The Independent News Magazine for Ensonia Users

#### Taming a Digital Monster OVIEW Patch Editor/Librarian for the VFX

Justin Dune

For: VFX and VFX/SD.

Product: OVIEW/VFX, Patch Editor/Librarian.

Price: \$169 list.

From: Turtle Beach Softworks, P.O.Box 5074,

York, PA 17405. (717) 843-6916.

So there's this theory, see, that maybe synthesizers are getting too complicated.

I mean, in the dark ages everything that could change had to be changed with a knob on the front panel of the synth and that kept things pretty simple-only so many knobs would fit on deck. Early digital machines tried to save money by eliminating knobs, but they were still pretty easy, because they kinda used knob mentality-your programming options were still mostly limited to what you could do if you had a lotta knobs on the machine, only you didn't really have the knobs, you just had a few buttons instead; you had to imagine the knobs, but they were there, hidden behind the buttons and the little LED. I mean, how complicated can it be if your only clue to the inside of the machine is a two-digit LED (ask any Mirage programer...).

The ESQ-1 pushed knob mentality to the limit: twenty sound programing buttons and a cute little diagram that made it look a good ol' boy analog synth; oscillator to filter to amplifier, toss in a few envelopes and LFOs-no problem, piece a cake. But look at a Hackerpatch diagram: yep, 132 (one hundred and thirty two) variables.

And the VFX pushed us all right over the edge. Take a look at the new VFX Hackerpatch page-go ahead, count 'em-or just trust me: how about 629 variables. Six hundred twenty-nine variables. We are no longer in Kansas, Toto. We are no longer talking knob mentality here.

Kemo-sabe; we are o-o-o-over the edge.

Uh, sir, please hand me that box there, the one labeled Proteus, yup, nine hundred nifty sounds, ready to play, no thinking required....

Hold it.

We may be over the edge, but we are not

If you have a VFX or VFX/SD, and if you have an IBM/clone computer, you should immediately pick up the phone and order a copy of Turtle Beach Software's OVIEW/VFX. The guy who sold me my copy said it was the most elegant patch editor/librarian he had ever seen for any computer, for any synth-not true, perhaps, but not far off.

Open the box. Take out four floppy disks. Transfer the files to your hard disk. Check the wires from your MPU-type MIDI interface to the VFX. Type "OV," hit enter. Bingo, your IBM screen looks like a Mac. Except that if you have a VGA monitor, it looks like a NExT.

Yes siree-color, icons, menu-bars -authors Roy Smith and Jim Johnson (you know that name, Jim Johnson, don't you? Hacker Jim Johnson) have written 600k worth of User Friendly Graphic Inter-

Close the manual because with a very few exceptions, you're not gonna need it. What you are gonna need is a mouse, or a trackball. It's 1990 and you don't have a mouse? Don't you do any fun stuff on your computer? Go get a mouse, or better yet, a trackball-you can run this whole

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VFX & (E)SQ(-80) Hackerpatches

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program from a trackball set on the deck of your VFX—don't need to use the computer keyboard at all, 95% of the time.

Look at that first screen. You're in Program Editing Mode. If you don't like that, you are one clear menu item away from Preset Editing Mode, Global Editing Mode, Program Bank Mode, or Preset Bank Mode. Pretty intuitive, huh? The whole program's pretty intuitive.

Program Editing Mode. You've got a blank screen with a menu bar across the top, and seven icons down the left side.

What's an icon? Well, Ivan, it's a little picture with a label on it. Move the mouse pointer to it, double click, and viola, the blank part of the screen fills up with a large window, chock full of sliders, and buttons, and dialog boxes and scroll bars and ... whoa, wait a minute, come back, explain this jargon.

What Roy and Jim have done is to take the GEM operating environment, very similar to the system used by the Atari and Amiga computers, and use that graphic environment to "illustrate" all of the programing and performing variables for the VFX in a form that is friendly and largely self-explanatory. The program has five "modes." Each mode gives you between three and seven "icons." Each icon opens into a large window that deals with a cluster of related variables. Each variable is illustrated by some graphic device—a slider, a button, a miniature keyboard, an envelope diagram, or a number in a box—that allows you to immediately see what your range of options is, and to choose any allowable value by "pointing" and "clicking" with the mouse.

For instance, one icon in program editing mode is labelled "Program Control." Activating it unlocks a large window that lets you select a VFX "sound" and illustrates volume, pan position, and effects routing for each of the six voices that make up the chosen "sound," as well as graphically indicating how each patch select setting chooses from among the six voices. Activating the "Filters/Output" icon lets you simultaneously see, and edit, all of the variables related to keyboard zoning, velocity, volume, pre-gain, filter cutoff, and filter mode for each of the six voices—and assign modulators for each. Because each "window" effectively illustrates a cluster of related variables, it is much easier to see how changes to any value affect the overall sound of the patch.

The power of the program lies in the choices that Jim has made in clustering related VFX variables into each "window." In "Program Editing" mode, separate icons deal with envelopes, the LFO/mod-mixer variables, effects routing and selection, and pitch table modifications. The effects window is a graphic doozy, and the pitch table window lets you see all the values at once. When you switch over to "Preset Editing Mode" you find similar windows dealing with the output mix of the separate preset "sounds," their individual key ranges, and the MIDI implementation of each—and again, the zooty graphics effects diagram. A "Globals" window gives you simultaneous graphic control over all the variables on the VFX "MIDI" and "Master" pages.

You can have more than one window open on your computer screen at any time. You can have lots windows open at once. And you can go further: you can choose your own selection of windows to be open at once, move them around the screen, shrink 'em and cut off pieces of them—and save the new arrangement in such a way that any time you punch the right "F" key on the computer, your very own arrangement of windows

flashes up on the screen-and an it

The program also gives you some ther values 256 note graphic sequencer, a calculator duration in milliseconds of various note values that you choose. And a sophisticated "random patch; that is better than random; for any two sounds that you create, you can hold any parameters constant, and late between the two sounds for all other parameters, two sounds you choose, you can generate 58 in-be sounds...

Alright, so it's wonderful and nifty and neat. It's powwon't make either your VFX or your computer crash.

But it ain't perfect. Fact is, the program has a real achille: heel.

First, oddly enough, the program doesn't include a sequence librarian for all you folks out there with a VFX/SD.

But even more importantly, the weakest part of the program is the routines you will use to save your work. When you are doing anything creative on a computer, you have to be able to store your work—quickly, easily, repeatedly. And frankly, storage routines in OVIEW are the pits. No matter where you are in the program, to save your current work, you have to move into one of the special "Bank Editing" modes, and then you have to "open" a new virtual bank, and then you have to save that bank to your hard or floppy disk. You can do it, and you don't even need to shut down your other work to do it—but it is awkward, and it encourages stupid mistakes—it's just too easy to wrap up an evening's work, and realize as you hit "park" that you saved everything to the program's virtual banks, but forg.

And while copying parts of patches into other voices or patches is relatively easy, the copy, delete, and move functions that you will use repeatedly-to assemble all your horn sounds, say, into one bank; or to prepare special working banks for a gig-those functions are awkward also. First you have to move your files off the disk into one of the program's four available virtual banks. Then you have to move the mouse over these little tiny names stuck on this graphic apartment house image. And then you have to keep one hand on the "shift" key on your computer keyboard while you run the mouse with the other hand to pick up all the patches that you want to move. YUK. Here these guys write an entire program that is so clear and logical that it can be run almost entirely with a trackball above your mod-wheel. And then they use a "save" and "move" method that takes one hand. on the mouse, one hand on the computer keyboard, and a magnifying glass held between your teeth. Fortunately it probably wouldn't take a wizard like Jim Johnson very long to modify this part of the program, and you can use it the way it is-so buy the program, and complain about the save, move, and sort func-

And speaking of customer support—that's got to be among the strongest in the industry: after all, if you finally wear out the staff at Turtle Beach, Jim has been a TRANSONIQ-NET volunteer for ESQ-1 questions for years, so it isn't likely that he'll be hard to reach with questions about his own program.

Alright! Your VFX or VFX/SD is a digital monster, but if you've got an IBM-type computer, you can harness it with this program. So pick up a copy of OVIEW/VFX, fire up your machines, and start getting some good patches in to the Hacker!

## **Front Panel**

## RND (111)

## **News from Ensoniq:**

VFX-SD Music Production Synthesizer, the VFX-SD Version II.

The ed model includes new sound and sequencer features that we used in direct response to dealer and customer requests.

The new Operating System, version 2.0 fixes all known sequencer probleds and adds new requested functions. Major sequencer additions include Multi-track recording from an external MIDI source, which allows users to transfer sequences from external sequencers in a single pass. Step-entry recording is implemented and there are numerous refinements to the existing sequencer functions, adding to the VFX-SD's flexibility as a workstation instrument. A new chorus/distortion/reverb algorithm has also been developed for the effects section of the VFX-SD.

The new VFX-SD Version II also includes 1 MEG of new acoustic and e'ectric piano waveforms for an improved piano sound. It retails for " 395.00 and replaces the VFX-SD in Ensoniq's product line-up. Existing rX-SD owners can get all the software enhancements minus the new and waves as Operating System upgrade 2.0 for a nominal installation charge. VFX-SD owners who wish to upgrade to the Version II unit with the piano waves will have to get their main board replaced. They should contact their Authorized Ensoniq Repair Station for pricing and availability.

And this just in from Jim Johnson: Yow! Color me inattentive! When I by read up the VFX patch sheet for BIGTHICK, the second sound described in my article on dynamic component synthesis, I left out the LFO settings. And this after I went on about how important the LFO settings are. Here is the missing material. My apologies to everyone on this.

1	2	3
10	24	40
Noise	Noise	Off
-15	-8	0
99	5	3
Off	Off	Off
0	54	0
Sine	Triangle	Triangle
Off	Off	On
36	68	26
	Noise -15 99 Off 0 Sine Off	10 24 Noise Noise -15 -8 99 5 Off Off 0 54 Sine Triangle Off Off

'ell, it looks like we're starting our sixth year with this issue. Who 'da uessed it. Back during Issue 1 and 2 we wondered what we could possibly do for 3 and 4. We'd like to thank all of our writers, readers, advertisers, the Ensoniq Corp. and all their dealers for helping us keep this thing going. Thanks!!

### TRANSONIQ-NET

HELP WITH QUESTIONS

ALL ENSONIQ GEAR - Ensoniq Customer Service. 9:30AM to 6:30PM EST Monday to Friday. 215-647-3930.

EPS QUESTIONS - Erech Swanston, Maestro Sounds. 718-465-4058. Call anytime. (NY) If message, 24-hr callback.

VFX QUESTIONS - Sam Mims, Syntaur Productions, 818-769-4395. (CA), 10 AM to 11 PM PST.

SEQUENCING - Larry Church, Danlar Music, 503-692-3663; Call anytime.

SQ-80 QUESTIONS - Michael Mortilla, 805-966-7252 weekends and after 5 p.m. Pacific Time.

EPS QUESTIONS - Garth Hjelte, Rubber Chicken Software, Pacific Time (WA), Call anytime, If message, 24-hour callback, (206) 242-9220.

ESQ-1 AND SQ-80 QUESTIONS - Tom McCaffrey, ESQUPA, 215-830-0241, before 11 p.m. Eastern Time.

ESQ-1 QUESTIONS - Jim Johnson, (503) 684-0942. 8 a.m. to 5 p.m. Pacific Time (OR).

MIRAGE 24-HOUR HOTLINE - M.U.G. 212-465-3430.

ESQ-1 QUESTIONS - International, Brendon Sidebottom, (03) 689-5731 Australia. No calls between 4 a.m. and 10 a.m. Australian ES Time.

SAMPLING & MOVING SAMPLES - "Mr. Wavesample" - Jack Loesch, (201) 264-3512. Eastern Time (N.J.). Call after 6:00 P.M.

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.

SAMPLING - Mark Wyar, (216) 323-1205. Eastern time zone (OH). Calls between 6 pm and 11 pm.

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## SUBSCRIPTION INFORMATION

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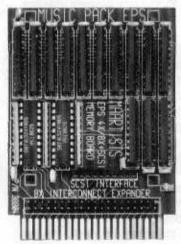
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#### Fight Obsolescence:

## Layering Your ESQ-1/SQ-80 with Other Tone Modules

Charles R. Fischer

Once upon a time, a musician wandered into a music store, and was immediately forced into a state of shock from the amazing new instruments on display. This poor musician has been working with the same antique synths for over five years—poverty had kept him out of the marketplace for a long time. However, his luck had begun to change, and he was ready to buy an up-to-date axe that fit into the MIDI world that had popped up during his lean years.

One axe in particular caught his attention. It was something called an ESQ-1; with its onboard sequencer and large variety of available sounds, it seemed to match his tastes and pocketbook rather well. After making sure that nothing else in the store might be a better choice, our hero drew his sword and approached the salesperson...

. . .

That bold warrior was none other than Yours Truly, circa July 1987 or so. I'm bringing my story up so that you can reminisce about the time you first encountered your present synth/sampler; you probably spent most of your free time with your newest possession, drooling over its sounds, swearing how you would never need anything else now that you had this incredible instrument...

The trouble is that all good things must come to an end sometime, and so it is with your synth honeymoon. The sounds that inspired you to write that check just don't excite like they once did; and the third-party sounds you get seem to lose their sparkle even quicker. What do you do now ??!?

If you're wealthy enough, you can always buy something else. Enough people do this so that our economic system (and society) continue to function, although most of us slobs just can't seem to get everything that we'd love to have. You can sell off older gear to finance something new, albeit at a financial disadvantage, and you'll lose whatever good things your older stuff still had.

I gave up the idea of obsolete instruments back when I went through my years of no money and big dreams; instead, I've grown up and stretched my collection by combining the best of the old and the new. The ESQ-1 was replaced by an SQ-80 after a year so that I could store sequences on disk instead of the clumsy tape interface on the ESQ. And to make the SQ-80's decent sound quality go further than many friends thought it could go, I began using external sound modules to thicken and expand its sounds. Sorry, Ensoniq, I'm not going to be

shelling out for a VFX this year. It's a great machine; too bad I just don't need it right now!

#### Limitations of the ESQ/SQ Architecture

As good as the ESQ-1 and SQ-80 are, there are many people who find their sound quality less than ideal. The limitations of 8-bit sound cause those clean, clear digital timbres to turn gritty and hard, and a few picky folks can't abide with having a hybrid analog/digital machine trying to produce the warmth of a 100% analog critter. (I have to admit that I agree with them, although I have found that the SQ-80's improved fidelity is certainly adequate).

Maybe you're past the honeymoon stage yourself, and you're now a little less thrilled with some of the sounds in your toy. What will you do now? Sure, you could join the cults who won't own any axe older than last year's marvel; the obvious drawback is that this type of habit can get very expensive, and you're always trying to learn a new instrument, instead of concentrating on the music itself. Anyway, the last time you drooled over this year's newest wonder, your spouse seemed to be less than enthusiastic...

