breathy flutes), and so forth. It's all sequenced except for FOR NOW, which is in real time. My goal is to produce a tape/CD and market it as a fundraising product for the Children's Hospital where I work."*

White Rap opens this tape to an amusing start. The first sound you hear is the voice of Elmer Fudd, saying "Gweetings music wovers!" This satire of bad rhymes, and the tendency of white folks to try just a little bit too hard in the area of rap really hit home for me. This is also refreshing as a satire because Terry makes you laugh, makes his point and then ends the song quickly.

2 More Weeks follows up with a light jazz/rock beat and a good chord progression on top of which Terry lays some fine jams. The patches used here are typical good quality sounds. Terry's ending puts this song to bed in a tight but fancy space.

Gethsemani lures us in with that breathy sound Terry mentioned in his letter. We are then drawn into his funky digital marimbas that lay out a very open groove which Terry meanders in and out of with his glassy flutes and bells. Percussion is here and there, light and punchy and reinforcing. This is one of those sequenced pieces where the sequence is just so tasty and well done, you are aware that it has to be a sequenced and yet mystified by it at the same time. This piece is the highlight of the tape.

Dragon Child is Terry's fourth original piece features a very wet organ and analog bass. The drum set bangs away on a

cow bell. There are some clever sections where Terry strips the instruments away and adds them back in to create interest. This works fairly well.

Blackbird you will recognize as the Lennon/McCartney song. Terry has trapped us in an elevator for his version. On top of the drums cadence the flutey synth at first plays out the standard tune and then does a bit of improvisation. Instead of giving us another way of hearing this classic song, Terry has merely replayed it on his synth.

Anthropology is a Gillespie/Parker perky, fast jazz tune, with Terry's pick of a rather square wave lead and another analog bass patch. Terry's palette of sounds is definitely a synthetic grouping.

Amazing Grace is faithfully rendered, beginning with a voicey-patch. We are once again subjected to Terry's synth version (and variations). This is "hold" music.

For Now is a mellow electric piano tune. Sad and slow, this chord progression is played out quite beautifully.

Terry's tape ironically would have been much improved if he would have left out all covers and just showed off his own talent. He asked in his letter if he should stick with his day job. Well maybe, but definitely stick to your own music! I would definitely be interested in your upcoming CD. ■

If you want your tape run through the ringer, err, Hacker, just mail it off to: Basement Tapes, *Transoniq Hacker*, 1402 SW Upland Dr., Portland OR 97221.



Bio: Daniel Mandel is a songwriter, sound designer, and has sold pro audio and keyboard equipment and produced demo tapes for local bands.

Change of Address

Please let us know at least four weeks in advance to avoid missing any issues. The Post Office really will NOT reliably forward this type of mail. (Believe us, not them!) We need to know both your old and your new address. (Issues missed due to late or no change notification are your own dumb fault - we mailed them!)

Effectless FX Drum Kit: VFX-SD

Dara Jones [71055,1113]

SD & VFX Prog: EFFECT-KIT

By: Dara Jones

WAVES	1	2	3	4	5	6
Wave	RoomKick	GateSnare	GateSnare	AllDrums	AllDrums	RoomKick
Delay	0	0	30	0	59	30
Direction	Forward	Forward	Forward	Forward	Forward	Forward
Start	0	0	0	0	0	0
Vel Start Mod	0	0	0	0	0	0

MOD MIXER	1	2	3	4	5	6
SRC-1						
SRC-2						
SRC-2 Scale						
SRC-2 Shape						

PITCH	1	2	3	4	5	6
Octave	+1	+1	+1	0	0	+1
Semitone	+9	0	0	0	0	+9
Fine	+10	+10	-10	+10	-10	-11
Pitch Table	System	System	System	System	System	System

PITCH MODS	1	2	3	4	5	6
MODSRC	LFO	LFO	LFO	LFO	LFO	LFO
MODAMT	0	0	0	0	0	0
Glide	None	None	None	None	None	None
ENV1	0	0	0	0	0	0
LFO1	+1	+1	+1	+1	+1	+1

FILTER 1	1	2	3	4	5	6
Mode	3LP	3LP	3LP	3LP	3LP	3LP
Cutoff	127	127	127	127	127	127
KBD	+16	+16	+16	+16	+16	+16
MODSRC	Timbr	Timbr	Timbr	Timbr	Timbr	Timbr
MODAMT	0	0	0	0	0	0
ENV2	0	0	0	0	0	0

FILTER 2	1	2	3	4	5	6
Mode	1HP	1HP	1HP	1HP	1HP	1HP
Cutoff	0	0	0	0	0	0
KBD	0	0	0	0	0	0
MODSRC	LFO	LFO	LFO	LFO	LFO	LFO
MODAMT	0	0	0	0	0	0
ENV2	0	0	0	0	0	0

OUTPUT	1	2	3	4	5	6
VOL	99	86	76	99	99	78
MODSRC	LFO	LFO	LFO	LFO	LFO	LFO
MODAMT	0	0	0	0	0	0
KBD Scale	Zone	Zone	Zone	Zone	Zone	Zone
LO/HI Key	C2/G2	G#2/D3	G#2/D3	D#3/C7	D#3/C7	C2/G2
Dest Bus	Dry	Dry	Dry	Dry	Dry	Dry
Pan	0	0	88	7	91	50
MODSRC	LFO	LFO	LFO	LFO	LFO	LFO
MODAMT	+99	+99	-84	+99	+99	+99
Pre-Gain	Off	Off	Off	Off	Off	Off
Voice Prior	Medium	Medium	Medium	Medium	Medium	Medium
Vel Thresh	0	0	0	0	0	0

LFO	1	2	3	4	5	6
Rate	21	29	29	29	29	29
MODSRC	Keybd	Keybd	Timbr	Keybd	Keybd	Keybd
MODAMT	+99	+99	+99	+99	+99	+99
Level	20	20	99	20	20	20
MODSRC	Wheel	Wheel	Wheel	Wheel	Wheel	Wheel
Delay	0	0	0	0	0	0
Waveshape	Triangle	Triangle	Triangle	Triangle	Triangle	Triangle
Restart	Off	Off	Off	Off	Off	Off
Noise SRC RT	-	-	-	-	-	-

Making music? Are you kidding? Haven't had the time. Too busy programming this fantastic synth to do its fun stuff.

I started out to use repeating envelopes to make a drum loop, *but*, I changed my mind....nothing can beat a real drummer whether using sticks or not. What I came up with instead is a basic drum kit using a kick, snare and all-drum wave. I copied each of them and made slight variations like delaying the 2nd wave slightly to get a mock reverb effect or more pronounced to have an actual delay effect. When using 2 notes on the kick or snare, a mock flange effect can be had as well. All this while leaving your main effects processor open to do other things! I hard-panned (l-r) some of the voices so that the drum seems to move across the stereo spectrum as the delay sounds the second voice. (A great variation for this is to reverse the 2nd wave so that the wave plays front-to-back-to-front while panning.) I also assigned the LFO to modulate the pan even more when using the mod wheel and faster when using the timbre slider. The FX seem to vary from wave to wave. The patch select *0 will turn off all 3-second waves if a dry sound is needed. Hope you enjoy this one as much as I do.