A second option that I've adopted is to stick with stuff that's not quite obsolete, and to work around the limitations by prudently investing in newer accessories that extend their useful lifetimes. Instead of ditching your once-honorable axes (usually at a financial loss) so you might keep our free enterprise system healthy, take a cold, hard, look at whatever flaws are making you consider a replacement; then look for a cheap gadget that will fix it up enough to keep it flying, and end up saving some money at the same time!

As an example, let's say that you've considered selling your ESQ-1 off because it doesn't have a disk drive, and the very idea of using a cassette interface onstage is sufficient to get yourself placed under psychiatric observation in some states! When this situation happened to a good friend of mine, he decided not to punt, and bought himself the Indian Valley drive instead. While the ESQ-1 isn't exactly state-of-the-art soundwise, he's happy with it and the combination solved his problem.

You can use the same trick to enhance the sound quality of your present synth, too. First, you have to sit down and decide which kind of sounds aren't cutting it, be it FM, LA, or analog; then you shop around for a tone module that is capable of producing these timbres with acceptable fidelity. Now you use your new module to play the

timbres that your original axe couldn't, and continue using old faithful for the sounds it does manage to pull off. That's right, folks: YOU PROBABLY CAN LIVE W.THOUT THAT MULTITIMBRAL 64-VOICE MONSTER that you've lusted after for months. Instead, pick up a lass-popular (maybe used) product that cures the main problem at hand, and keep saving your money!

#### **Using External Modules**

By now, you're probably sitting down at your Ensoniq instrument of choice, and you're checking through the programs so that you can remind yourself of your least-favorite sounds. I suggest that you approach this task carefully, as many otherwise sane musicians find themselves rejecting 90% of the patches that they've used from day one. Don't do this! You just want to decide if there are certain categories of patches that have never satisfied your tastes; be on the lookout for 'families' rather than the sounds purchased from some obscure sound developer.

Maybe it's the percussive sounds that are the weakest to your ears, or the digital timbres, or the analog strings, or something else. Now that we've figured out what sounds aren't cutting it, it's time to look around for a second instrument that can do these categories without complaint. There are tons of "obsolete" modules sitting around in stores or closets simply because they aren't multitimbral, or they are a little lame at producing the sounds that YOUR synth does just fine, or their owner just can't face the social stigma of owning any instrument over 2 years. It's not very hard to pick these dinosaurs up for a tiny fraction of replacing your present instrument!

Once you've bought your new module, it's wise to run through the existing presets (you might find it does more than you first thought). Now you can go through your original machines patches, and delete any sound that is being taken up by box No. 2 (you can use the space for other sounds). If the new module is capable of storing user patches, take the time to clear out any misfits; just be sure to make some sort of backup before you throw anything away.

Any sequences that you've already recorded will have to be loaded up, one bank at a time, so that each track can be edited to send the right parts to the right module. This will probably require that you go through each track, making sure that it is now talking to the sound module that you're asking for. In case you've never done this before, you're going to learn some new things about the sequencer, and MIDI in general.

Most of these parameters are located under the MIX/ MIDI portion of your sequencer, and be forewarned that you can prevent MIDI data from getting to its destination by setting just one thing the wrong way. If you're only been using the sequencer to play the internal voices, getting everything up and talking can be a frustrating experience. In this case, it's a very good idea to talk to someone with a little more experience here; I've seen newcomers spend 45 minutes by going back and forth to reassure themselves that a sequencer track was set to the same MIDI channel as their module... only to discover that the track was set to 'LOGAL' mode, and was prevented from sending its data out over MIDI.

Eventually, you will discover enough of these perils, and everything will begin to fall into place. Your ESQ-1 sounds pretty good doing the parts it does best, and by adding your second module, not only does everything sound better, the ESQ picks up a few patch slots and available voices to be used elsewhere. And the money that you save can be used for something else—a multieffects processor, a new drum machine, or maybe a weekend trip with your significant other!

No musical instrument is capable of doing everything by itself. Not too many musicians attempt to play drum rudiments on a grand piano, or imitate a marimba with a tuba; it's just as unrealistic to expect your ESQ or SQ-80 to reproduce any sound perfectly. Don't get frustrated and end up selling it off cheap. Instead, with a little homework, and some careful shopping, you can keep your dinosaurs playing on into the next century!

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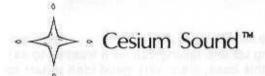
Chris Barth, TRANSONIQ HACKER, June '89 Review "No risk here! A nearly perfect collection of sounds for the ESQ and SQ-80. I didn't write the first Q-Spectrum review but if I had I would have been just as complimentary. Now that I've got my turn...let me start by saying this collection is absolutely mandatory if you've got these synths...What strikes me immediately is a complete lack of filler. Almost every patch has a finished quality to it making each one sound like the best one in someone else's collection...Tremendous variety of useable solo keyboard sounds...Well crafted acoustic pianos...Bright, new electronic keyboards...Lots of my favorite synths...Orchestral pads as fine as any I've ever heard...Moogs...Great classic sounds... Nothing strikes me as a waste. Even if you were deaf the Q-SPECTRUM collection would stand out from the rest. Jed Weaver has produced another excellent package which belongs in every ESQ and SQ-80....One of the best deals out there!"

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## VFX Questions from the Transoniq Net

Sam S. Mims

By far, the majority of questions I have fielded about the VFX have been related to software/hardware problems, rather than programming problems or the like. I'm not a repair tech, so I can't help out very much in that area. I do know a of number of software bugs, but if you're wondering about this sort of thing, you're better off talking to Ensoniq customer service; they can tell you if they are aware of a particular bug, if it is being "exterminated," and that sort of thing.

And now, the answers to all your queries. I've even got aswers for which there are no known questions!

now can I program a monophonic sound? I know it can be done, because the factory SOLO TRUMPET patch is mono, bu I sure can't find a MONO parameter anywhere.

Will, obviously, you need to look on the PITCH MOD page, or GLIDE. ("Huh?") Yeah, I know that doesn't make much se, but that's how you do it. With GLIDE set to NONE, a get a monophonic voice, with glide time controlled from PROGRAM CONTROL page. MONO gives portamento ween every note, while LEGATO glides only between se that are played in a legato style (i.e. when a second note is depressed before the first note is released). With CLIDE set to PEDAL, the polyphony is affected as well; check the manual for details on how this works. But in any case, GLIDE=MONO or LEGATO is the trick to getting a menophonic patch.

Why can't I save the sequencer operating system to disk on my VFX-SD? I'd like to make a backup disk to take to gigs.

tele SD won't allow you to write the sequencer O.S. to disk, en though the screen prompts appear to allow this. The ay to get around this is to use the Disk Copy function, which will copy the entire contents of a disk, including the sequencer O.S., from one disk to another.

How can I do step-time sequencing on the VFX-SD?

Well, you can't. Yeah, it seems like an oversight to me too, but keep your fingers crossed and keep a rabbit's foot in your pocket, and maybe this will be included in the next upgrade.

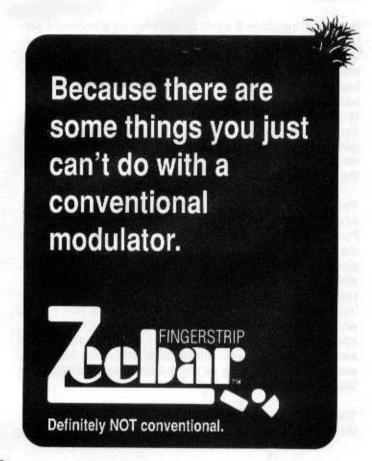
On page 2-10 of the VFX-SD manual, it says I can replace a program in a preset, and make its effect become the preset's effect by pressing the Performance Effects button while holding down the Replace Program button. For some reason I

can't get this to work.

You're right—it wasn't implemented correctly. But it's currently being fixed in the software.

The VFX-SD manual (page 5-8) says I can layer up to 11 programs on a sequencer track. I can't get this to work correctly.

Here's where there is a bit of confusion. On the VFX, there are MULTI A and B buttons, which access "Tracks" 1-6 and 7-12. Here, you can set up mega-layers of 11 other programs, create a setup to receive multi-timbrally on 12 MIDI channels at once, and that sort of thing. On the VFX-SD, these buttons became TRACKS 1-6 and 7-12, for the sequencer. (Do you wonder if maybe they had a sequencer in the works when the VFX was released?) So, with the TRACKS buttons on the VFX-SD, you can set up megalayers in the same way; in fact, anything you can do with the VFX MULTI buttons, you can do on with the VFX-SD TRACKS buttons. But this layering is for performance only—the sequencer will not record 12 patches on one track. This should have been made clear in the manual.



## **Technosis Proselect Volume 2**

Christian Barth

For: ESQ-1, SQ-80.

Product: Proselect, Volume II - 80 SQ Patches.

Price: On cassette with additional 120 voices, \$60 postpaid; on SQ-80 disk with 200 additional voices, \$85 postpaid. California residents add 6.75% sales tax.

From: Technosis, 3960 Laurel Canyon Blvd., #353, Studio City, CA

91604. (213) 656-3515.

Nothing rekindles my interest in a synthesizer (especially the ESQ) faster than a new set of patches. Unfortunately, some of the recent collections have been long on volume and short on quality. My ESQ and Baby M are almost four years old now, and by this time, I thought I'd heard just about everything programmers (and the Hacker) were going to send me.

Looking back over the past years, I find patches from SOFTWORX, VOICE CRYSTAL, Q-SPECTRUM and MUSIC BANK making up the bulk of my "keeper" ESQ collection (not to forget some of Sam Mim's great Hackerpatch edits, along with Volume 2 of his for-sale stuff!) But when I wanted something different, something no one else had, something two noise waveforms and two octaves above or below everything else, I always turned to the infamous Mike Peake of TECHNOSIS, a/k/a PSYCHE SHRIEK.

Now Mike has done it again by assembling a knockout collection of killer patches that breathe new life into my Malvern dinosaurs. When I hear the whimpy stuff which passes for third party Korg M-1 patch collections, I lean back and thank my lucky stars that someone with the talent that Mike possesses took the time to borrow an ESQ (you mean he sold his first one!?!) and added this dynamite package to the ESQ library. These eighty patches turn the ESQ into a brand new instrument which easily holds it own with most of those 16-bit wonders in the stores now.

You can read the reviews of Mike's earlier efforts in Hackers #32 (Psyche Shriek) and #43 (Volume 1 of the Proselect Series.) For those of you who missed them, let me explain that Mike listens to the sort of music your parents hate, and programs the ESQ accordingly. No whimpy strings here. This stuff is alternative, counterculture, underground, and good enough to make its way into whatever you're doing (as long as you don't need whimpy strings!) He also includes enough ESQ programming notes to create another three or four patches from each one he sells you. No other programmer has come even close to revealing as much about this synthesizer as Mike has.

This time around, he has introduced "pseudo-reverb" on thirteen of these patches. Similar in concept to the

"second release" feature on the SQ-80, "pseudo reverb" utilizes one of the ESQ's envelopes to simulate a reverb effect. It doesn't work on every kind of patch, but it's impressive when it does. And if that's not enough, his notes explain in detail how you can duplicate the effect on some of your own patches. If I had to pick one category of sounds which I liked the best, it would be the bass patches. I have heard literally hundreds of bass patches on the ESQ, and few of them offer the fat bottom which is heard on these. Mike did this by layering all of the bass patches with BOTTOM, a generic sawtooth waveform bass patch that sounds great all by itself. Not content with this patch alone. Mike uses it as the foundation for about fifteen completely different, totally original, and very fat bass patches. Mind you, this comes from the same programmer who provided a completely different set of killer bass patches the last time he tried this a couple of years ago. I've often criticized the ESQ for not having a convincing bass sound, but now I realize that the fault lay with the programmers, not with the ESQ itself. Even if you didn't like anything else in the whole set, the bass patches are worth the purchase price by themselves. They are particularly well suited for sequenced bass lines.

There are lots of other sounds here which I've never heard on the ESQ before. FUZNET is a nifty bass clarinet simulation. AKORDN is a reedy, buzzy accordion sound; there are some vocal choruses and electric pianos too. But mostly, this stuff has a hard edge to it, with generous use of the noise waveforms, odd tunings, filter sweeps, and even a phase shifter effect (a first for the ESQ) on PHASE IV. My favorite is MR. DEATH, which is "intended as a bass crush, used at the end of the crescendo, instead of a crash cymbal." He's not kidding; this is one impressive saw/noise combination! You might only be able to use it once in your lifetime, but people will notice it when you do.

According to the chicken scratch notes Mike sent me with these patches, he's offering this set for \$25 to his registered customers. For the rest of you, he's selling both Volume 1 and 2 and the original PSYCHE SHRIEK patches on cassette (200 patches for \$60, and the SQ-80 disk includes his infamous SQ-80 MasterPatches too). If you've purchased any of his earlier stuff, you'll want this collection. If you've never heard it before, though, and if you are looking for something that doesn't sound like anybody eise's stuff (doesn't even sound real in some cases!), well, to these ears, this is the deal of the century for adventuresome ESQ and SQ-80 owners. As for me, I'm taking the bucks from writing this review and ordering Mike's Korg M-1 patches, distributed by Sound Source Unlimited (1-800-877-4SSU) as the Korg M-1 Pop/Rock collection. If it's half as good as this stuff, I might even keep my M-1.

## Sound Shuffling on the ESQ-1

#### Buster Whitlock

When Ensoniq introduced the Mirage, we all oohed and aahed at this technological marvel. Then came the ESQ-1, another wide-eyed wonder. We soon found that by using the MASOS disk, we could load sequences and sounds to and from the ESQ with our Miragel There was just one catch...

I found myself with a million sound banks on Mirage disk, but there were only a few good patches in each bank. Then I couldn't remember which was which, since my hacker buddies use patch names like "XFIDO." Anyway, my main problem was consolidating all of my usable sounds onto a couple of disks without manually programming each patch (and without a computer and an ESQ librarian). The ESQ will dump sounds in bulk to the Mirage, but it won't dump one sound at a time, like it will with another ESQ.

I found my answer in the Compare button located near the patch select buttons on the ESQ. This button is normally used to compare an edited version of a sound with the original version stored in memory. However, this button can also be used in other ways, one of which is to solve my single patch dump problem.

I discovered that I could temporarily store a desired patch in the Compare buffer, and that it would not be affected by bulk dumps to and from the ESQ. Therefore, I could "save" a patch from one bank of sounds and write it into the desired location of a different bank. Piece of cake, right?

Okay, so you want an example! First, let's designate a disk as the master disk. It should contain a bank of patches that you use a lot, but that still has some "clunkers." Our goal here is to replace one of the clunkers with a great new sitar patch that is stored on another disk.

- Boot up the Mirage with MASOS. Load the general sound bank containing the sitar and send it to the ESQ. (Consult your ESQ manual for this procedure.) Select the sitar sound.
- 2. Now let's put this patch into the Compare buffer we mentioned earlier. To do this, select any parameter (filter, DCA, etc.) and change any one of the values listed. You will notice that a "C" appears in the left side of the display. You have just accessed the Compare buffer! Now change the parameter back to its original value. Your sitar is now temporarily stored in the buffer.
- 3. Now take your trusty master disk and load the main file bank into the Mirage, then into the ESQ (just like you did with the general sound bank containing the sitar). Press the Compare button. You should be able to play the sitar patch on the ESQ and will see the "C" again in the display. You can store this sound as you would any other patch edit, by pressing the "write" button and the destination of the sound. Your sitar is now part of the master file in internal memory! Be sure to load this revised bank back onto your Mirage disk for permanent storage.

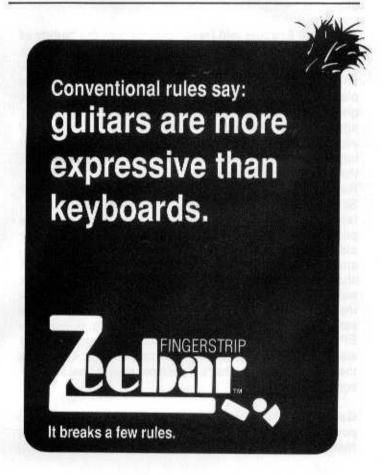
I have also found that if you own a RAM cartridge, this process can be simplified.

- Load the general sound bank containing the sitar patch to the Mirage and then to the ESQ. Then copy this bank into a RAM slot.
- Load your master file into the internal memory of the ESQ.
   Now you can transfer any good sounds in the RAM bank (not just the sitar) to the internal master file by using the Compare method described above. Again, don't forget to store this revised master file to disk!

You can now load another general bank into RAM and repeat this procedure until all of the good sounds on the general disks are consolidated onto master disks. Sound shuffling is easier with the RAM cartridge, since you can load through the Mirage for each bank, rather than for each individual patch.

By using the above procedures, you can consolidate good sounds from several banks to one or two. You can also organize your banks into different groups (strings, brass, keys) more easily and with greater flexibility. Happy hacking!

Bio: Buster Whitlock is an application specialist with a major tool company by day and a Christian writer/performer whenever he can. He owns an ESQ1 and a Mirage rack-mount, and will use the monstrous pay-off from this article to help purchase a VFX.



## The EPS: Multiple Resident Instruments

"Welcome back, my friends, to the show that never ends..."

Pat Finnigan

Do you remember why you bought your EPS in the first place? Was it its sterling sound quality? Perhaps the gauche styling of its grey frame? Because it played itself with remarkable precision? A sampler that could play and load simultaneously? What was it? In any case, you've amazed your friends and dropped phrases and buzzwords like "wave-particle duality": the world thinks you're a member of the Quantum Physics Union. But what have you done for your EPS lately?

If you read as closely as your mate, you've plugged your 4X expander in and are reveling in its glory. You pat yourself on the back for buying the EPS keyboard, as you have 256K or 80,000 notes of sequencer memory that the EPS-M is lacking (since it shares sample and sequence memory with the same 4X card that holds only sample data in the EPS) and realize you've got a volatile monster on your hands. Not a ROM-based play-only VFX-SD or M1, T3, whatever. YOU configure this animal to be a pussycat or a bear, kinda the converse of exuding your personality in choice of pet. So boot the EPS, Edit/System to guarantee 4091 free (well, not quite) blocks, and off we go!

See, what Ensoniq told (read sold) us was the beauty of having subtle nuances available at the mere press of a patch select button. Secretly, we understood we were invoking a new set of parameters for the wavesample in play, i.e., different envelopes, modulators, et.al., for a given instrument. After about a week of midnight oil, you agreed and marvelled at the horn and brass sounds. If you were really methodical, you discovered that the patch buttons not only invoke a new overlay of parameters, but they occasionally called up DIFFERENT SAMPLES. Remember the original Mirage Sound Disk #2; "48 Sounds on Disk"? Those program changes called up different samples-or did you forget Mix Mode? Those patch buttons invoke the same 4 program changes as our old friend the Mirage does. And invoke/revoke them instantaneously. Why, you can even record those patch changes in any sequence! Are you getting a fix on what it would be like to have the facility of 8 Mirages under your Instrument/Track buttons plus 4 times the memory for samples in 13-bit resolution? All of a sudden, doesn't the EPS seem like a bargain? Fully blown, stroked, ported and relieved (with all factory options), it STILL costs less than 3 rack Mirages: that's 5 for free! Here's how to manage all that power. . .

Get paper and pencil. We're gonna configure all this power into the 32 most frequently used instruments and make them resident. Group your instruments into a comfortable working slate, i.e., don't group your stab brass with piano unless you really need that form of organization. Assign Instrument/Track 1 as your favorite drum kit. I use the M1 disk since it only occupies 1442 blocks and has reverse layers. Okay, Instrument/Track 2 will be Basses. We're keeping a slate here, so look at the order of instruments as track placements on a mixing board. We need a fretless bass for jazz, a deep pedal-tone bass for ballads, a Steinberger for funk, and a synth bass for Bruce Hornsby. Load these (or any favorite 4 bass samples into any four Instrument/Track locations. Let's begin!

Delete any unwanted waves and layers from these principal instruments, as we want the most representative sample from each style to be present at the push of a patch select button. At least for now, find the single most representative sample of each bass and delete all OTHER waves and layers. THEN you can go ahead and convert sample rates downwards to conserve memory. Not much fidelity is lost by converting samples to 19.5K rates except cymbals and DX-ish sounds with zounds of HF content. You'll be surprised at how much memory can be saved by this simple process. After all, these are BASS samples, and short of the spank of certain slam bass samples, you can recover more memory than you think by converting sample rates down. THEN, move the loop position forward for each sample until a noticeable sustain is evident. Move sample end to loop end and truncate. SAVE after EVERY operation: it's easier to recall the last operation than the previous 4 wave operations. Besides, the EPS crashes occasionally, so be careful and save often.

Edit envelope amplitude parameters until you get an approximate sound of the sample you started with. Don't be afraid to start the sample 1-2% of its total space, as most attack transients don't really begin to develop until 3-7 msec have elapsed; the exception being percussion and certain Karplus-Strong plucked elements. The rule of thumb is to make the sample as small as possible to conserve memory while still maintaining an accurate character of the representative instrument. I've gotten full-out B-3 samples in 32 blocks and then added a detuned "Params only" layer to simulate the chorale rotor.

Repeat this process with the other bass samples until you're satisfied with the results. Ain't looping with the EPS a breeze? Beats the hell out of that cryptic little 2-digit hex window, eh, all you veteran Mirage hackers? Oops, I'm getting sentimental over MASOS: sounds like a Dorsey tune. Back to square...

OK, you've done that for each of the four bass sounds, right? Now we combine all four instruments into a single instrument under patch button control. I'll use instrument #2 for the example. Each bass sample occupies a single layer of a single instrument, so all we do now is copy the 3 layers of each instrument to instrument #2, then copy each sample from instruments 1, 3 & 4 into layers 1, 3 & 4 of instrument 2. Be sure to use "Copy Params + Data" for these operations to make sure you get all envelope, tuning, modulation data and LFO info for each wave and layer (remember "Mix Mode" tuning headaches in our old friend Mirage?). Now instrument 2 has 4 layers of bass samples. Assign each layer its own patch select button on the "patch select page (00, 0\*, \*0, or \*\*) then audition each patch. You might want to adjust wavesample volumes for consistent level.

There, you've done it! You thought only Ensoniq could manipulate wave data that well? Don't worry if you make mistakes doing all these edits; the factory lays some eggs on its own, too. I'm still waiting on backup software promised two years ago. Have you noticed all the Ensoniq disks come shipped "Send Keys To Both"? Edit THAT out RIGHT now and resave to disk before you start hanging MIDI notes on any of your outboard gear.

So, there you have it; the technique of multi-instruments in a nutshell. But that's only the beginning! Using the same technique for multisampled instruments requires a

bit more pencil and paper, just to keep similar multisampled instrument waves in a common layer, but that's about as tricky as it gets. Using splits in an upper/lower architecture yields twice as many available instruments. If you've got 4 instruments under each "Inst" button, 4 patch instruments X 8 instrument buttons X 2 instruments on the keyboard (split keyboard) you have 64 resident instruments! If you're as serious as I and sync 2 EPS together, 128 resident instruments are at your disposal/perusal. With OEX-8's and hard disk drives, co-sequenced orchestral realizations are the norm for this writer's particular system.

Considering the cost of what else is out there, why dork around with sample players when you can capture as close a realization as possible in the digital domain and twist it and turn it into something never before heard? Or just use conventional instrument samples and sequence symphonic scores? One is art, the other science, yet one without the other is neither...

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## **EPS Sequences by L.B. Music**

Garth Hjelte

For: EPS with 2x expander plus (highly recommended) any drum machine.

Product: Sequences.

Price: \$20 per song, sixth one free. (Buy 10-get 13, buy 15-get 21.) From: L.B. Music, P O Box 261, Clifton Heights, PA 19018, (215) 626-8890, (215) 533-MIDI.

Services. They're all around us, in the form of Nordstrom sales clerks, to your neighborhood pizza delivery driver, all the way to the courtesy clerk at a local grocery store. Once reserved for the elite, now all of us can partake in modern civilization's lap of luxury. No more do you have to grovel in the agony of doing something. Now you can have it done for you!

What does this have to do with our product review in hand? Well, L.B. Music is a sequence service company, offering over 300 EPS sequences to choose from. In this inside look, I'd like to focus on two things: first, the service aspect, then the quality of the sequences themselves.

You're a singer or an instrumentalist. Perhaps you do a solo or duo gig and you've bought an EPS with the hope of firing all your weasel back-up bands (that you pay too much for in any case). Doing ground-up sequences yourself seems pretty tough so you look for sequence companies. L.B. Music provides EPS sequences, supporting popular older and newer tunes. From the look of their list, they seem to target mostly pop, Top-40, and (dare we say it?) elevator-type melodies. There seems to be a good cross-section of material, but of course, you'll have to hear it yourself to see if it answers your own needs. You are basically limited to choices from their list, although they will do custom orders on a case by case basis.

To run the sequences you'll need an EPS and any drum machine (the EPS needs to be expanded at least 2x—they are currently working to eliminate that requirement). Not just an EPS? L.B. explains that they feel it takes away too many voices (out of 20) to support a full blown sequence. If you don't have a drum machine, they'll provide a bare-bones basic kit, with a warning: they'll be voice-stealing. Personally, I think good sequences can be done with drums/percussion onboard only if you're real careful with your layers in your instruments and your orchestration/playing. But on the whole, I think L.B.'s set-up is a good one. Better allow a little breathing room as far as voices and reap a better sequence. I just hope that the people who would like these sequences have drum machines—(do you?).

Inside a typical L.B. Music package is the sequence disk, a sound disk(s), documentation, note numbers for your drum machine, and a giant colossal negative space wedgie (no, not really). When you order, you'll specify your brand of drum machine and they'll match the drum MIDI note numbers on their sequence to match the FACTORY preset note numbers of your brand. If your drum machine is not set on those particular note numbers anymore, you'll have to go in and change them (so you do have a little work ahead of you). In the sequences I reviewed, I had to do this, but I found the people at L.B. very helpful and easy to work with.

Each song is priced at 20 bucks, with every sixth one free. I think that's a pretty fair price, considering the average profit of a typical user (50 sequences for around \$900—that's 5-6 nights of work, and you didn't have to do anything except the singing and/or instruments). Consider the price yourself and see if the numbers ring up right.

Before we take a microscopic look at the sequences themselves, what about the sounds they provide? L.B. has taken a generic approach: they have two master disks for all their titles; one having a basic standard set-up consisting of an organ, Rhodes, bells, horn section, guitar, clavinet, and electric/acoustic bass; and a big band disk, made up of trombones, trumpets, flutes, clarinets, etc. They're pretty much the standard fare of what we normally expect from the EPS; not super, but enough to get by. I would like to see some distinctive sounds to enhance certain songs; some songs are instantly identifiable by a particular flute/guitar/bell sound. L.B. does leave an open instrument (#4) for grand piano and rap percussion, but that's about the extent of it. As a result, the sequences could have a "freshness" problem. I suggest some innovative sounds for this open instrument slot-it could solve the problem. L.B. commented to me that they are continually improving the generic sound disks and that they do provide free updates to users if requested.

Sorry to go on at length concerning the sounds—I realize that L.B. is primarily a *sequence* provider, but it seems to me that the sounds need to go hand in hand. We're in a world of service-providers (there's that word again), and the people buying these will want minimal doing and maximum done. Alas—no problem! EPS sounds are getting better and better every day.

On to the meat of the issue: the sequences! They sound good, displaying competent chops and song authenticity. The "guitar" playing is believable and the piano/Rhodes

work is smooth. The drum feels are also well done—the Latin feel on "Hot Hot" had me dancin' in my 'didas. They don't seem very mechanical, except for the dance tunes, which are supposed to sound that way. Sparse, perhaps, but they felt good.

A few critical points: in a general sense, some parts needed a little more expression using aftertouch/pitch/mod/wheel items. Some songs just sort of sit there—maybe different sounds (as noted before) or more polish could do the trick. And some of the sequences I auditioned didn't volume information recorded on some of the tracks (not even 0 or 99). This can cause some mix inaccuracies, depending on your previous mix settings. This is an easy oversight to make (I do it a lot, since this is something that you can't see in any way). L.B. has been notified and is at work exorcising this particular demon out of their sequences.

One other thing: their songs are in the form of SEQ, rather that SONG (which is what I'm used to doing). SONG is made up of a SEQ for the verse, a SEQ for the chorus, etc. SONG has the advantage of in-time volume fades, dynamic contrasts between song parts, and quick-easy editing. The only disadvantage to SONG is that only one can occupy the EPS at one time so you can't chain them together (except by creating a larger SONG). So how does this ultimately effect the sequen-

ces? Well, it kind of robs them of some dynamic diversity since there isn't any volume/mix changes throughout the entire song. My suggestion: split apart some of the SEQs and make them into SONGs—and then work with them. It seems that could help a bit.

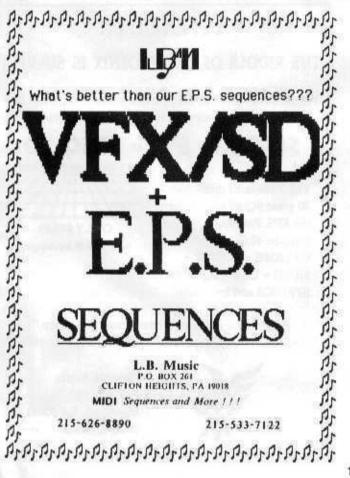
And one more nitpicky thing (isn't he done yet?). The MIDI notes driving my negative drum wedgie (a Rolard R8) seemed a little weak velocity-wise. The average amount was 55-90, on a scale of 0-127. The R8 seems to really like a range of 75/85-115 to get it to sound punchy.