SELECT VOICE

00	1	2	3	4	5	6
0*	1	2	3	4		6
*0	1	2		4		
**	1	2		4	5	

ENV3	1	2	3	4	5	6
Initial	99	99	99	99	99	99
Peak	99	99	99	99	99	99
Break 1	99	99	99	99	99	99
Break 2	99	99	99	99	99	99
Sustain	99	99	99	99	99	99
Attack	0	0	0	18	18	0
Decay 1	24	36	36	0	0	24
Decay 2	0	0	0	18	18	0
Decay 3	0	0	0	0	0	0
Release	0*	0*	0*	0*	0*	0*
KBD Track	0	0	0	0	0	0
Vel Curve	Cnvx2	Cnvx2	Cnvx2	Cnvx2	Cnvx2	Cnvx2
Mode	Norm	Finish	Finish	Finish	Finish	Finish
Vel-Level	0	0	0	0	0	0
Vel-Attack	0	0	0	0	0	0

PGM CONTROL

Pitch Table	Off
Bend Range	**
Delay	x4
Restrike	17
Glide Time	0

EFFECTS (1)

Effect	Large Hall Reverb
Decay	75
FX1 Mix	25
FX2 Mix	25

EFFECTS (2)

Pre-Delay	100
Early Refl Level	9

EFFECTS (3)

FX2 Mode	NormalStereoSend
HF Damping	40

PERFORMANCE

Timbre	99
Release	0

Prog: Dark-Hall
By: Walter Cooper, Latter Sound Productions

Notes: Dark-Hall is one of the VFX sounds that I converted for the SQ-1 posse. Turning the modwheel forward causes another sound to enter.

WAVE				LFO				AMP			
	1	2	3		1	2	3		1	2	3
Select Voice	On			LFO Speed	43			Initial	78		
Wave Class	Breath			Noise Rate	72			Peak	99		
Wave	Vocal Ensemble			Level	03			Break	99		
Delay Time	000			Delay	00			Sustain	99		
Wave Direction	Forward			MODSRC	Off			Attack	20		
Start Index	00			Wave	Tri			Decay 1	50		
MODSCR	Vel			Restart	On			Decay 2	50		
MODAMT	00							Release	61		
Restrk Decay	48							Vel-Level	00		
								Vel-Attack	00		
								Vel Curve	Convex		
								Mode	Normal		
								KBD Track	00		
PITCH				FILTER				OUTPUT			
	1	2	3		1	2	3		1	2	3
Octave	0			Filter 1	2Lo			VOL	82		
Semitone	0			Filter 2	2Hi			Boost	Off		
Fine	0			FC1 Cutoff	078			MODSRC	LFO		
ENV1	0			ENV 2	00			MODAMT	00		
LFO	2			FC1 KBD	-19			KBD Scale	00		
MODSCR	LFO			MODSCR	Wheel			Key Range	-		
MODAMT	0			MODAMT	99			Output Bus	FX2		
KBD Pch Track	On			FC2 Cutoff	000			Priority	Med		
Glide	Off			ENV2	00			Pan	00		
Glide Time	00			FC2 KBD	68			Vel window	000		
				FC1MOD-FC2	Off						
ENV1				ENV2				EFFECTS — 8-VOICE CHORUS			
	1	2	3		1	2	3				
Initial	99			Initial	99			FX-1	50		
Peak	99			Peak	75			FX-2	74		
Break	99			Break	50			Chorus Rate	40		
Sustain	99			Sustain	00			Chorus Depth	22		
Attack	20			Attack	50			Chorus Center	50		
Decay 1	20			Decay 1	50			Feedback	00		
Decay 2	20			Decay 2	50			MOD (Dest)	-		
Release	20			Release	50			BY (MODSRC)	-		
Vel-Level	0			Vel-Level	53			MODAMT	-		
Vel-Attack	0			Vel-Attack	00						
Vel Curve	Convex			Vel Curve	Convex						
Mode	Normal			Mode	Normal						
KBD Track	00			KBD Track	00						

The Hack: Here's a thick vocal pad which only uses one voice. That's 32-note polyphony or 21 for the older SQ's. The modwheel opens the filter, enhancing the sound with an airy timbre.

Bio: Walter Cooper is minister of music at his local church, district minister of music for twelve churches, a music teacher and owns Latter Sound Productions, which markets sounds for Ensoniq products.

Let's maximize this baby! — alternate waves yield some interesting variations. Some of my fav's are Chiff Flute, Vocal Ooohs, Marimba, Sine and 1+2 Harmonics.

Hackerpatch is intended to be a place where patch vendors can show their wares and musicians can share their goodies and impress their friends. Once something's published here, it's free for all. Please don't submit patches that you know to be minor tweaks of copyrighted commercial patches unless you have permission from the copyright owner. All submitted patches are subject to consideration for mutilation and comments by Sam Mims and Jeffrey Rhoads — our resident patch analysts. If you send in a patch, *please* include your phone number. Requests for particular patches are also very welcome.

Pending Hacker-Requests: SQ-1/2 — An "Elton John" Oberheim Bass patch — like in *Rocket Man*.
 SQ-1/2 — Good Electric guitar — similar to Wah-wah on the Korg 01/W.
 SD/VFX — A sitar patch.

ESQ & SQ-80 Hackerpatch

Sam Mims

ESQ-1 PROG: DX-STR

By: Lawrence Greene

	OCT	SEMI	FINE	WAVE	MOD#1	DEPTH	MOD#2	DEPTH
OSC 1	+3	10	28	BELL	LFO1	+01	LFO2	-01
OSC 2	+0	00	00	PULSE2	LFO1	+01	LFO2	-01
OSC 3	-1	11	28	PULSE	LFO1	+01	LFO2	+01

	LEVEL	OUTPUT	MOD#1	DEPTH	MOD#2	DEPTH
DCA 1	60	ON	KBD2	+20	OFF	00
DCA 2	57	ON	KBD2	+20	OFF	00
DCA 3	53	ON	KBD2	+20	OFF	00

	FREQ	Q	KEYBD	MOD#1	DEPTH	MOD#2	DEPTH
FILTER	045	00	20	PEDAL	+18	PRESS	+12

	FINAL VOL	PAN	PAN MOD	DEPTH
DCA 4	45	05	KBD2	+42

	FREQ	RESET	HUMAN	WAV	L1	DELAY	L2	MOD
LFO 1	23	ON	OFF	TRI	00	00	00	WHEEL
LFO 2	23	ON	ON	TRI	25	00	25	OFF
LFO 3	-	-	-	-	-	-	-	-

	L1	L2	L3	LV	T1V	T1	T2	T3	T4	TK
ENV 1	-	-	-	-	-	-	-	-	-	-
ENV 2	-	-	-	-	-	-	-	-	-	-
ENV 3	-	-	-	-	-	-	-	-	-	-
ENV 4	+55	+60	+60	18	00	23	27	63	54	00

	SYNC	AM	MONO	GLIDE	VC	ENV	OSC	CYC
MODES	OFF	ON	OFF	00	OFF	OFF	ON	OFF

	SPLIT/LAYER	S/L PRG	LAYER	L PRG	SPLIT	S PRG	SPLIT KEY
	OFF	-	OFF	-	OFF	-	-

ESQ Patch: DX-STR

by Lawrence W. Greene, East Orange, NJ

The use of the AM function gives this fairly simple patch a thin, rather eerie quality reminiscent of some of the patches from older Yamaha DX instruments. The envelopes are used sparingly to facilitate "Hackerization" by the adventurous. A little reverb greatly enhances this sound.