Conclusion: If you're in the market for sequences these are worth checking out. Their style range is impressive enough—they seem to cover diverse styles rather well. In this world of service, remember that the customer is King! I think your almighty dollar would be well spent with L.B Music.

Bio: Garth Hjelte owns Rubber Chicken Software, a sampler sound company. He plays loud music in the Seattle area with wildly violent speed-metal bands, who mercilessly smash brand-new Fairlights onstage and then re-assemble them into small pocket calculators.

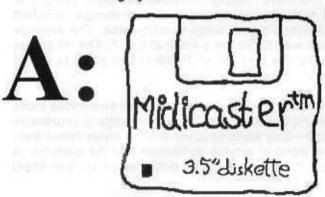
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## PSL Productions' D-50 Sounds for Mirage/EPS

Mike Castronovo

For: Mirage (EPS version also available for same price).

Product: D-50 Sound set 10 Disk Pack.

Price: \$69.95, Demo disk \$8.00, Demo cassette \$8.00 available (\$10 for both).

From: PSL Productions, P.O. Box 602, Station K, Montreal Quebec H1N 3R2, (514) 256-7936.

Samplers: The Final Frontier. These are the voyages of the sampler MIRAGE (prize), its (so far...) 5 year mission to seek out new sounds and sound-forms...To boldly go with 8 bits technology, where no sampler has gone before...

Okay, maybe I'm being a little over dramatic about the whole idea of sampling technology, but I believe, (and you might too,) that the greatest benefit is the Mirage's ability to imitate well almost anything you can feed into its input jack...So when I saw an ad for 64 D-50 sounds for my Mirage for \$69.95 I sent for the demo disk. After a listen to the demo, I laid my money down (or beamed it up?) and they shuttled back 10 disks of well done L/A sounds.

Each disk has usually 6 or more sounds. Some have a few more using the PROGRAM buttons. The sounds are laid out in a SPLIT KEYBOARD system. By choosing the LOWER PROGRAM settings you decide if you want to use the SPLIT set-up, or extend the LOWER SOUND for the whole 5 octaves, or extend the UPPER SOUND for the whole 5 octaves except the bottom "C" key. The UPPER PROGRAM choices (1-4) offer different envelopes for the Upper sound only. This layout system works well and allows you to have lots of sounds on fewer disks.

There is good documentation with the package, as well as a brief description of the Atari computer based editing system that PSL used to make these D-50 samples.

DISK 1—L1 Digidance: A metallic bell/string layer starts out this sound; as you hold the key an arpeggiated pattern of metal drum type sounds begin playing repeatedly...The sound seems most usable except in the top octave where the drums play really fast. As are most the sounds, 1 sample covers the keyboard, but it works pretty well.

DISK 1—U1 Future: A softer bell/horn/string layer. When extended over the entire keyboard (except 1st C note which stays always with Lower sound), a very usable musical sound. The loop is near invisible except for the top 1/2 octave.

DISK 2-U1 Sushi: One of those famous "breathy"

sounds. This one layers breath attack with flute which sustains. Perhaps this one might be a better solo than rhythm sound. It has a slight vibrato that works well. The loop is again almost unheard except in the top 8 keys or so.

DISK 2—U3 Blocell: I'm guessing most the names are spin-offs of the originals. Fortunately so far I haven't met a Biocell. An Oriental bell/chime sound with a slight de-tuned flavor. Very ethnic sounding (if you're doing MAZDA or NISSAN commercials you'll need this daily.). Certainly not for every song, but when it's needed...

DISK 4—L1 D-50 Drums: These sound more like metal poles and weak toms than a full blown drum kit. There is what appears a bass and snare but only in the loose sense of the terms. This sound does NOT extend up the full keyboard with PROG L2. I can only guess that just as the ESQ will never be the ultimate drum sound source, the D-50 has the same honor.

DISK 5—L1 and U1 Gritarr/Gritarr: The strange thing about this bank is that these are not the same sounds. Again each can extend the entire keyboard. U1 Gritarr is a guitar lead (synth) that seems best in the middle keyboard range. It decays fairly quickly, but sustain pedal will lengthen this to taste. L1 Gritarr is more of a metallic piano/string layer with a slight vibrato. Very usable sound, but should have a new name...how about "Typo Gritarr?" Again a bit loopy in the top octave only.

DISK 7—U1 Blown Bottle: No typo here. This is the kind of sound that made the D-50 a hit and will make you love your Mirage again. This sound uses three samples spread across the entire keyboard. (I haven't checked all the sounds for this; there may be a few more that use multi sampling, but I suspect not many.) Loop noise again is not evident except in the top 4 or 5 keys, even there not a major problem at all. I like flutes a little higher pitched, so I'd go into parameter 67 and step up 1 for each sample, but that's up to you.

DISK 9—U3 Pulse: This is nothing like any standard Mirage disk sample I've bought from the factory. A very slow attack sound with obvious envelope changes to a string/soft bell/reed layer. Very mood setting and mellow. If I was redoing a video of walking on the moon, this would fit just fine. No loop noise problem even at the top. This will never fit your rap styles, but it doesn't want to. It'll find its own home I'm sure.

The Away team's back, and I've got to admit I like this package. Overall usable sounds, lots of string layers,

some brass, breathy sounds, and even a Droid—robotish do voice. Maybe a couple of not too popular items, but I don't hear any absolute throw aways. Keeping in mind I run a recording studio and work with almost all styles of music, most of these sounds will fit nicely somewhere...Be prepared to deal with slower shipping due to Canadian mail, but it's worth the wait. I suggest (as always) get the demo disk or cassette first, before buying any sound. I only had time (and space) to do about 10 sounds, but I tried to give and overall representation of what you'll find. Hope it helps take you and your Mirage to more musically unexplored territory. Well...(Beam me up...)

Follow-up note: These sounds are also available done in the EPS format as well as a collection called "MIDI Textures" for both keyboards. I hope to do a review of the EPS "MIDI TEXTURES" in a forthcoming issue. The Demo cassette and disk contain samples of both packages for whichever keyboard you specify.

Bio: Mike Castronovo is 37 years old (though he doesn't always act it). Owns a full time 16 track recording studio called Studio "B" and a 6cyl Fiero that uses a lot of gas. Married with 2 children, he hopes someday to look grown-up.

#### **BACK ISSUES**

Back issues are \$2.50 each. (Overseas: \$3 each.) Issues 1-9, †1, 13-23, 27, 29, 30, 36, and 38 are no longer available. Subscriptions will be extended an equal number of issues for any issues ordered that are not available at the time we receive your order. ESQ-1 coverage started with Issue Number 13. SQ-80 coverage started with Number 29, (although most ESQ-1 coverage also applies to the SQ-80). EPS coverage started with Number 30. (But didn't really get going till Number 35.) VFX coverage got started in Number 48. Permission has been given to photocopy issues that we no longer have available - check the classifieds for people offering them. Reprints in our "Quick and Dirty Reprint Series" are available: MIRAGE OPERATIONS, for \$5, and MIRAGE SAMPLE REVIEWS for \$4. Each contains material from the first 17 issues.

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## RX-2: 44-Meg Removable Hard Disk

Robert Feiner

For: EPS, AKAI, ROLAND, E-MU, MAC, SCSI compatible systems. Product: RX-2, 44-Meg Removable Hard Disk.

Price: \$1199.00 (with one cartridge), Additional 44 Meg cartridge: \$129.00.

From: Eltekon Technologies, 37493 Schoolcraft Rd., Livonia, MI 48150, 313-462-3155.

Now that you are several thousand dollars into your MIDI system, have you reached Nirvana? Not if you don't have a hard disk drive and your system can support one. Hard disk drives have been out a long time for personal computers and over the past few years, music companies have been designing more and more gear to accept them. If your sampler can accept a hard disk drive and you don't have one, it's like having a Porsche with no swing.

In my search for the ultimate drive, I found out several things. The various computer companies that specialize in mail-order rarely know anything about drives and their applications to a musical instrument/keyboard. Most of the tech-support numbers are not 800 numbers and it takes a long, loooong time to get a human on the line for real answers. And once they have your VISA number, so long dude!!

The shining light, for me, at the end of the tunnel turned out to be Eltekon Technologies, not an oncoming train. And I really can't do a product review on a hard disk without also talking about the company who makes it. After looking at many drives and checking out size, speed, and in general, the bytes for the bucks, I called Eltekon and actually spoke to a real person, an engineer, and a musician.

Eltekon buys drives from the major manufacturers, ie: Seagate, CDC, Syquest, etc. and then creates the total working system. All these other companies do the same thing, so what's so special about Eltekon? They do their homework. Eltekon buys the cream of the crop of the drives and tests every one to insure that not only will they work reliably, but that it will also work in conjunction with your sampler/computer. Not all SCSI (Small Computer Systems Interface) codes are fully implemented by all manufacturers. While some communicate with ease between CPU and drive, like the MAC, some are more finicky. Any manufacturers reading this, please, in the future implement the "SCSI COMMON COMMAND SET" in your products. Let's get with it folks!

Eltekon makes various products relating to data storage and data manipulation. The fixed drives are available in all the usual sizes to 300 megabytes to a 600 megabyte magneto-optical (erasable disk) drive. The removable drive is the focus of our discussion and is called the RX-2.

Syquest makes the actual hardware, the drive itself and Eltekon manufactures the power supply, the case, and related components. The case is made of heavy gauge steel and uses 2 rack spaces. Yea, that's right, you rack mount the drive. Supporting the drive internally is a patented shock mount designed to keep everything in one piece during your road tour and the power supply is rugged, powerful, and accurate. I still recommend a surge/spike protector on all computer gear. The front panel has the cartridge opening where a 44 megabyte Syquest cartridge goes. Just below the access door are the drive transport controls (spin/stop/and eject). To the left of the drive on the panel is the main power switch and both the drive and front panel have lights to indicate servo speed and head(data) access. The rear panel has two parallel 50 pin SCSI connectors, a universal AC connector, and a push button SCSI device ID selector (0-7). Syquest uses an 8k cache which makes the already fast 20ms access time come down even further to around 16ms. Archiving samples to a separate disk is also a smart idea. The possibilities are endless. Since cartridges interchange, so do operating systems. Use the same drive for different instruments.

Anyone who offers Syquest will have the same drive but the related components will all be different as per each manufacturer. Also be aware that engineering levels on drives change. If a bug was found or a change was made to make the drive better, you might not be getting the latest drive revision.

When my RX-2 arrived two days (I) after my order, I wired everything per the manuals. I did have some problems with data access. My keyboard, the Ensonia EPS wouldn't read or write to the RX-2. I called Eltekon and within minutes found out what the problem was. I needed a terminator (a resistor pack) on the EPS to stop data from ringing or echoing within the cable. This is a common problem with SCSI systems and it prevents the accurate transmission of data to and from the equipment. The next day, I had a terminator delivered by Federal Express. Once installed, the problems disappeared. The point is Eltekon spent a lot of time with me and helped me get the system going. I have not had that happen very frequently. The drive runs great, the access time is seconds for samples and the reliability is perfect. I'm thinking about adding an additional fixed drive in to the same case as the Syquest. Eltekon says it's easy to do. Hey, it's only money, right?

### USER GROUPS

MAC/EPS USER GROUP FORMING. If you are interested in trading EPS samples, send me your sound list. If you have a Mac and an EPS w/SCSI, I REALLY would like to hear from you. Jeff (408) 946-6743.

I'd be interested to talk to anyone in Perth, Western Australia who owns an EPS or Mirage (I couldn't bring myself to part with mine) who wants to swap/trade ideas/sounds or just talk about the Mirage/EPS or ESQ-1, Phone: 380-3574.

Looking for VFX owners to establish Users' Group. Anyone interested in exchanging patches by mail please send name, address, phone number and patch list to: Bradley Kaufman, 11-26 Saddle River Road, Fair Lawn, NJ 07410. (201) 796-0300.

The Hacker is compiling a list of Ensoniq user groups. If your group would like to be included, please send us your group name, address, contact, phone number, instruments covered, and any additional info you feel is pertinent.

#### SAMPLES

Trade EPS sounds by mail. I have a large 700,000 Block library, many killer PD & homemade samples. Send your list. Craig Duncan, PO Box 83211, Los Angeles, CA 90083. Home: 213-645-4181, Work: 213-828-4911.

Medieval and Renaissance Instrument Samples! New 12-bit EPS versions and 8-bit Mirage versions available: Lute, Medieval Harp, Viols, Dulcimers, Handbells, Pipe Organs, Krumhorns, Rebec, many more. Please specify sampler. Barry Carson, Minotaur Studios, 52 State Street, Canton, NY 13617.

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Mirage samples: created with input sampling filteryielding 50 kHz. Also custom services, 400 sounds. Listings: \$1.00. Demo tape: \$6.00 (includes listings). Mr. Wavesample, 162 Maple Place, Keyport, NJ 07735, 201-264-3512. Make checks payable to Jack C. Loesch.

#### EQUIPMENT

EPS 2X Memory Expander - New condition. \$95 or trade for EPS samples. Fournier Enterprises, 301 W Jersey St., Elizabeth, NJ 07202.

SQ-80 w/10,000 patches + 1 RAM: \$950. 40 Meg SCSI drive: \$350. Simmons MIDI 8 channel stereo mixer: \$275. Mac MIDI interfaces: 2in/6out: \$60, 1in/1out: \$40. EPS 2X expander; \$70. MXR Phase 100: \$80. Jeff, 408-946-6743.

Mirage keyboard with disks, dustcover, and IBM VES; \$575, obo. Mint condition. Phone: 609-346-0943.

EPS-ME1A, SCSI able, 2X expander: \$100. OEX expander (8-out): \$100. SQ-80 synth, all sounds in the known universe, latest software: \$1000. (719) 471-7193.

EPS 2X Memory Expander. 6 mo. old. \$100. Free shipping & box of formatted 3M disks. First cashiers check gets it. Mitch Marhanka, 3877 S US 35, LaPorte, IN 46350.

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EXPANDERS: 4X EPS, \$389.00. VFXSD, \$279. AKAI; YAMAHA, KORG. 44MB removable SCSI drive, \$995. RAM CARTRIDGES: VFX, \$99.95; ESQ/SQ80, \$39.95 (80-Voice); K1, \$49.95; KORG; YAMAHA. FREE shipping. Complete stock!! SOUND LOGIC, 1125 Eleventh Street, Ramona, CA 92065. (619) 789-6558 (Info); (800) 753-6558 (Orders).

#### WANTED

Does any fellow Hacker out there have an IVM board or Megabank board (with of without the Mirage) for sale? Joseph, 602-866-3880.

Digidesign or Alchemy wavesample editor for the Mac. w/docs. Jeff, (408) 946-6743.