The Hack

This is a pretty convincing FM timbre. Is that good or bad? I noticed a few things right away that I wanted to tweak, all of them fairly simple. First of all, the release time is extremely long; I found a T4 value (ENV 4 page) of 45 to be more practical. Secondly, the patch was way too soft, so I cranked DCA 4 up to 63. It's still soft, but that's all you get. Lastly, I felt slightly lopsided wearing headphones. Setting PAN to 08 (still on the DCA 4 page) restored my equilibrium.

For a couple of timbral variations, crank the filter resonance up to 31. Then set the cutoff frequency to 73 for a bright, brittle patch with steam escaping in the background, or to 19 for ghost voices.

Bio: Sam Mims is a professional keyboardist and programmer, and the owner of Syntaur Productions in Houston. He currently works with Malaysian pop star Zainal Abidin, and tours throughout the world.

Classifieds

EQUIPMENT

Mirage DSK-8 (metal case) w/700 sounds, SoundProcess O.S. and 6-disk library, MASOS, manuals, sustain pedal, Iguana and Chameleon O.S., MidiCaster O.S. and sequences in MC format. \$475. EPS with 4x Expander, sustain pedal, over 1200 sounds, 400 song/sequences, manuals. \$875. Mirage Input Sampling Filter: \$95. Boss Dr. Synth DS-330 module: \$285. Call 910-674-5725, leave message.

Ensoniq SD-1, 32 Voice. Brand new in box! Full one-year Ensoniq warranty, save BIG \$\$\$\$ only \$1250. Call 808-575-9516.

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ECCENTRIC SAMPLES (Mirage and EPS). Eth-

nic, Ancient Greek, Medieval instruments; Partch creations; Industrial Percussion & more. Mirage demo tape: \$4. EPS demo tapes (Vol. II or Vol. III): \$7 each. U.S. funds only. Demo tapes include disk list. For lists alone, send SASE to: NIGHTWIND Sound, 170 Mar Monte Ave., La Selva, CA 95076.

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ESQ-1 ROM cartridges still available! Only a few left: \$30 and less. VFX, VFX-sd, SD-1 ROM cartridges: \$40 and less. Also, EPS, EPS-16+, ASR-10 samples. Call or write for info. Cesium Sound, 1442A Walnut St., #300, Berkeley, CA 94709. Phone: 510-548-6193, Fax: 510-540-1057.

WANTED

Dear Ensoniq users: I desperately need your help! My name is Zulikan Royce and I'm in a federal correctional institution. I've purchased a TS-10 to keep me sane but the IRS froze my account before I could purchase a sound library. If you have any type of 3.5" floppy (drum sequences, samples, duplicates, junk, anything!) I would be forever in your debt. Mail it to my supervisor: Federal Corr. Inst, c/o Lance Cole, PO Box 4000, Fort Dix, NJ 08640.

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FREE CLASSIFIEDS!

Well - within limits. We're offering free classified advertising (up to 40 words) for your sampled sounds or patches. Additional words, or ads for other products or services, are \$0.25/ word per issue (BOLD type: \$0.45/word). Unless renewed, freebie ads are removed after 2 issues. While you're welcome to resell copyrighted sounds and programs that you no longer have any use for, ads for copies of copyrighted material will not be accepted. Sorry - we can't take ad dictation over the phone!

The Interface

Letters for The Interface may be sent to any of the following addresses:

U.S. Mail - The Interface, Transonik Hacker, 1402 SW Upland Dr., Portland, OR 97221

Electronic mail - GENie Network: TRANSONIQ, CompuServe: 73260,3353, Internet (via CS): 73260.3353@compuserve.com.

This is probably one of the most open forums in the music industry. Letter writers are asked to please keep the vitriol to a minimum. Readers are reminded to take everything with a grain of salt. Resident answer-man is Clark Salisbury (CS). Letter publication is subject to space considerations.

Sub: How do I get sounds *onto* the TS-HD?

Okay, this is my last complaint letter about my TS-12. Really. In fact, it may not even be construed as a complaint - if there is a reasonable answer!

My TS-12 has a read-only SCSI port so I cannot save sounds onto it. Now, does somebody make a combination external floppy and SCSI hard drive, or can someone tell me how to use my computer to do the following: copy sounds from the floppy onto the SCSI which is in turn connected to the TS-12?

The thing I am trying to get rid of is having to load floppies for each session. I don't mind loading them - once in a while - but all the time is a drag. If someone made a device like the above I'd be happy until Ensoniq wises up and puts some sort of file transfer capability into the TS-12.

The diagram below indicates what I wish to do:

```
+-----+
|FLOPPY-->SCSI HARD DRIVE| <--TS-12
+-----+
(single space rack mount case?)
```

Copy Sounds/ Seqs to HD	Read Sounds/ Seqs from HD
----------------------------	------------------------------

Suntower Systems
CS: [70242,1520]

[CS - As you've discovered, there's no way to directly save data from your TS-12 to a hard drive. You don't specify what computer you use, but if it's an IBM compatible machine, it may be possible to use one of Gary Giebler's utilities to save your Ensoniq data directly to a hard drive. Contact Giebler Enterprises at (610) 933-0332.]

[Ensoniq - Sorry this is a read-only port for use primarily with CD-ROM libraries.]

[Gary Giebler - Although our Ensoniq Diskette Manager now has the capability to read Ensoniq's CD-ROMs on an IBM-PC, the ability to read a SCSI hard drive is not available yet. Watch the Hacker News.]

Dear Interface

I own an Ensoniq SQ-R Plus rack module

which has one major drawback and I was wondering if there is a cure. The displays on the SQ keyboards are fantastic blue neon fluorescent type units which are easily readable from any angle in any live situation with dim lighting and difficult angles. I have my SQ-R in a rack but can only read the display if I am seated above the unit. When I bring the rack home to the studio and put it on the desk the display is unreadable from all angles but above. Why was the same type of neon display not used and can one replace this green LCD display with something better and if so how and with what type of unit?

Many thanks,
Dean Brewer
Johannesburg, South Africa
dean.brewer@digitec.com

[CS - The display in your SQ-R is designed specifically to be read straight on, or from somewhat above the unit. Unfortunately, there's no practical way to replace your display.]

[Ensoniq - The VFDs (Vacuum fluorescent displays) used in our keyboards are significantly larger and more expensive than LCDs (Liquid Crystal Displays) and require high voltage circuitry to operate them. They simply won't fit in a single-high rack unit. Incidentally, the SQ Series keyboards use the same type of LCD display, not a VFD display. These displays are only available in top view or bottom view models. This is true of most of our competitors LCD displays as well.]

Dear Hacker,

Seems to me as if I were "the man from Germany" who reported some errors with the ASR-10 while deleting wavesamples. That's why I'm writing again...