#### SOFTWARE

EPS-Sense: IBM-PC Sound Editing System for the EPS/EPS-M reviewed in Issue #50 of TH. \$50.00 ÷ \$5.00 s/h. Jeffrey Richter/Donna Murray, 3502 Village Bridge Apts., Linderwold, NJ 08021, Phone: 609-346-0943.

Mac MasterTracks Pro 3.4 with original docs and disc: \$150. Beaverton Digital ESQ/SQ-80 editor/ librarian with random patch generator: \$55. Master-Tracks Pro Vers. 1.0: \$40. Jeff, 408-946-6743.

#### PATCHES/SOUNDS

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ESQ-1 original VALHALA 320-voice ROM (ROM 3201) and CESIUM SOUND 80-voice Cartridge A. Both for \$60. First takes all! Vincent, (305) 970-0667 days, (305) 987-8538 eves. Check or MO: 1710 N 41st Ave., Hollywood, FL 33021.

NEW WAVEFORMS for the ESQ-11 Soundset 3, programmed by Sam Mims, brings a host of new waves - and 40 amazing new sounds - to the ESQ-1 using operating system 3.5 (not compatible with ESQ-Ms, SQ-80s, or earlier operating systems), Many D-50-type ambient sounds, all outlined in accompanying 22-page booklet. Available on data cassette or Mirage-format disk for \$17.95, or on 80-voice EEPROM (40 voices blank) for \$59.95. Syntaur Productions, 11116 Aqua Vista #2, North

Hollywood, CA 91602, Phone: 818-769-4395.

5,056+ DX711FD/DXTX7Sounds \$29.95. SQ-80/ ESQ-1: 840 Super Sounds \$19.95, 1,030 NEWI V50/DX11/TX81Z/YS200/DX1002127 Sounds \$29.95. P/H \$3.00. MUSIC WORLD, 617 Panorama Dr., Grand Junction, CO 81503.

#### SEQUENCES

VFX-SD Sequences IIIIII Coming soon to L.B. Music. See our ad in this issue.

#### DOCUMENTATION

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Photocopies of out-of-print past issues of the Hacker can be obtained by calling Jack Loesch, 201-264-3512 after 6 pm EST.

Folks in the New York City area can get copies of unavailable back issues of the Hacker - call Jordan Scott, 212-995-0989.

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#### Current Ensonia O.S.s **EPS** 2.4 EPS-M 2.4 MASOS 2.0 MIRAGE 3.2 3.5 ESQ ESQ-M 1.2 SQ-80 1.8 2.1 VFX VFX-SD 2.0 SQ-1 1.0

## VFX Hackerpatch

#### **VFX Prog: CLAVMATIC**

Notes: Select 00 has CLAV-WAVE & CLAV-VAR velocity cross-faded; key pressure brings in OMEGA-X wave. 0\* has the same clav sound with added sine wave for thicker sound; pressure brings in the PULSE.1-X transwave. \*0 is a clavpiano with flange & delay; pressure brings in the PULSE.1-X transwave. \*\* is the same flanged clavpiano & delay, with added sinewave; pressure brings in both OMEGA-X & PULSE.1-X.

The Hack: This one is big 'n beefy. The fade-in of other sounds with key pressure is a nice touch, though they seem to come in a bit loud for

WAVES	1	2	3	4	5	6
Wave	Clav-wave	Omega-x	Sinewave	Clav-var	Clavpiano	Pulse.1-x
Wave Class	Waveform	Transwave	Waveform	Waveform	String	Transway
Delay	0	·	0	0	0	0
Start -	22	20			0	20
Moderc		Press			0	Press
Modamt		+99			Forward	+99
	43	250	25	9	20	82.0
SRC-1	1	2	3	4	5	6
SRC-2						
SRC-2 Scale						
Shape			101114	in de la	Ser of the	
PITCH	1	2	3	4	5	6
Octave	0	0	0	0	0	-1
Semitone	0	0	+07	0	0	0
Fine	o	0	0	0	0	0
Pitch Table	System	System	System	System	System	System
Tribut Table	System	System	System	Cyalem	System	System
PITCH MODS	1	2	3	4	5	6
MODSRC	OII	Off	Off	Off	110	Off
MODAMT	*	•	*			
Glide	None	None	None	None	None	None
ENV1	0	0	0	0	0	0
LFO1	+04	+04	+04	+04	+04	+04
FILTER 1	1 -000	2	3	4	5	6
Mode	LP-2	LP-2	LP-2	LP-2	LP-2	LP-2
Cutoff	000	127	000	000	000	127
KBD	+80	0	+80	+80	+80	0
MODSCR	Off	Off	Off	Off	Off	Off
MODAMT			-	011	0,11	011
ENV2	+99	0	+99	+99	+99	0
	020	2	1920) 10	041	200	121
FILTER 2	1		3	4	5	6
Mode	HP-2	ST-3211717	HP-2	HP-2	HP-2	HP-2
Cutoff	000		000	000	000	000
KBD	0		0	0	0	0
MODSCR	Off	Off	Off	Off	Off	Off
MODAMT					*	
ENV2	0	0	0	0	0	0
OUTPUT	1	2	3	4	5	6
VOL	95		~~~	95	65	88
MODSRC	Off	THE RESERVE TO SERVE THE PARTY OF THE PARTY	Off	TO 11	Off	Press
MODAMT		+99	500	1000	200	+99
KBD Scale	0	25/75/201	0	0	0	0
LO/HI Key	and the second	•	* revolution relief		- Commence	FOURTH
Dest Bus	FX2	FX2	FX2	FX2	FX1	FX1
Pan	50		50	50	50	50
MODSRC			Keybd		Keybd	Lfo
MODAMT	+99		-99	-99	-99	+06
Pre-Gain	Off				Ön	Off
Voice Prior					Med	Med
Vel Thresh			0		0	0
FO	1					
Rate					5	6
	10771000				34	34
MODAMT					OH	- 011
Level	00	0		0	0	0
MODSRC						Press
				0	0	0
Delay					The last and had not been any	Water Control
Waveshape		Sin/Tri	Tri	Tri	Tri	Sin/Tri
	Tri			Tri	Tri On	Sin/Tri Off

#### By: STEVE MUNROE, Guilder Center, NY

me. I therefore changed the OUTPUT VOL of voices 2 and 6 (OMEGA-X and PULSE.1-X) to 50 for a more subtle effect. The key pressure also modulates the transwaves themselves, giving the sound a great deal of timbral motion. Note that with the 0° patch select, only the aftertouch effect is echoed (by routing it to FX1). Pretty cool. - Sam Mims

00	1	22	3	4	5	6
)*	1	2	3	43	5	65
0	1	2	3	4	8	(6)
**	1	22	23	4	95	65

ENV1	1	2	3	4	5	6
Initial						THE REAL PROPERTY.
Peak						
Break 1						
Break 2						
Sustain				27010	SULW	22570
Attack		2000	W. 100		33.50	
Decay 1						
Decay 2						
Decay 3						
Release						
KBD Track	1000000		10000			
Vel Curve						
Mode						
Vel-Level						
Vel-Attack						

NV2	1	2	3	4	5	6
Initial	99	0	99	99	99	0
Peak	99	99	99	99	99	99
Break 1	0	99	0	0	0	99
Break 2	0	99	0	0	0	99
Sustain	0	99	0	0	0	99
Attack	10	0	10	10	10	0
Decay 1	62	0	62	62	62	0
Decay 2	20	0	20	20	20	0
Decay 3	20	0	20	20	20	0
Release	16	20	16	16	16	20
KBD Track	0	0	0	0	0	0
Vel Curve	Quikr	Lin	Quikr	Quikr	Qulkr	Lin
Mode	Norm	Norm	Norm	Norm	Norm	Norm
Vel-Level	0	0	0	0	0	0
Vel-Attack	0	0	0	0	0	0

ENV3	1	2	3	4	5	6
Initial	99	0	99	99	99	0
Peak	99	99	99	99	99	99
Break 1	25	99	25	25	25	99
Break 2	26	99	26	26	26	99
Sustain	0	99	0	0	0	99
Attack	10	0	10	10	10	0
Decay 1	62	0	62	62	62	0
Decay 2	20	0	20	20	20	0
Decay 3	20	0	20	20	20	0
Release	16	20	16	16	16	20
KBD Track	0	0	0	0	0	0
Vel Curve	Quikr	Lin	Quikr	Quikr	Qulkr	Lin
Mode	Norm	Norm	Norm	Norm	Norm	Norm
Vel-Level	0	0	0	0	0	0
Vel-Attack	0	0	0	0	0	0

PGM CONTRO	)L	
Pitch Table	OII	
Bend Range	02	
Delay	X1	
Restrike	40	
Glide Time	0	

langer rate	50
/lin	050
Aax	100
eedback	-75

Effect	Fing + Dly + Rev2
FX1	25
FX2	50

Delay Time	400
Regen	+50
Mix	10
HF cut	Off

ERFORM	ANCE
Timbre	
Release	

## Hackerpatch

By Sam Mims

HACKERPATCH is intended to be a place where patch vendors can show their wares and musicians can share their goodles and impress their friends. Patches designated "ESQ-1" will also work on the SQ-80. The reverse is not always true. Once something's published here, it's free for all. Please don't submit patches that you know to be minor tweaks on 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—our resident patch analyst. If you send in a patch, PLEASE include your phone number. Requests for particular patches are also very welcome.

Last month, Scott Crafton was searching for a steel guitar patch. I have had several people ask me about one as well, and while I haven't had time to try my hand at it, I'll pass on some tips. First, I heard an amazing simulation of steel playing done with a DX7, volume pedal, and clever use of the pitch bend wheel. A stock Rhodes-type patch was used, and I would have sworn it was a real pedal steel. It just goes to show that playing technique is the most important factor in emulating many sounds; the patch itself is secondary.

On the SQ-80, it is possible to do the single note slides within a chord by programming PRESSURE as a pitch modulator, such that pressing hard on the key bends up a whole step. Use the CV pedal, or the mod wheel, to control volume (to fade in chords), and you're off to a good start. Steel players often use chorus and reverb as well, so piping the sound through these effects would help out too.

**ESQ Patch: SIMMON** 

by Tim Edwards, Durham, NC

Do you really need another Simmons drum sound? Anyway, here's one. ENV 3 gives a delay effect to the sound. On my synth, LFO 3 causes OSC 2 to have a tambourine-like sound on C and C# above middle-C. Does this work on all ESQ-1's? Moving the mod wheel gets rid of the effect when desired. You can set this up as a split program, with the lower sound being the factory KICK (Split Key=41).

#### The Hack

I don't personally use many Simmons drum sounds, but if I did, this would be the one. The "tambourine" sound is a remnant of the NOISE2 wave; LFO 3 is essentially modulating the waveform higher up the keyboard, as the LFO is a square wave with a frequency close to zero - i.e. it doesn't really oscillate (until the sound has died out anyway). By reducing the DEPTH of MOD #2 of OSC 2, these two funny notes can be moved around, but due to the digital nature of the noise waveforms (they are not true random noise), this glitch can never be completely eliminated.

T2 of ENV 3 acts as a pre-delay to the pseudo-reverb; you may want to alter this parameter to suit your tastes.

ESQ Patch: LAME 2

by A. R. T. Gven, Paris, France

This patch sounds somewhat like an accordion.

#### The Hack

It sounds a lot like one to me. (Remember the Gary Larson cartoon, where an angel is handing out harps to everyone going into heaven, and a devil is handing out accordions to everyone going into hell?) I tried changing the VOICE2 waveforms to VOICE1 for a somewhat different timbre, and also turned AM On for the sound of an accordion being played several blocks away (perhaps the best way to play one), but all in all, I like the original patch the best. Like a real accordion, it does have its charm.

ESQ Patch: GGPN4

by Glen Gafter, Kent, OH

This is a synthesized plano sound. You might want to add a moderate bit of reverb to it.

#### The Hack

GGPN4 is somewhat piano-ish, but it really has a unique character that I like quite a bit. It's very dark when played lightly, but velocity really opens the sound up. My only complaint was that the sound tended to decay unnaturally while notes were sustained, ending them rather abruptly, so I went to ENV 3 (which is controlling the filter) and changed L3 to +51 and T3 to 54.

A subtle variation of this sound that I like was obtained just by switching AM On. And, like 95 percent of the noises in this world, GGPN4 does indeed sound better with a bit of reverb. In fact, if you don't own a digital 'verb, you should seriously consider getting one. They're mighty cheap these days, and they can really wake up your keyboard sounds.

SQ-80 Patch: ZTRING

by Kirk Slinkard, Lakewood, CO

This is an attempt to copy Tangerine Dream's resonant string-like sound at the beginning of the movie "Legend."

#### The Hack

ZTRING sounds like it should be used in a film score. It's nice and ambient, and somewhat ethereal. The CV pedal closes down the filter a bit, affording more expression from the sound. LFO 3 creates a stereo panning motion, but with the frequency set at 01, it was hardly noticeable. So, I set the frequency at 09 instead. If you want more the sound of a solo ztring (what the heck is one, anyway?), try turning SYNC (MODES page) on.

To see how this converts to an ESQ, I tried different waveforms for OSC 2. The PIANO wave sounds very close, and in fact, I like it better than the CLAV as it sounds fuller. So substitute this wave, ignore the L's and R's in the envelopes, and the patch ports right over to the ESQ.



Bio: Sam Mims is a studio session player and programmer in Los Angeles, and is keyboardist for Richard Elliot. He owns Syntaur Productions, a company that produces music for film and TV and markets sounds for Ensoniq keyboards.

PRO	G: SIN	IMO	1				BY: T	IM EC	WARDS
ост	SEMI	FINI	E WA	VE MO	D#1 D	EPTH	MO	D#2	DEPTH
0	0	4	NOI	SE2 ENV	3 +	63	OFF		-
+4	0	0	NOI	SE2 KYB	D2 -	63	LFO	3	+63
-3	0	5	SIN	E SNV	1 +	48	OFF		-
LEVE	EL O	UTPU	T M	OD#1 [	DEPTH	MOI	0#2	DEP	гн
56	- 01	N N	OF	Р .		OFF		-	
57	01	NF .	or	Р .		OFF		-	marga I
29	01	K	ZM	V1 ·	48	OFF		-	
FREC	9 0	KEY	BD I	MOD#1	DEPT	H M	OD#2	DE	РТН
17	0/	13	- 1	EVE3	+63	VE	L	+11	
FINAL	VOL	PAI	PA	N MOD	DEP	н			
6.3		. 8	OI	'Y	-	1.6			1000
FREQ	RE	SET	HUM	AN WA	V L1	DE	LAY	L2	MOD
-	-	24121	-		-	*		-	-
-	-			-	-				-
1	ON		OFF	SQE	63	0		20	WHEEL
LI	L2	L3	LV	TIV	T1	T2	T3	T4	TK
+63	~63	-28	33	47	13	36	29	30	0
-	-	-	7.	+	-	#		-	
+63	0	+47	3	17	0	14	0	34	9
+63	+54	+11	0	8	4	3	30	46	4
SYN	C A	u i	ONO	GLIDE	VC	ENV	os	c c	YC
OFF	08	T C	FF	0	ON	CON	OFF	0	N
AYER	S/L PI	RG I	AYER	L PRG	SPLI	SP	RG	SPLF	KEY
			OF P		OFF	- 2		-	
									The state of
	OCT 0 +4 -3 LEVI 56 57 29 FREC 17 FINAL 63 FREQ - 1 +63 - +63 +63 +63 SYNI OFF	OCT SEMI  0 0 +4 0 -3 0  LEVEL 0 56 00 57 00 29 00  FREQ Q 17 0  FINAL VOL 63  FREQ RE:	OCT SEMI FINE 0 0 4 +4 0 0 0 -3 0 5  LEVEL OUTPU 56 ON 57 ON 29 OX  FREQ Q KEY 17 0 13  FINAL VOL PAN 63 0 FREQ RESET	0	OCT SEMI FINE WAVE MO  0 0 4 NOISE2 ENV +4 0 0 NOISE2 ENV +4 0 0 NOISE2 ENV -3 0 5 SINE ENV  LEVEL OUTPUT MOD#1 I 56 ON OPP 29 ON OPP 29 ON ENVI 17 0 13 ENV  FREQ Q KEYBD MOD#1 17 0 13 ENV  FREQ RESET HUMAN WA	OCT SEMI FINE WAVE MOD#1 D	OCT SEMI FINE WAVE MOD#1 DEPTH  0 0 4 NOISE2 ENV3 +63 +4 0 0 NOISE2 ENV3 +63 -3 0 5 SINE ENV1 +48  LEVEL OUTPUT MOD#1 DEPTH MOD 56 ON OPP - OPP 29 ON ENV1 +48 OPP 29 ON ENV1 +48 OPP  FREQ Q KEYBD MOD#1 DEPTH M 17 0 13 ENV3 +63 VE  FINAL VOL PAN PAN MOD DEPTH 63 8 OPF -  FREQ RESET HUMAN WAV L1 DE	OCT SEMI FINE WAVE MOD#1 DEPTH MOD#1	OCT SEMI FINE WAVE MOD#1 DEPTH MOD#2

ESQ-1	PROC	i: LAN	AE 2					BY	А.Н.	T. GV
	OCT	SEMI	FINE	WAVE	MO	D#1	DEPTH	MOI	0#2	DEPT
OSC 1	-1	0	0	SAW	OFF		-	OFF		-
OSC 2	-1	0	2	VOICE	2 OFF	1	-	ENV		-2
OSC 3	0	0	4	VOICE	2 OFF		2	OFF		-
	LEVE	L O	лецт	MOI	0#1	DEPTH	H MOI	0#2	DEP	TH
DCA 1	61	ON	2011	OFF		-	PED	AI.	-23	100
DCA 2	63	ON		KYBU	2	-12	PEDA	AL	-5	
DCA 3	63	ON		BNV	1	+63	OFF		-	
	FREC	0	KEY	D M	OD#1	DEP	TH M	OD#2	DE	ртн
FILTER	112	3	0	SN	V3	+6	28	DAL	-42	
	FINAL	VOL	PAN	PAN	MOD	DE	РТН			
DCA 4	63	1.00	11	LFO	441.4	-3	-			
	FREQ	RES	ET	HUMAN	w	v ı	1 DE	AY	12	MOD
LFO 1	-	-	-	-	-	-	-		-	-
LFO 2		-			E-1	-			-	-
LFO 3	9	GPF		ON	79.	1 5	0 0		50	PEDA
	LI	L2	L3	LV	TIV	TI	T2	тз	T4	TK
ENV 1	+16	0	0	30	0	9	19	3	20	9
ENV 2	+46	+63	+63	0	0	0	8	63	12	0
ENV 3	+62	+17	+1.7	0	22	46	44	63	37	9
ENV 4	+42	+61	+43	27	18	15	21	63	9	9
	SYN	C AN	M M	ONO (	GLIDE	VC	ENV	osc	0	YC
	OFF	OF	P OF	P	0	ON	OPT	OFF	0	PP
MODES			20			emi		RG	on n	·vev
MODES SPLIT/L	AYER	S/L PF	IG L	AYER	L PRG	SPL	31 OF	no.	SPLI	KEY

ESQ-1	PROC	3: GG	PN 4	4					BY:	GLEN	GAFTER
	ост	SEMI	FIN	E WA	VE M	D#1	DE	РТН	MO	D#2	DEPTH
OSC 1	-1	0	3	ELP	NO LF	01	+3		OFF	,	-
OSC 2	0	C	C	188	L LF	01	-3		OFF		*
OSC 3	-1	0	5	PIA	NO OF	7	-		OFF	,	-
	LEVE	L O	UTPL	IT M	OD#1	DEPT	н	MOL	)#2	DEP	TH
DCA 1	5.5	OK		VZ	1.2	-4	-	BNVI		+45	1
DCA 2	39	ON	*	VE	1.2	+52		ENV1		+59	100
DCA 3	63	ON		513	V2	+52		KYBD		+19	
	FREQ	0	KE	YBD	MOD#1	DEP	тн	MC	D#2	DE	РТН
FILTER		7	0	R. 700 J.	ENV3	+63	***	EN	-	+2	
	FINAL	WOL	na		H MAD	nr.	n.		W		
DCA 4	63	VOL	PA		N MOD	-	threshold	1			
DCA 4	63		6:	L	03	9.9	3				
	FREQ	RES	ET	HUM	N W	AV I	.1	DEL	AY	L2	MOD
LFO 1	20	OPP		OFF	Ti	1 3	1	0		0	WHEEL
LFO 2	H	12		-	-	2				-	-
LFO 3	10	OFF		ON	80	B 6	53	0		63	OFF
	LI	L2	L3	LV	TIV	TI	1	12	T3	T4	TK
ENV 1	+63	+63	+63	43	0	11	-	17	63	39	0
ENV 2	+63	-35	-33	57	0	0	-8	14	0	25	63
ENV 3	+63	+63	+10	43	22	0	12	13	42	31	15
ENV 4	+41	+63	0	16	0	0	1	1	57	28	43
	massipad	AN	. ,	ONO	GLIDE	VC	1	NV	ose	c c	YC
	SYNC			THE RESIDENCE IN	-	OFF	_	PF.	DM	The state of the s	PP
MODES	ON	OF	r (	OPP	0	.02.2		4,400			
MODES SPLIT/L	ON	2.400		LAYER	L PRO	5 5 3 3 3		-18	RG	SPLI	KEY

34-00	PROG	: ZTF	RING				В	Y: KII	RK SL	INKAR
	ост	SEMI	FINE	WAVE	MOD#1	DE	PTH	MO	D#2	DEPTH
OSC 1	-1	0	1	VOICE2	1301	+1		OFF		-
OSC 2	-1	0	3	CLAV	LFO1	-1		RNV	1	+3
OSC 3	-2	11	30	PULSE2	LFO2	+1	_	OFF		
	LEVE	L O	UTPUT	MOD#	1 DEP	тн	MOD	#2	DEPT	гн
DCA 1	5.7	ON		OFF	-		OFF	-	H .	
DCA 2	57	OH		OFF	-		OFF			
DCA 3	52	ON		OPF			OFF		+	
	FREQ	Q	KEY	BD MOD	#1 DE	PTH	MC	D#2	DE	РТН
FILTER		24	49	ENV2	1000		4,517,7	DAL	-15	
		1		1						
	FINAL	VOL	PAN	PAN M	OD D	EPTH	1			
DCA 4	63	20,000	B	V 200 A 200						
	1100			T&C3		+63				
		72323	electric.	contradiction	103888	W.C.		200	To a	2000
	FREQ	RES	SET	HUMAN	WAV	Li	DEL	AY	L2	MOD
PP DUST OF THE	20	OFF	SET	HUMAN ON	WAV	L1 0	20	AY	L2 31	WHEEL
LFO 2	20	OFF	SET	HUMAN ON	WAV TRI TRI	L1 0 0	20 28	АУ	31	WHEEL WHEEL
LFO 2	20	OFF	SET	HUMAN ON	WAV	L1 0	20	AY		WHEEL
LFO 2 LFO 3	20	OFF	SET	HUMAN ON	WAV TRI TRI	L1 0 0 63	20 28	AY T3	31	WHEEL WHEEL
LFO 2 LFO 3	20 22 1 L1	OFF OFF OFF	SET	HUMAN ON OK LV T1	WAV TRI TRI TRI  V T1	L1 0 0 63	20 28 0		31 4 0	WHEEL WHEEL OPP
LFO 2 LFO 3 ENV 1 ENV 2	20 22 1	OFF OFF	SET L3	HUMAN ON ON ON	WAV TRI TRI TRI TRI	L1 0 0 63	20 28 0	Т3	31 4 0	WHEEL WHEEL OPP TK
LFO 2 LFO 3 ENV 1 ENV 2 ENV 3	20 22 1 L1 -50 -6	OFF OFF OFF	L3 0	HUMAN ON	WAV TRI TRI TRI  V T1 0 0	L1 0 0 63	20 28 0	T3 27	31 4 0 T4	WHEEL WHEEL OPP TK 9
LFO 1 LFO 2 LFO 3 ENV 1 ENV 2 ENV 3 ENV 4	20 22 1 L1	OFF OFF OFF	ET L3	HUMAN ON OK LV T1	WAV TRI TRI TRI  V T1 0 0	L1 0 0 63	20 28 0	T3 27	31 4 0 T4	WHEEL WHEEL OPP TK 9 0
LFO 2 LFO 3 ENV 1 ENV 2 ENV 3 ENV 4	20 22 1 L1 -50 -6 - +51	OFF OFF OFF L2 0 0 - +61	E3 0 0 +43	HUMAN ON ON  LV T1 30L 0 OL 0	WAV TRI TRI TRI  V T1 0 0	L1 0 0 63	20 28 0 72 17	T3 27 0 -	31 4 0 74 28 0 - 34R	WHEEL WHEEL OPP TK 9 0
LFO 2 LFO 3 ENV 1 ENV 2 ENV 3 ENV 4	20 22 1 L1 -50 -6 - +51	OFF OFF OFF L2 0 0 - +61	E3 0 0 +43	HUMAN ON ON LV T1 30L 0 OL 0	WAV TRI TRI TRI O O O O O O O O O O O O O O O O O O O	L1 0 63	20 28 0 72 17 32	T3 27 0 - 63	31 4 0 74 28 0 - 34R	WHEEL OPP TK 9 0 - 9
LFO 2 LFO 3 ENV 1 ENV 2 ENV 3	20 22 1 L1 -50 -6 - +51 SYNC	OFF OFF OFF L2 0 0 - +61	L3 0 0 -+43	HUMAN ON ON ON ON ON OL OL O 22L 42 ONO GL F 0	WAV TRI TRI TRI O O O O O O O O O O O O O O O O O O O	L1 0 63	20 28 0 72 17 32 - 41	T3 27 0 - 63 OSC OPP	31 4 0 74 28 0 - 34R	WHEEL, WHEEL OFF  TK 9 0 - 9

## The Interface

Letters for The Interface may be sent to any of the following addresses:
U.S. Mail - The Interface, Transoniq Hacker, 1402 SW Upland Dr., Portland, OR 97221
Electronic mail - GEnie Network: TRANSONIQ, CompuServe: 73260,3353, or PAN: TRANSONIQ.
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).

Dear Hacker,

I have been the proud owner of an SQ-80 for two years now and I have finally decided to expand its possibilities by buying third party software for it in the form of sound banks and computer programs. Your reviews of patches are really helpful in this matter.

However, I didn't see much in the way of editors for SQ-80 sounds or sequences. I own a 2 Meg Macintosh SE with a 40 Meg hard drive. Does such programs exist for my poor orphan synth on the Mac? What are the programs available at the moment that would allow me to edit sounds and/or sequences? Could you give me the names and addresses? Does Beaverton Digital still exist, for example?

On another subject, my SQ-80 has been developing a small problem lately. Some patches occasionally lose something in their sound. A good example of this is the TYMPN3 patch on the Maartists Music Pack. Sometimes only the right side plays, other times almost nothing can be heard! Certain patches seem to lose a LFO... Only some sounds are affected by this and then only at certain times. The factory patches don't seem to be affected. The problem started when I first got my cartridge. I've tried re-initializing, tuning and rebooting and the only thing that seems to clear the problem is to leave the synth for a day and come back later. (I have OS 1.8)

What could be the cause? A bad connection? A chip going? While on the subject of repairs, how long will Ensoniq offer service for the SQ-80 should it fail? Is my synth and its parts still supported by Ensoniq now that they stopped production? And if so, for how long?

Concerning third party patches, why didn't the Hacker review Cesium sounds after the first not-too-good review in TH #31? They have produced so many since then and they give the impression of being very professional. My dealer also tells me that Ensoniq issued 5 disks of patches for the SQ-80 but of course he has none of them! Is it true? Are they still available and why didn't the Hacker review disks 3 to 5 since SQ-80 specific sounds are so rare? Ensoniq, can I order those directly from you?

Is there still anybody out there making new sounds for the SQ-80 or ESQ-1?

In closing, I'd like to offer my thoughts on the SQ-80. I have always felt left out with this synth. Since its birth it has been overshadowed by its successful predecessor

the ESQ-1 and its great cousin the EPS. After only a year or so, it was killed and replaced by the bug-ridden VFX. It never seemed to lift off. It certainly never had its day in the sun! Was it the less successful Ensoniq keyboard? How many SQ-80 owners are we anyway? I, for one, still feel It was the best buy for the money. It's a great synth and I want to keep it. I am now interested in buying a second synth but without the keyboard. The only interesting one out there is the Korg M1R. Sure would be nice to get that VFX in rack form... Here's another request for you Ensonial For the moment, I'll just wait for my new

Keep up the GREAT work TH! You are vital to us!

Mark Lyth Compuserve (76046,1467) Quebec, Canada

[CS - As far as third party sounds are concerned, a glance through a few back issues of the TH should point you in the direction of a number of companies marketing sounds for your unit. Eye and I productions, Valhala, MidiMouse, Softworx, and many others have advertised sounds for the SQ-80. And yes, you can order sounds directly from Ensoniq..

As far as I can tell, Beaverton Digital is no longer in business. And I have seen no SQ-80-specific editor types of programs for any computer (although there are a couple of universal librarian programs available such as Opcode's "Galaxy" for the Mac and Dr. T's "X-OR" for the Atari ST). That doesn't mean that editors don't exist, however, If anyone out there knows of this type of program, the Hacker would love to hear from you.