This is what happens. When I'm using about five to eight instruments at a time (and most of the ASR memory is in use), it sometimes happens that deleting one particular wave-sample turns out to delete the whole instrument layer. What am I doing? Well, the instruments consist of several layers (with stereo link layer usually turned on) and I select the desired layer and sample to delete. Then I select the DELETE WAVESAMPLE command and let it run. When I go back to the instrument page, the only thing my display shows is the selected layer with an

asterisk (*) where formerly the numbers of my wavesamples had been displayed - and everything's gone.

In my opinion, this error only occurs when the memory of my ASR-10 is somehow scrambled, because everything works fine when I'm loading the same instrument with no other or only two or three more instruments. Sometimes it also works fine when I've booted up my ASR again with all the same instruments loaded afterwards. Funny, hmm?

Fortunately, this appears very rarely with the new O.S. 2.0 - but it still happens and probably could be corrected in a later O.S. release.

One thing I'm doing right is to save all instruments before deleting single wavesamples, especially when memory is nearly full. This might take a little time but keeps me from jumping out of the window when my new crispy and never-heard-before sound has gone to bytes-heaven!

By the way, I'd like to give a short comment on a reader's letter concerning trouble with Ensoniq products. I started off playing synths with an Ensoniq ESQ-1 and later an SQ-80. Both pieces of gear have worked fine and nearly without errors. My problems with Ensoniq started with the VFX-sd I bought. It sounded great but never worked! After lots of updates I've been so disappointed that I swore never to buy Ensoniq gear again. That was then - now I own an ASR-10, like it very much, and really want to buy more Ensoniq.

Why? Well, I've found out that a lot of synths have some OS-bugs out there. For example, Korg's Wavestation drove me mad when transferring sysex data. Once it stuck, the other time it deleted whole sound banks (before I had a chance to save, of course!), and later it displayed an error window. A friend of mine still has trouble with the Wavestation A/D displaying strange parameters and sometimes playing no sound after being powered on for a few minutes.

And it was difficult getting any updates or even information from Korg concerning these bugs. It doesn't compare with Ensoniq who gives us all their latest information in the *Hacker* and stays in close contact with their customers. (Hmmm, I'd still really like to get an Akai-loading feature sometime.)

This experience made me change back to En-

soniq and now I recognize that sometimes things are not as bad as they first appear.

Bye 'till next time!
Thomas Bleicher
The Sunny Lake of Constance, Germany

[CS - The problem you describe is a known bug, and has been addressed (along with several other issues) in the latest OS release for the ASR, OS 2.51. You should be able to obtain a copy from your local dealer.]

Greetings Interface and fellow Hackers,

I'm writing in response to a tiny piece of the Ethereal Pop library review by Steve Vincent. While the review was very informative and well organized (typical for the *Hacker*), I found Mr. Vincent's characterization of FM synthesis to be, well... puzzling. Steve states, "Leave the wheezy, cheesy sounds to the digital FM synths." If FM is wheezy and cheesy, why did sample playback synths from Ensoniq and PPG include FM waveforms? As for sampling FM drum sounds, *Electronic Musician* published an article entitled, "Powerful Percussion with FM Synthesis" (May,

1988) that hinted at some of the unique drum sounds that FM can produce. My sampler has feasted heartily on FM for years, and I still feed it FM drums, percussion, and synth sounds. FM is a viable source for lots of cool sounds.

That's my two cents - different strokes, I guess. Anyway, thanks to the *Hacker* for a great magazine (and reviews)!

Sincerely,
Todd Spear
Houston, TX

[TH - Well, we try to include these valuable clues (at no extra cost) so at least you know where Steve's coming from.]

Dear Hackerfolk All,

On page 98 of the July, '94 *Electronic Musician*, please find the second paragraph and note the author's statement... "More recently, Ensoniq has turned away from giving new names to synthesis technologies. Huzzah!" (I guess I will get over not knowing what "Huzzah" means.) I'm thinking that the author, Mr. Scott Wilkinson, has bestowed good compliment upon Ensoniq in implying that the firm will engage in no technohype. Megamorpho-marvelous, don't you think?

A few questions: Sometimes I like to load a sequence without any instruments on board. When I look to see what tracks are active, I'm S.O.L. This is certainly not important to me, but I like to start out with a clean slate sometimes, picking my instruments according to the alignment of the Earth with Uranus. Am I correct in assuming that I should continue to keep little notes for what-goes-where if I don't wish to build banks for these short sequences?

Having read Garth's eloquent and informative article on event editing (Issue #106), I can't seem to get the DELETES to work as a trim function within the sequence. I don't really have the acumen to count bar, note, and certainly not clocks in my head, but I can hear the notes I want to delete. I want to trim the entire sequence so that the loop will "back up" one decrement. Often this is a "note off" timing error when I fail to stop the sequence precisely between release of the last note on the keyboard and hitting the stop command on the transport. How can I move the stop command within the datastream?

The '16+ is a fine instrument and I am still enraptured in my explorations of it. Stay tuned.

P.S. Who did the most excellent Nylon Song demo on ED-010?

I'm back out and quiet,
J. D. Ryan
Ocean View, DE

[CS - If you absolutely refuse to create banks, then yes, take notes. However, you might want to create a dummy bank containing 8 Instruments with no samples or layers (press Command, then Instrument, scroll until you see CREATE NEW INSTRUMENT, and hit Enter/Yes). Such a bank would take only a few blocks of disk space and could be saved along with any of your short sequences.

Using the DELETE command to remove unwanted data from a sequence will remove the data in question, but it will not change the timing or length of the sequence. To add or remove measures from a sequence, use the CHANGE SEQUENCE LENGTH command, located in the Command-Seq/Song menu.

I don't know who did the Nylon Song demo on ED-010, but you should have received a sound manual for all the sounds that shipped with your unit (of which ED-010 is one). If not, you could contact Ensoniq Customer Service (610-647-3930) directly to request a copy.]

[Ensoniq - Thanks for your compliments about the ED-010 NYLON GUITAR demo. The guitar, played by Paul Jackson Jr., was sampled, programmed, and sequenced by Scott Frankfurt.]

Hello Transoniq Hacker.

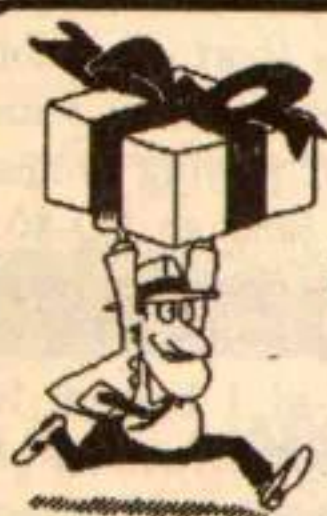
I have a friendly word of warning to pass on to your readers. I have been having trouble procuring an order I made with a company named in one of your third-party user lists.

I placed an order for some public domain samples from NOT (Neanderthal Organization Techniques, PO Box 1185, Hillsboro OR 97123).

We're now coming up on two months and still no disks, no letter - no nothing! Repeated attempts on my part to contact NOT have all failed.