Regarding your problem with the Maartists cartridge, the only thing we can come up with is a guess that you may have a weak battery or a corrupted area of memory in the cartridge itself (assuming that it's a RAM cartridge, which may not be the case). In any event, if the problem seems to be only with specific voices in the Maartists cartridge, I'd suggest you contact Maartists directly to see if they can shed any light.)

[Ensoniq - Another source for sounds is the classified sections of most other music magazines such as Keyboard and Electronic Musician. In particular Keyboard Magazine, January 1989, was devoted to third-party sounds and editor/librarian packages. The listings are too long to reprint here but it is the most current source we have seen.

We still sell the VPC 1-11 cartridges for the ESQ-1/SQ-80 (\$49.95 each) as well as the VSD 1-5 disks (\$19.95 each) you mentioned. Any of our dealers can order them for you, but many dealers choose not to stock accessories for discontinued models. You can purchase these sounds from us for the listed prices plus \$5.00 shipping and handling. Write to: Ensoniq, Accessory Department, 155 Great Valley Parkway, Malvern, PA 19355. Or call 1-800-553-5151.

Regarding the cartridge problem, try loading the voices into internal memory and see if they behave properly. If they do then the problem would seem to be with the cartridge and we're sure Maartists can take care of it.

The SQ-80 was well-received and we are proud of the instrument. It was always sidered to be an incremental follow-up to the ESQ-1 and with the introduction of the VFX and VFX-SD synthesizers demand dropped off considerably. We will continue to service all of our products regardless of whether they are in production or not. Don't worry, you've got a great synth and we'll continue to be here for you.]

[TH - Any and all third-party voices/samples that we receive from vendors go out for review. We'd like to be publishing more reviews of SQ-80 sounds but, unfortunately, we don't have much of a budget for acquisition and must depend on the third-party folks to take action. We did have a review of Mescai Music's SQ-80 sounds in Issue #46 and Cesium's VFX patches were reviewed In Issue #59. Send 'em in, folks.)

Dear Sir.

I am extremely disappointed that the normally high editorial standards that we have come to expect have slipped to the extent 1 allowing Michael Mortifla's review of the LZE program to be published in TH #57, March, 1990. It is obvious that Michael has a faulty or intermittently faulty EPS, which has led to a lot of the problems he described. No software program in the world is able to make an EPS not function once the power has been turned off and back on, therefore completely reinitializing the system. Michael has not realized this and has allowed his faulty EPS to color the review of the EZE program.

Furthermore, while he may be the Senior Musician and Lecturer in the Dramatic Arts Department for UC at Santa Barbara, my own impression is that he concentrates more on dramatic arts than on music. His review is too busy being bitchy and elitist to properly review this product. For a start, he doesn't seem to realize the purpose behind

any visual editing program. They are not meant to replace the front panel controls of any synthesizer or sampler, rather they are designed to help utilize the full facilities of the machine more easily and more quickly. This standard is never applied by Michael anywhere in his review.

He also doesn't seem to realize that this is the first visual editor for a sampler that has complete front panel controls. The EZE program allows you to easily create and change envelopes (a very long procedure on the EPS), edit filter and modulation settings and, quite importantly, allows you to see instantly the status of a particular sample or group of samples within a layer or group of layers. EZE recognizes that not every one is a power user who knows the machine backwards. For instance, the reviewer refers to certain dialogue boxes as being "downright insulting, perhaps patronizing is a better word" when in fact the complaint of many people with editing programs is that the dialogue boxes are too claver or too complex.

The company whom I represent, the Electric Factory, distributes the EZE visual editor throughout Australia and New Zealand. We have had nothing to do with its design and are not related in any way to Gelva software. We have not had a single complaint from any EZE customer. Rather, we have had compliments and praise from people who regard it as one of the most logical, easy to use, and powerful visual editing systems around.

I am not writing this letter simply because I think that Transoniq Hacker has published a review with which I disagree. I am motivated by the fact that an obviously bad piece of writing, using an obviously bad EPS, was allowed to slip through what should be tighter editorial scrutiny.

Yours faithfully, John McCubbery Keyboard Products Manager Electric Factory 188 Plenty Road Preston Vic., Australia

Mike's response - First, I would like to nank the Hacker for allowing me to respond. The fact that John's letter will appear proves that the high editorial standard has not slipped and the accusation does seem to be sour grapes. The New York Times panned "Hello, Dolly!" during premieres! Would you say their standards slipped? Reviews are based partly on fact and partly on opinion. Don't place blame on the editors because they faithfully reproduced what the reviewer wrote. I firmly believe that the Hacker is an advocate of free speech. Inferring that they should have censored an adverse review is, in my mind, a very serious arrogation. That said, I will now respond to the slings and arrows.

The EPS in my possession does not belong

to me but, rather, to Ensoniq! It is on loan for a series of film projects in exchange for screen credit and is in perfect condition. Ensoniq has been diligent in keeping the unit in perfect working order. It has performed flawlessly for twelve films and responds well to every program and command sent by the Atari or the SMPTE sync boxes. I called Ensoniq after the EZE crash and was told that the symptoms described the EPS in its diagnostics mode. Somehow, EZE told the EPS to go into that mode and that is where it stayed for a while (in spite of reboots!). I will not rule out that the EPS MIDI implementation is not ready for the EZE program (or visa versa) but that is not the user's problem.

Furthermore, I find it necessary to defend my own involvement with music (a cheap shot, sir). I spend, on an average, four to five hours every day at an acoustic piano, and four to five hours every day at computerized equipment making music. I am there as a composer and I have made my living at that since 1976 (I've been a musician for a considerably longer time).

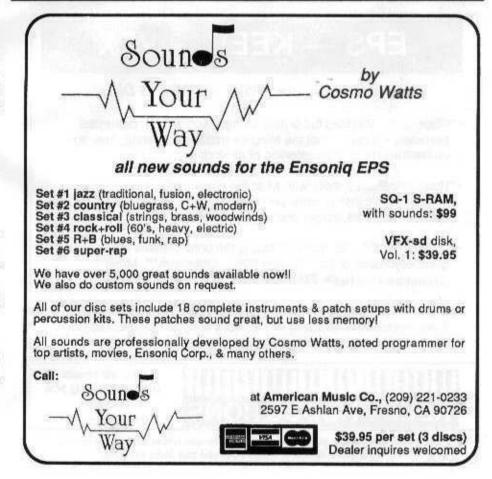
I am accused of being "bitchy and elitist!"
"Picky" would be a better word, and I have
good reason to be picky. I own this \$400
bookend, you see. It was purchased as a
sequencing program for the ST last year
and was so full of bugs that it was unusable. It has sat at the end of my software

library since then - unused. So now I'm picky.

As far as being an elitist, I assume that you are referring to my academic position in a university? I am not a lecturer because I have an MA, BA or PHD (I have a high school diploma and did not go to college). I am on the faculty because my experience as a professional musician has superseded the need for a degree. Experience like having conducted seven orchestras, having my music repeatedly performed at the Kennedy Center, Lincoln Center, on PBS and in thousands of theatres world-wide. This experience was not gained by elitism but by hard work and your comments to the contrary simply display your own arrogance.

I find your definition of a visual editor to be somewhat self-serving. To me, it is a computer program which visually represents the internal parameters available with the ability to edit those parameters. By your own definition, "to help utilize the full facilities of the machine" EZE falls short in that it does not address the sequencer of the EPS. I do not see this as a fault with your program, but rather, I use it to point out the flaw in your definition.

You are entitled to your opinion that my review was a "bad" piece of writing, as I am entitled to my opinion that the EZE program needs some work, But there is an area of



common ground which we must share, and that is an obligation to the user of the program. Had I said "I hated the program but you should try it," their sales might have increased and I might now be trying to explain the use of expensive bookends. Let me assure you that I have nothing to gain from writing an unfavorable review. I would have preferred to have written that the program was great, but I must report on my experience accurately.

Subsequently, I do have one statement to retract. I did say that the program and key would never enter my ST again. I was wrong. As a courtesy to you and to GELVA, I have re-tested EZE. Here are my findings:

- The program will not boot with any desk accessories loaded (forget about using your hard drive, kids, especially if you have it set up as drive C).
- 2. I could not get past the boot up process and experienced either a MIDI time out error (sysex not received) or the "Fatal Error... Bummer!" message no less than 10 times before I gave up. And before you ask: Yes! I did have MIDI sysex "on" on the EPS SYSTEM/MIDI page.
- I verified that the EPS and ST were communicating properly and was able to access the EPS from the ST via a sequencing program. I did this every time EZE crashed

and every time all other system components were operational.

4. I no longer think the EZE program is worthless. The program disk could be reformatted and used again and the package makes an attractive bookend. When I first reviewed the program, I could have kept it. I sent it back with the review. At my request, the Hacker returned the program and I could have kept it this time, but didn't. It went back with this letter. (I already have a software bookend.)]

#### Howdy Hackers:

I finally got to play a VFX that was free of the early bugs and I was blown away by the sound quality and programming versatility. Yea. But before I take out my checkbook, I must remind the folks in Malvern that I still have my SQ-80 and it's still working as my main controller and sequencer.

Not only that, I've finally paid off the balance on my IBM clone, and it's going to be seeing double duty as my word processor and primary sequencer shortly In other words, Ensoniq will have to make a rack VFX, minus the sequencer, before I jump ship and get one myself.

So feel free to add my name to the long list of Ensoniq customers waiting for that rack

module; it seems to be gaining momentum in every issue...

Best Wishes, Charles R. Fischer Mescal Music

[CS - For the record, I'd buy a VFX rack too.]

#### Dear Hacker,

Three cheers for Steve Vincent in his fine effort of compiling great music from our fellow Hackers, it's enriching to listen to. Steve's response was FAST: under two weeks from the moment I sent my letter to him. And I'm in Canada!

Since I love New Age music, this tape really pleases me. Although every cut is excellent, I can't help but have favorites. I really enjoy Archeopterix, Realities, Loving Was Never Like This, Islands, Morgantown and Autumn Winds. I'd like to thank the artists for their contribution.

Mark Lyth Compuserve 76046,1467 Quebec, Canada

[CS - For those of you who may not be aware, Steve Vincent has put together a collection of music created by Ensoniq users just like you and me. The tape can be had for a measly four bucks - just send along your check or money order to Steve Vincent, 3615 66th Av. West, Tacoma, WA. 98466.]

#### Transoniq Hacker:

I want to say your magazine has been a tremendous help in guiding me through the ins, outs, and thrus of my MIDI system – in particular my ESQ-1, and occasionally, when the article talked about it, my HR-16.

Having a magazine like the Hacker has encouraged me over the last two years to be content with my ESQ-1, learning all I can about its capabilities, and to utilize its potential through programming and thirparty sounds. I've been overjoyed with the little beast, and I can honestly say, I have had not ONE single technical problem with the machine!! Total percentage of dow, time has been one fat goose egg "0%!" This number goes for the whole system as well.

That board, along with my other equipment, have spent a lifetime of residency in the finished basement of my 9-year-old house, where the constant year round temperature of 70 degrees has been maintained. I do this because it is a computer, and computers must reside in an adequate climate.

I am going to be retiring from my music adventures due to a severe hearing loss that

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Money-back satisfaction guarantee on all disks. Return within 10 days for refund, Free descriptive literature. Demo tapes and trial disks available. began 2 years ago. (I'm 29 years old, not 65, and my hearing loss is due to Menier's disease, not loud music. I have never played in bands.) I am wearing two hearing aids and experience extreme difficulty understanding speech. I am selling the following for \$3,500.00: ESQ-1 (w/ version 3.5), Alesis HR-16 Drum Machine, Kawai Q-80 sequencer w/3.5" disk drive, Kawai Kim synth module, ART Multiverb II signal processor (w/ "performance MIDI"), Korg KMX-122 12 ch mixer, and 2 tier keyboard stand. All devices come with dust covers, software manuals, cables, original cartons, and 2 years of Electronic Musician and Transoniq Hacker Magazines.

Everything you need, to be on the air, is in this system!

All sound libraries are on the Q-80 disk format: 600 sounds for ESQ-1, and 700 sounds for the Kim. This system is two years old and has never left my basement. If you are interested, call me at (316) 684-6761 during the hours of 6 pm-9 pm CST, and we'll rap more. (Don't panic, I have amplification equipment so I can hear on the phone.)

There is one thing I'd like to know: Why are people dissatisfied with their equipment the minute they read an article about a new piece of gear? I've read more letters from readers of different rags that are saying stuff like, "My life won't be the same without 'such-and-such' piece of gear, etc." Come on, wise up out there! Are those of you who constantly mutter such nonsense making a healthy career out of music, or discontent?

Spend your time making music, not getting ulcers over whether you need to replace your whole setup every year with the "hottest" stuff. If that's all you worry about, then you should be running a retail music store, not making music. The beauty of the analog synthesizers (that so many out there are so anxious to put in file 13) can be realized in Suzanne Ciani's "Seven Waves" CD, as there are no digital devices used for recording this album. You'll be amazed at what you hear!

I dreamed 5 years ago of having my own MIDI studio in my home for personal enjoyment. That dream became a reality 2 years ago, only to be cut short by a sudden hearing loss that has left me severely hearing impaired. While you have your hearing, enjoy what you're doing on your keyboards, and have fun with it!! Don't worry, the Hacker will still be here to answer your questions, as they always have been.

Thanks for the support, Hacker. Ron Nolan Wichita,, Kansas

[CS - And thanks for your support, Ron. Keep the faith.]

[Ensonig - We were very sorry to hear about your situation and admire your strength and comments very much. Perhaps you might want to hold off on selling your equipment until you've explored our latest development specifically for the hearing impaired. Ensoniq now makes a programmable listening instrument, the Sound Selector, which could help your speech recognition as well as your enjoyment of music. Although it looks like an ordinary hearing aid, it can be programmed across 13 bands of graphic equalization to compensate for your specific hearing loss, and can be updated as needed. Hearingaid wearers like yourself have told us what a vast improvement wearing the Sound Selector has been for them. Why don't you contact us to get some more information.]

#### Dear TH,

Is it possible to do stereo panning of a waveform or layer on my EPS via the LFO. I'm trying to simulate the classic Rhodes sound. If not...any suggestions for the next best thing to it.

Sincerely, James Piekarski Denton, TX

[CS - James, there's no actual dynamic stereo panning function such as you describe available in the EPS, but there is a pretty simple work-around. Use two layers with identical settings, one panned hard left and the other hard right, and use an LFO to control the amplitude of each layer. The trick is to make sure that the LFO is set up identically for each layer, but that while one layer is being modulated positively, the other is being modulated negatively. Here's how:

Start with your electric piano sound in a single layer. Copy this layer (params only). On the first layer, head over to the [Amp] page. From here, pan the layer hard left, and scroll on to the A-B FADE IN page. Set the values to 127 and 0, respectively. Scroll again and set C-D FADEOUT=0 127.

Now select the second layer and head to the [Amp] page again. Pan the layer hard right, and set set A-B FADE IN=0 127, and C-D FADEOUT=127 127. Now let's adjust the LFO.