I like to give the benefit of the doubt, especially since I have done business with this company in the past - with complete satisfaction. But given the current circumstances I can only assume the worst.

I'd strongly suggest that *Hacker* readers hold



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up on any orders to this company until further notice. And if anyone out there has any info regarding the fate of the NOT company please drop me a note.

R S Landry
P O Box 164
Tuxedo, NY 10987

[TH - Thanks. Actually, we had a very similar letter in Issue #109 - too late for you, however. Readers take note.]

Dear TH,

I have owned Ensoniq equipment since 1987 and have subscribed to TH about as long. I own or have owned Mirages, an ESQ-1, SQ-80 and now a TS-10. Not once have I had a problem. Therefore I am surprised at how many people complain about their Ensoniq products and their malfunctions. I must agree with your commentary that an immediate call to Ensoniq would settle most problems, but I would also suggest that the dealer must take some responsibility to satisfy the end user with an exchange of goods, or better yet, "burning-in" a product before the end user

takes delivery. This may account for the high rate of "off shore" goods which may get a second test when they arrive in the states. This is only conjecture on my part as I have no facts to support this claim.

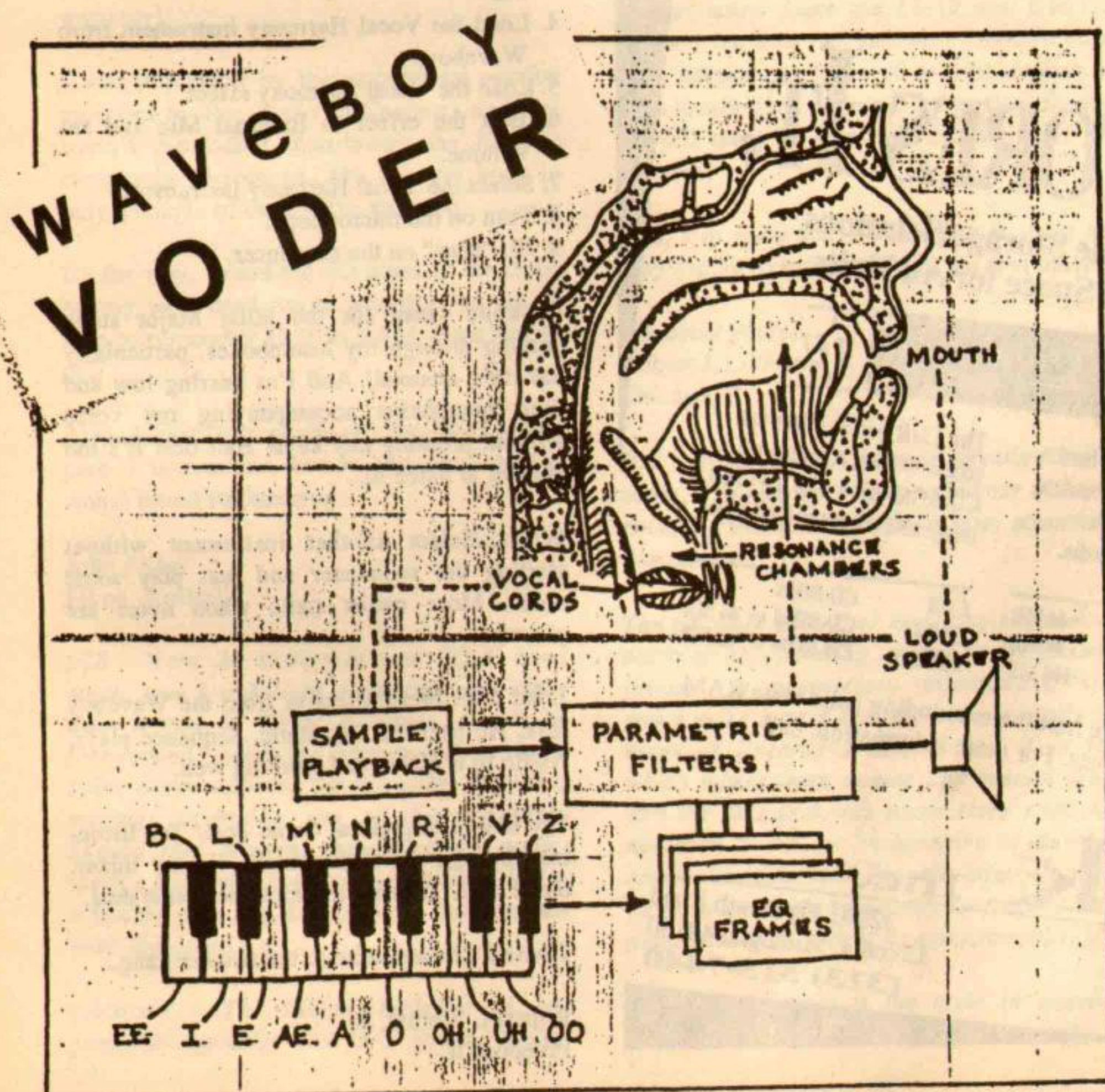
In the same vein, I wonder how many of these complaints come from PC operators. Those of us who use computers are painfully aware of the need to protect against voltage surges and spikes. Therefore it only stands to reason that our keyboards must be equally protected. I don't contend that quality problems should be masked by power conditions, but when was the last time anyone scoped the TWO outlets that supply all the power on stage at your local dive. Could be scary.

I don't know if this pertains to anything, but I also own a Fatar Studio 90 with what I have been told is the same action as the KS-32/TS-12. I recently noticed a knocking noise on some of the keys when I struck them hard and while I was repairing the power supply, I also noticed some small pieces of white plastic inside the case. It seems that the "hammer" has a tab that serves as the stop when it bottoms out into a rubber cushion. The tab is reinforced on the side of the striking surface but

not on the back of the tab where it takes the stress of the impact. When a hard key stroke sends the hammer into its stop, the tab shears off at the base of the brace. This does not impair the feel of the action, but it allows the hammer to travel higher, striking the underside of the key above it, thus the knocking noise. If this action is indeed the same, perhaps Ensoniq could inform Fatar of their design flaw. This condition may also occur when the keyboard is transported standing on the back edge while experiencing road shock.

Speaking of Fatar, I know Ensoniq has used Fatar keys and cases for some time but I would be curious to see an article telling the history of their relationship. Could there be a TH article here?

Okay - here is the wish thing. I own a Roland U-220 and chose it because I could insert a PCM card with new samples. I bought the TS for the same reason. It would be nice if Ensoniq's next SQ-like product had a similar feature. This would give Ensoniq an expandable low-priced product. I know the cards are relatively expensive compared to disks, but they are more rugged and easier to load.



WILD VOCALS AT YOUR FINGERTIPS!

The Voder synthesizes vocals out of any sampled sound. It can sound like a vocoder, but there's never been an effect like this for any other keyboard. The lowest 16 keys of the keyboard each trigger a different vowel or consonant. Your left hand actually forms words by "spelling" them. (OK, it takes some practice to sing a whole sentence.) Your right hand controls the notes and chords of your robot choir. And how long have you been waiting to make a big fat breathy choir sing "Louie Louie?" Or maybe it was a car crash snare that you needed to say "mom!" Need details? The Voder is a 3-band parametric EQ effect for the Ensoniq ASR-10 and EPS-16 PLUS. This EQ can rapidly "morph" between many different settings. These different settings impose vocal characteristics onto any sound that is run through the EQ. It's much cooler than a Morpheus. Audio-in is supported. The Voder disk is \$49.95 and comes with sounds: a choir, a solo voice, a robot voice, a talking rhythm loop. Order by MC/VISA by calling (215) 251-9562 or send check or money order to WAVEBOY Industries. P.O. BOX 233, Paoli, PA 19301 USA. (Price includes shipping but add \$6 outside US/Canada. PA residents add 6% tax.)

**WAVEBOY
INDUSTRIES**

I know Ensoniq has been mostly a sample-based synthesis company, but I would still like to see something new, like physical modelling or similar wave creating stuff.

Would it be possible to create an algorithm to allow both rotary speakers in the TS dual rotor effect to be varied in speed at the same time? A Leslie with dual rotors really makes THE B3 sound.

And my last and ever present wish. Does anyone have a schematic of the VMI memory kit for the Mirage. Ensoniq must have had to approve some of this thing to not void warranties. I just want to know what makes it tick and how to make mine work correctly. Mail copies to my address if you know of any such thing. I will be ever grateful.

Thank your staff for continuing to give us users an unbiased forum. And thank you, Ensoniq, for creating and listening and recreating what I still consider the best products for the money.

Dennis Hoffer
Elkhart, IN

[CS - One of the oddities in doing a column like the Interface is that you hear from way more people with problems than you do from people without. Unfortunately, this can create the impression (if you read the Interface regularly) that there are thousands of Ensoniq customers who have difficulties with their equipment. The truth is, there are actually very few people who are having real trouble with their gear. It's just that, since they've all written, it seems like a lot more.

As far as the Fatar goes, I don't really know if the mechanism you describe is the same as the one used by Ensoniq, but I can tell you that this is the first I've heard (if memory serves) of any sort of mechanical problems with Ensoniq's weighted action keyboards.

As for VMI, they are long gone, and my understanding is that Ensoniq never checked out or approved any of their products. Perhaps one of our readers might have an idea about where to get schematics (or other helpful data) for your VMI kit; readers?]

[Ensoniq - 1) The problem you described with the Fatar keyboard was resolved in late 1992, as a result of Fatar and Ensoniq work-

ing together. Both Fatar and Ensoniq have benefited from this collaboration (the KS-32, TS-12, KT-76).

2) Perhaps what you are referring to is the IVM Expander. Unfortunately, we do not have schematics to the IVM Expander.]

Hi Gang!

I need a little help out here. I bought Waveboy's Audio In Effects Disk and I am having trouble with the Vocal Harmony effect. Bill at Waveboy has been very helpful and sent a new disk but my problem persists. As I do not understand much about the inner workings of the black box, can someone explain what might be going on?

I have an EPS-16+, purchased new, not used. To eliminate some of the "Have you..." questions, here's what I do:

1. Load OS 1.3 from either Waveboy's disk or the Ensoniq disk (problems appear with both)
2. Load a bank of instruments which includes a song.
3. Route all non-audio in tracks to output Bus #2.
4. Load the Vocal Harmony instrument from Waveboy.
5. Load the Vocal Harmony effect.
6. Edit the effect to External Mic and set volume.
7. Select the Vocal Harmony instrument.
8. Turn on the microphone.
9. Hit "play" on the sequencer.

Lookout! Head for the hills! Major static coming through my headphones, particularly the right channel! And I'm hearing low and high munchkins accompanying my voice without pressing any keys! Bail out! It's too painful to listen to.

Whew...Select another instrument without starting the sequencer and just play some notes. More major static when notes are played.

Load a different effect in from the Waveboy disk. No problem. No static. Sequence plays. Audio in is active and working well.

Try new headphones. Same deal. Try listening through the main output vis my mixer. Same deal. Try new microphone. Same deal.

Guess I'd better write to the Hacker gang...

Robert L Wertz, Sr
Freeport, IL

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[CS - I'm afraid I have no insight into your Waveboy troubles, but we'll pass your letter along to the Waveboys and see if they can't shed some light.]

[Waveboy responds - I suspect you are a victim of the dreaded multi-track effect modulation. Every track on the EPS/ASR will send note-on and note-off events, as well as controllers, to the effect modulation machine - unless - unless you manually disable them. To do this, set EFFECT CONTROL=OFF for each track in your sequence. The 3V HARMONY effect is particularly vulnerable because it tries to dynamically assign its three voices to every key-down it hears about.]

Hello Hacker,

What a great magazine you guys put together. I have noticed a lot of scuds sent flying toward Ensoniq in the last few issues of the *Hacker* so I thought that I should send a positive note in to balance it up a bit. My scene is this - I compose mainly classical music but also produce backing tracks for all types of music. I have a Yamaha SY22 and Ensoniq SQ-1 Plus which has performed faultlessly until recently when it displayed the dreaded "Battery Low" message. The SQ was only 11 months and 2 weeks old (i.e. nearly out of warranty).

I was impressed by the exceptional service provided by Pro Audio in Canberra and Ensoniq's Australian distributor, the Electric Factory in Melbourne. My SQ was back in only a couple of days, alive and well.

By the way, would the SQ actually die if the battery were dead flat or would it just not be able to remember stuff in RAM when turned off?

Also, I have just purchased the ISC2 sound card - impressive sounds and very professional sound engineering.

John Allen
Flynn, Australia

[CS - Were the battery in your SQ to head south, you'd only lose programs and other data stored in RAM. However, you'll be forewarned - when the battery voltage drops below a certain level, the SQ wakes up with a message informing you of this condition. Should this happen, though, don't panic; there's still quite a number of hours of life in a battery once the "low battery" message has been displayed.]

[Ensoniq - The lithium batteries in our products typically last 3-5 years. Unfor-

tunately, it is very difficult to track how much time has passed since the unit was manufactured and when it was purchased.]

Dear Hacker,

This is the third time I'm writing you and I still haven't received an answer to my original question. Ensoniq took up so much time explaining their reasons for not supporting SMF that they apparently forgot the original question. Please ask them to answer it for me.

Issue #109 question: "In your Issue #107 response to my letter you misunderstood my question about Sysex documentation. I have Ensoniq's Sysex spec V2.0 for the TS-12. On page 15 of that document it says, Note: The sequencer data format is not currently documented, so these blocks are only described in general terms. My question was why isn't the sequencer data format documented? And, for that matter, why isn't the format of your floppy disks documented? If we know both pieces of information we could write programs to convert SMF to Ensoniq and vice-versa."

And, even though I risk them forgetting the original question again, I have one more based upon what I learned from the last *Hacker* issue. Since the TS-12 new GM OS release requires a hardware modification what happens to those of us who decline to have it installed? No more OS updates for us? Or will there be two running strings of OS releases?

And, I'm sorry but I can't help it, why did they decide to support GM in the first place?

Sincerely yours,
Robert J. LoSasso
Chicago, IL

[CS - While I can't answer directly for Ensoniq, I've heard the answer to your question enough times to know that it goes something like this:

The software code that makes up the various parts of an operating system in an Ensoniq product is proprietary information. One could make a case that the code is really the heart of Ensoniq products, and it is this which makes them unique and special. This, and the fact that this proprietary code has not been trivial or inexpensive to develop, are the reasons that Ensoniq does not make its code available (after all, does Apple computer give away any of its computer OSs?).

Additionally, even if the code in question were old enough to no longer be worthy of

protection as a trade secret, Ensoniq hasn't the staff or resources to put together usable publications documenting the code, nor do they have the personnel required to support developers who might have problems attempting to utilize the code.

As far as I know, the same OS can be used with both instruments - those with the GM upgrade, and those without. Ensoniq will continue to support the TS-series, no matter whether you have the GM upgrade or not.

And the reason Ensoniq decided to implement GM in the TS-series is the same reason that they decide to commit resources to develop any technology; they felt that it would broaden the appeal of the product, thereby attracting more customers, thereby encouraging sales of the units, thereby making more money. If everything works out according to plan, the amount of additional money made is actually greater than the amount spent developing the technology, thereby resulting in profits. Ultimately, if enough profits are made, the company could possibly stay in business, thereby creating new technology, in the hope of making more profits, and so on.

250MB Internal Hard Disk for your ASR-10

Do you wish that your ASR-10 had a built in hard disk like your notebook computer? Imagine having high speed access to all of your sample/sequence data onboard your ASR-10 with no external boxes, cables, terminators, etc.

Wish no more. It's here! We have developed a 250MB Internal Hard Disk Kit for the Ensoniq ASR-10 keyboard.

- Works in any Ensoniq ASR-10 equipped with the Ensoniq SP-3 SCSI interface
- Easily installed in approximately one hour with only a Phillips screwdriver.
- Can be easily removed should your ASR-10 ever require factory service.
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So you see, it's really a vicious cycle.]

[Ensoniq - 1) Clark's response about the software code being proprietary information is absolutely correct.

2) In regard to the GM OS release, there will not be two running strings of OS releases. The TS-10 and TS-12 keyboards have EE-PROM-based operating systems, not floppy disk-based operating systems. You may decline on getting the GM OS upgrade, but any future upgrades and enhancements would still require the same hardware modification. Two parallel OS releases would just be too difficult to maintain.

We implemented GM in the TS Series as an added value. Remember, we are an international company, and GM has a much stronger demand in Europe than it does in the USA (at least for now). Beside, somebody needed to make a decent sounding GM sound set.]

[Gary Giebler - TH has already published articles on Ensoniq's diskette formats and on the sequencer format. Contact TH to see if back issues are available. Also, programs to convert sequences to/from standard MIDI

files for Ensoniq's keyboards (including the KT-76) are already available from Giebler Enterprises. See the Hacker Booteeq for more information.]

[TH - The issues Gary refers to are #73, #74, and #75. There's still a couple copies left.]

Dear Hacker,

Thanks for an informative magazine.

Several months ago I decided to sell my SQ-R Plus and an older sampling keyboard and buy a TS-12. I thought that I would be able to sample on my direct-to-hard-disk recorder, transfer the wave data to my TS, edit it and save it to floppy. I was seriously disappointed.

I'm using an Amiga with Sunrize's AD516 digital recorder. I've been in communication with Dissident Software in Syracuse which has Amiga software that will transfer my samples via MIDI to an EPS and many other samplers and sample playback synths. Amidi systems in Vancouver has software which will transfer samples over SCSI to many

non-Ensoniq samplers.

In general I like the TS but I question its value for my purposes without the ability to receive samples from my Amiga. Do you know any way to get around this limitation in the TS or if Ensoniq is planning to add this feature in a future upgrade? If it makes any difference, I have a PC compatible 286 built into my Amiga and access to an older MAC and 386.

Joe Granese
Norristown PA

[CS - You cannot directly transfer samples to the TS-12 via MIDI or SCSI (I hope your dealer didn't lead you to believe otherwise). The only possible work-around I can think of (and it's a long shot) is to see if one of Gary Giebler's utilities might allow you to convert your sample files into ASR format, and allow you to save this to Ensoniq formatted disks. Contact Giebler Enterprises at (610) 933-0332.]

[Gary Giebler - Tim Dorcas has a program available to convert sound files into our EDM format. Using our Ensoniq Diskette

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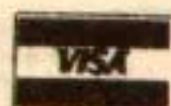
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Manager, you could read/write the converted files to floppies and load them into the TS-12. It's a round-about way to get there, but it'll get your samples into the TS. TH published Tim's address and phone number a few months ago...]

[TH - Tim mentioned his SoundVert program in a letter in Issue #107. Actually, what he gave for publication were some BBS numbers and his e-mail address: tim.dorcas@enest.com.]

Dear TH,

Great publication you have going! In reference to Clark's response in the May '94 issue to LA Spencer's letter concerning the TS-12 versus the KS-32 grand piano sound, I agree with Mr. Spencer. The "canned" Grand Piano patch on the KS-32 does sound better than the "canned" patch on the TS-12. I also agree with Clark that if you tweak the TS-12 piano patch, it could sound like the KS-32 patch. However, not having access to the KS-32 patch parameters makes the hacking difficult at best. Could the Hacker please publish the canned KS-32 grand piano patch in the Hacker and leave it up to us hackers to figure out the conversion to our own non-KS-32 machines? I believe publishing the patch is a great place for TS-12 owners (and even SD-1 owners) to start on a great sounding grand piano. What do you think?

Delaware Dave
Newark, DE

[CS - Hmm...this sounds like a job for *HACKERPATCHMAN*! How 'bout it?]

[TH - Gotta get an okay from Ensoniq on this one...]

[Ensoniq - GO HACKERPATCHMAN! GO!]

Dear sirs:

I notice that I'm down to two remaining issues on my subscription, so I guess that it is time to send more money. Although, there hasn't been much written in the Hacker about the TS-10 (my machine, by the way). I'll subscribe for another year with the hopes that your sheet will have more of interest to me next year.

I'm a real novice at programming waveforms, although I played a DX previously. Like many, I relied on the many cards that were available for the machine.

Reading the Hacker gives me the impression

that you address people with a lot more experience with Ensoniq keyboards than I have. When articles are written about programming voices for the TS-10, they leave me feeling like a freshman who has just wandered into a grad student class. Consequently, I have not gotten much out of the Hacker thus far. I keep hoping for better times though.

If you have information about where I can get books or video tapes containing basic instruction on programming voices for the TS-10, I would appreciate receiving it from you. I find the manuals that came with the keyboard sketchy and tech-word-dependent. Dummies like myself don't really understand what they are saying.

I have a library of EPS sample sounds that are neat but I find having to shuffle through a bunch of disks to load up some sample sounds that I want to use each and every time I turn on the keyboard to be a real pain in the ass. I have maximized the size of my sample bank memory, but that doesn't get rid of the reloading problem. I'm seriously considering the purchase and installation of a scuzzie and CD drive, if it would include software by which I could specify a pre-determined list of samples to load. If I have to go through a list of directories and pick out samples here and there to load, I wouldn't gain much other than not shuffling stacks of floppies.

Oh well. Maybe I expect too much.

Sincerely,
A.L. Deb Puddy
Twin Falls, Idaho

[CS - Ensoniq may have publications or instructional videos that you might be interested in; you could get in touch with them at (610)-647-3930. You might also find useful information through Mix Bookshelf (800-233-9604) and Covert Videos (800-687-1607). Also, yours truly will be published in an upcoming issue of Electronic Musician on the topic of programming Hyperwaves for the TS-series; watch for it at your local newsstand in a month or two.]

[TH - Also, Robby Berman's going to have another article on Hyperwaves - probably next month.

Several of our articles have step-by-step instructions for tweaking patches or entering new ones. It's generally a good idea to just mechanically follow through a few of these - even if you don't know what you're doing or why you're doing it. Each time through, you'll find a few more things sound familiar and start to fall into place. It'll happen.]

[Ensoniq - With an SP-4 SCSI kit installed, and a CD-ROM drive connected, the Auto-Load feature (software version 2 and higher) would allow you to load a pre-determined list of samples, simply with the press of one button (assuming that the sampled sounds are from the same CD-ROM). The Auto-Load feature remembers the name, source disk(s), file path, and Sampled Sound Bank location for each of the Sampled Sounds.]

Subj: More Internet Resources.

Here are some other resources available for readers of Hacker.

Note: the latest (and more complete) version of this file is available from the ftp.cs.ruu.nl archive as MIDI/DOC/archives and on the various news.answers archives. This archive also contains a lot of MIDI music and programs.

The archive is available with ftp from ftp.cs.ruu.nl [131.211.80.17], directory MIDI. Also by a mail-server - send mail to mail-server@cs.ruu.nl with the following contents:

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Note: specify a correct address (e.g. user@host.univ.edu or user@host.BITNET)

Piet van Oostrum, Dept of Computer Science, Utrecht University, Padualaan 14, P.O. Box 80.089, 3508 TB Utrecht, The Netherlands. Uucp: uunet!mcsun!ruuinf!piet. Internet: piet@cs.ruu.nl.

A large collection of midifiles can be found on wuarchive.wustl.edu, in /systems/ibmpc/ultrasound/sound/midi/files. Some of these files are specific for the Gravis Ultrasound card but most are also usable for other synthesizers.

There is an FTP archive at ftp.ucsd.edu [128.54.16.7]. It contains a.o. MIDI files, patches and a few programs. See the directory "midi." This archive looks rather out of date, by the way.

louie.udel.edu [128.175.1.3] has patches, samples, sequences and software in "pub/midi/."

Maybe your question has already been answered —

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Ever hunt through that old stack of *Hackers* looking for that reference to Bernoulli drives — somewhere in the letters column? By using the Back Issue Index you can usually find the article you're looking for — but letters are different. Well, lucky you, here's your solution — electronic files of raw text from the last four years' worth of letters columns — all ready to be pattern searched for whatever you want. (DOS formatted, 720k, 3.5")

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1993 (Issues #91 — #102), 416k

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oak.oakland.edu [141.210.10.117] has EPS/EPS-16+/ASR samples in /pub/eps/samples. More EPS info is in pub/eps/docs/. There are some programs for the EPS in /pub/eps/utills. See pub/eps/docs/utills for info. Feel free to access oak.oakland.edu using Gopher (gopher.acs.oakland.edu, port 70) or WWW (Mosaic/Lynx URL: http://www.acs.oakland.edu).

qiclab.scn.rain.com in /pub/music contains various conversion programs.

Cakewalk files can be found at nic.funet.fi [128.214.6.100] in "pub/msdos/sound/cakewalk" and also on ucsd.edu.

There are several MIDI programs for MS Windows in ftp.cica.indiana.edu:pub/pc/win3/sounds.

OS/2 programs can be found on ftp-os2.cdrom.com [192.153.46.2]. Directories /pub/os2/2_x/mmedia and /pub/os2/2_1/mmedia contain the bulk of the MIDI-related files for OS/2. (There is a specific ftp site for OS/2 multimedia in the formative stages right now, but it is not yet in operation.) For a full index of OS/2 files at that site, retrieve /pub/os2/00index.txt. Submissions may be placed in /pub/os2/incoming.

castrovalva.gsfc.nasa.gov [128.183.33.197] contains some Macintosh stuff and the EMUSIC-L mailing list archives. mac.archive.umich.edu [141.211.165.41] has a midi archive in mac/sound/midi.

Amiga users can get some things by mail from mrcserv@janus.mtroyal.ab.ca (send a HELP message first).

There is a listserv containing e-music related stuff at American University. Send a message to listserv@auvm.bitnet containing the line: get emusic filelist.

Computer Music Journal Internet Archive and World-Wide Web Home Page: mitpress.mit.edu:/pub/Computer-Music-Journal and ccrma-ftp.stanford.edu:/pub/publications/cmj.

MAILING LISTS:

NOTE: The addresses mentioned are those where you can subscribe or get info about the list. The lists themselves usually have the name without the request if that part is present, or LISTNAME@HOST if the command to subscribe is SUBSCRIBE LISTNAME sent to LISTSERV@HOST.

Alternate Tunings — LISTPROC@VARESE.MILLS.EDU, message: A blank line followed by: SUBSCRIBE TUNING <Your Name>.

Analogue Heaven — analogue-request@mag-nus.acs.ohio-state.edu.

Cakewalk — LISTSERV@LISTS.COLO-RADO.EDU, message: SUBS CAKEWALK <your full name>.

Cubase — cubase-users-request@mcc.ac.uk.

Notator (EMagic's) — Fokke de Boer <Fokke.de.Boer@rivm.nl>.

Ensoniq VFX — vfx-request@digibd.com.

EPS — eps-request@oak.oakland.edu, Message: subscribe.

SQ-x/KS-32 — ks32-request@cygnus.com.

P.S. — I really enjoy the SQ/KS-32 list. I forgot to put in there that a nice KS-32 sound editor/sysex utility for Windows was developed by Erwin Petter. It can be ftp'd from ftp.saar.ed in pub/midi/ks32, and from winftp.cica.indiana.edu in pub/pc/win3/sounds. The filename is ksedit02.zip.

Sincerely,
Bob Sturtz
INTERNET:bsturtz@leo.nmc.edu

[CS — Thanks a million, Bob! Write again!]

Hacker:

Subj: KS-32 with Cakewalk for Win 3.0.

Just some information for users of Twelve Tone's Cakewalk for Windows Pro. 3.0 that just came out. If you try to change patches using the new Bank select feature, you're going to have problems with the Ensoniq KS-32 unless you fix some things.

The KS-32 will respond to controller 0 and 32 which CPW 3.0 considers "normal." However, the MASTER.INS file has the entries for INT and ROM backwards. The SQ-1 MIDI spec on page A-9 gives the correct Bank select codes of 0=INT and 1=ROM. Just edit the MASTER.INS file and swap the names. The individual instrument lists for INT and ROM are correct for the factory defaults, as far as I can tell.

Jim Abernathy
CIS: 76316,227

[CS — Thanks for the tip!]

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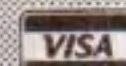
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