Select the entire instrument (press [Edit] and underline the instrument name). Select [Pitch], scroll to 'LFO AMOUNT=', and set the value to 0 (we don't want the LFO to affect pitch in this patch). Now head over to the LFO page.

Select a sine wave (WAVE=SINE) and set 'SPEED=24' (you may want to experiment with different speeds later). Set LFO

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DEPTH to 99, and DELAY to 0. Also, set 'LFO MODE=RESET ON', and you should have a fairly reasonable approximation of the "classic Rhodes" tremolo effect.]

Dear Interface,

I was just wondering, who is the Masked Hacker of Issue 59? Also a question for Ensoniq – how do your sampler sales compare to synthesizer sales?

Your subscriber, Kirk Slinkard Lakewood, CO

[TH - The Masked Hacker is a slightly paranoid contributor who wishes to remain anonymous.]

[Ensoniq – Well, we're not about to release actual sales figures but it's no secret that the synthesizer market is much larger than the sampler market. We probably sell about 25% more synths than samplers, which is not the industry average. Ensoniq has been very lucky to experience very good sales of both the Mirage and the EPS samplers, numbers that we're sure many of our competitors would love to achieve. For that we have you customers to thank.]

Dear Hacker,

I have a question about my VFXsd. The

factory demo sequence had some sounds that are not listed in the internal banks 0-9. Inside the tracks were sound names I couldn't find in internal memory or presets. What's happening here?

Examples: Metal Tines, Percussion, Star Dive, Reel Steel, Dangerous.

These were contained in the factory sequences named "Le Begin" and "GTR West

I have software version 1.37, I am interested in learning more about managing effects during sequencing songs.

Respectfully, John Adams Elmhurst, IL

[CS - The sounds you mention (along with about 55 other sounds you may not be aware of) are located in the ROM memory of the VFXsd. To access them, simply double-click the CART button, then use the bank buttons (0-9) and soft buttons to access them in the standard way.]

[Ensoniq - You bring up an important point. There are many additional sounds that you already have for your VFX-SD. Besides the ROM sounds that Clark mentions, the Operating System disk contains many additional files. Check out the single Program files for the "Wow Sound" and some new drum kits, the 30 Program and 60 Program files for additional sounds that were used for the VFX ROM and RAM, the VPC-101 and a 60 Program file of additional keyboard sounds. There is also a 30 Seq/Song file that contains the Bonus Beats drum patterns which can be used for new song writing and playing. In total you have over 300 sounds in the box when you purchased your VFX-SD. This is all documented on a separate sheet of paper that came with your instrument, and the ROM sounds are called out with a label on the unit and in the manual. Enjoy these new-found sounds!

#### Hiya Hackers!

I want to thank Barry Carson for his nice article on sampling bowed strings (Issue #59, May, '90). I too have sampled bowed strings and have noticed some problems and ideas that you folks might want to think about

Due to unavailability of instruments (originally, though not now), I decided to sample from the McGill University Master Samples (MUMS) compact disks. I therefore didn't have the amount of control over my sampling material that Mr. Carson suggested. The worst problem I encountered was exactly the first he mentioned - all of the MUMS bowed string sounds had vibrato. This makes finding a loop very difficult. I also had the difficulty that I was making these samples for use in eightinstrument ensembles synthesized on one EPS with only a 2X memory expander and no external sequencer. In other words, I had no memory to spare.

With vibrato present in the sample material, you have only two options for loop points: you can either loop on a single cycle of the soundwave, or as single cycle of the vibrato. (If you're lucky, you might be able to get away with looping on TWO or THREE cycles of either, but you've got to work on cycle-boundaries.) I originally produced several instruments looping on vibrato cycles rather than soundwave cycles. After completing a violin, a viola, and a cello this way, and using them for a while, I decided that they were not acceptable for the following reasons.

- 1. They are up a lot more memory than looping on single cycles of the soundwave.
- I had no control over the vibrato (eg., via aftertouch). It would always play with the same amount of vibrato at the same times.
- Vibrate speed would vary across the key range of a wavesample.
- 4. If you listen carefully to the high notes on a violin, you will hear an underlying "scraping" sound below the tone itself. This sound is probably caused by unevenness in the bow-hair and rosin. With vibrato-sized

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loops, this sound would change pitch across the key-range of a wavesample. This sounds totally unrealistic and immediately broadcasts to the world that you're really hearing a sample instead of the real thing.

I decided therefore to start over using the other approach—looping on soundwave boundaries. How did I deal with the above problems in that context? Let's take them case by case (the numbers correspond to those above):

- The loop-size went way down, so this problem was instantly solved (the violin sound, for instance went from 429 blocks to 215 blocks.).
- 2. From having played the viola as a kid, I knew that stringed instrument vibrato is produced basically by allowing your fingertip to "roll" along the axis of the string under control of a waving motion in your wrist. Stringed instrument vibrato technique, therefore, alternately shortens and lengthens the vibrating length of the string. The vibrato therefore mostly changes pitch, which is easy to synthesize using an LFO as a frequency modulator. This LFO can then be controlled by anything you want; I chose polyphonic aftertouch.
- Since the vibrato is synthesized, the vibrato speed can be controlled.

The scraping sound (problem #4) was a much nastier problem. When you loop on a single vibration, the scraping sound is clearly audible during the attack transient, but disappears suddenly when you hit the loop. This is not acceptable. I had to do two things to solve this problem: first, get rid of it from the attack-transient, then resupply it as a separate layer with a pitch table setting of "NO PITCH" so that it won't change pitch no matter which key of which wave-sample I play. Removing it from the attack-transient turned out easy-a 2-pole high-pass filter knocked it off just fine without affecting the actual tone much at all. The result appears in the disk of sounds for my Octet in G-Minor mentioned in my earlier articles on USING THE EPS AS A COMPOSER'S WORKSTATION.

Resupplying that sound back took a little more innovation. How do I regenerate the scraping sounds without playing a note? The logical guess, since a high-pass filter successfully removed the scraping sound, would be to use a low-pass filter to filter out everything but that sound. That didn't work I could never remove enough of the pitched sound without destroying the dryness of the scraping sound. I pondered this question for several days, considering such things as trying to synthesize it on an analog- or FM-synthesizer and sampling that. I then suddenly came by an awesome innovation: bow the bridge!! I placed my viola (by then I had one again) on my lap in front of me, damped the strings at the

nut-end with some foam, then sampled the sound of bowing the bridge as though it were a string! That reproduces that scraping sound almost perfectly. Cool, eh? Fortunately I've got a 4X expander now, so I have room to hold the scrape.

Keep up the hackin' everybody! Gary Morrison Austin, Texas

[CS - Thanks for the input, Gary.]

Dear TH:

Greetings from the great white north, eh?

First of all, I would like you to pass on a big thank you to all those professional individuals at Ensoniq who care enough about their products and customers in that they make the effort to resolve all (or most) of the little bugs that sometimes plague the "operations" of their equipment. Keep it up! And, when Ensoniq becomes the big, powerful, and highly acclaimed company that it's bound to become, please do not forget how it got there!

Secondly, (but of no less importance on the grand scale of things...) I would like to thank TH for an excellent publication. There always seems to be something in every issue that I incorporate, and wonder

how (or why) I got by without it. And, no inflated egos to be overwhelmed by...Great work guys...Please continue!

Now...I have two questions for Ensoniq:

1. I play with two keyboardists in an original electronic music project band, and presently, we depend on my ESQ-1 to keep us in sync. I do a lot of sequencing, and there is a problem that has just begun to reoccur REGULARLY which sends the ESQ-1 into never-never land. It appears to stem from the data entry slider, but I'm led to believe that it's software related, as I've had the slider replaced and the problem still exists. It affects whatever page or value I've selected or underlined. The value of the parameter that I underline will suddenly go into a random frenzy. It remains within its assignable limits but continues to change until I push the slider all the way to either extreme, then use the date increment/ decrement buttons to obtain the desired value! And, of course, trying to select a tempo for sequencing is a real pain. Try setting a tempo of 117 starting from 25 using the data entry buttons sometime, again and again.

Please, please, respond to this problem as there are two other musicians I know that are having the same problem with their ESQ's. They have version 3.5, and I have version 3.4 in mine, and I don't have any



intention of updating until it is determined where the problem stems from, as 3.4 has been otherwise good to me...(My ESQ is an older, metal cased warhorse).

2. Between the three of us, the band shares four Ensoniq products. I own an EPS as well as a temporarily troubled ESQ, while another ESQ and a VFX is distributed between the other two guys, I'm questioning why our two identical, older model (metal case) ESQ's sound different when we compare IDENTICAL patches? is there any way to manually adjust the filters? My ESQ is "brighter and breathier" sounding than the other, which sounds dull and aimost as if some frequencies aren't being reproduced. Again, ALL the values of EACH parameter are IDENTICAL. We've tried everything in order to have the other ESQ playback like mine, including reinitializing, tuning the filters... everything??? This is not as important as question 1, but a response would certainly be beneficial.

Anxiously awaiting a reply and thank you very much.

Yours truly, Alan Levesque Edmonton, Canada

[CS - 1: Your data slider snafu really does sounds like a hardware problem. I'd contact Ensoniq customer service directly. As always, the number to call is 215-647-3930. Also, I'd recommend upgrading to OS 3.5.

 The ESQ-1 uses analog filters supplied on chips manufactured by Curtis or SSM.
 The nature of analog electronics is such that the types of sonic differences you describe are probably due to differences in the sound of the chips in the two ESQ's.]

Dear TH,

Is there anywhere available a complete MIDI spec for the EPS? In particular, I would like to know the sysex code(s) that would allow me to access the pitch table from my computer.

Thanks, Bill Madison, WI

[CS - Funny you should ask. Ensoniq has just established a protocol for handling user requests for MIDI specifications of their various products. You may obtain the info you seek by writing (please do not call): Ensoniq Corp., MIDI Specification Desk, 155 Great Valley Parkway, Malvern, PA 19355. Ask for the specs for the product you are interested in and allow 2-3 weeks for delivery.]

Hacker:

I'm new to electronic music (EPS, class of

'88), and only very recently have I thought I knew enough to ask questions. On top of being a novice, my main ax is—are you ready for this?—English Education. So be gentle!

1. The EPS is a thoroughly amazing instrument. So much for the myth of Japanese superiority! Every time I figure I need some new piece of gear, I find some way to do nearly the same thing on this machine. But I have this problem: the only way to use, say, three different voices on my TX81Z each on a different MIDI channel-is to use up three separate (MIDI) instruments. This takes up a lot of room, I could, of course, assign those timbres to different zones on the same channel, but suppose I don't want to do that. Why can't the EPS OS (I have 2.40) allow me to assign different layers of the same instrument to transmit on different channels? Then I could use patch-selects to switch between those sounds and use only one instrument

2. I did figure this out all by myself: one way to get more than eight voices on the EPS is simply to double an instrument: create one or two new layers on an instrument that doesn't use many and copy layers from a totally different instrument into those two new layers on the first instrument; then set the patch selects so that you get the new instrument when you need it, without having to load it and replace one of the others. (I know: you guys have already thought of that, but I felt really clever.)

3. When I ruminate about getting a hard disk, why does my dealer mutter darkly about horror stories he has heard? Is there something I, or he, should know? (I have the Maartists 4X RAM xpndr.) He says he's heard "nothing but problems." Maybe we could have a compare/contrast article?

4. What I NEED (the piano has always been my main instrument) is an 88-key weighted-action controller keyboard! Is Ensoniq giving any thought to a board like this—say, for the VFX? I'm impressed with Ensoniq's devotion to innovation and customer service and would like to stick with them. But if something (like the mysterious K4000) comes along with a full piano-style keyboard in the VFX price range, I'll be tempted.

5. If a sound can be saved to two disks, why can't the entire contents (song/sequences + all sounds) be saved to multiple disks? Boy, would this save time!

6. In a sequenced orchestration, a solo violin sound (KEEL Production's Solo Violin) with which I am playing a duet, works fine when played live against the other tracks, but when played back for some reason seems clipped at the front end, so there's a popping sort of attack. Any ideas what the problem is? Voice-stealing? But why only on playback?

7. Has anybody reviewed Minotaur Studio's medieval instrument samples? They don't offer a demo, and 20\$ is a lot to ask for a 60%-full disk.

8. OK, here goes, and don't laugh: I...I have an Apple IIGS. There, I've said it. Forgive me: I was young. (under 40) Is there any hope? I know of only one worthwhile program for it (Mastertracks Pro), no EPS sample editing software, no ed/lib programs for the TX81Z or the HR-16, or anything else except flashy newsletters. Do I have to get a Mac (and pffftl there goes all the money for a couple presidential administrations)?

Thanks for listening! I enjoy your publication!

Dan Walker Partlow, VA

[CS - Most of the hard disk troubles that I've heard of seem to be related to the way in which different manufacturers implement SCSI hardware. To avoid problems, try to stick with Ensoniq tested and approved products. You'll find a list of these elsewhere in these pages. Be aware, however, that Ensoniq supports no hardware other than their own, so it might be a good idea to check with Maartists to see what hardware they recommend before making any major purchases.

Your question #6 sounds like a voicestealing problem to me. When you are playing the EPS keyboard, priority is given to the voices you are actually playing, so this problem would not crop up except during playback of sequences. You might check to make sure that you aren't using instruments that have lots of layers active — each additional layer in an instrument uses up a note of polyphony.

Re comment #7: Minotaur disks number 2 and 3 were reviewed in the Nov. 87 issue of TH; disks 4 and 5 were reviewed in Jan 89; and disk 8 was reviewed in Sept. 89.

Re comment #8: Unfortunately, the Apple IIGS is not well supported with music software. If the Macintosh seems too expensive an alternative, you might look into Atari, IBM and Commodore computers. You should be able to find the programs you want for either the Atari ST series or IBM machines, and possibly for the Commodore Amiga as well.]

[Ensoniq - 1] The O.S. is simply not designed to do that. It is very complicated to try to handle multiple MIDI channels on a single Track/Instrument. You'd want to be able to do different things to those sounds and a single Track/Instrument would not be able to handle that.

3) You should not be afraid of using a hard drive. If you choose a tested and approved drive you'll have no problems and experience a much improved system of file management. Since you have a Maartists expander you'll have to use their SCSI card as we do not support mixing our SCSI cards with other companies memory expanders. I suggest you contact Maartists regarding compatibility.

- 4) We have no plans for an 88-note VFX. It would be prohibitively expensive.
- The EPS can't do this, but using a hard drive would alleviate this type of problem.]

[TH – We do have an article reviewing the Eltekon 44Meg removable hard disk elsewhere in this issue. Most hard disks don't lend themselves to having a whole lot to review—the "Approved Hard Drives" list really sums it up.]

#### Dear TH:

I'd like to offer a few statements about my Formant Shifting article (Jan. '90), I disagree with Nick Longo's assessment of my article in his letter (March '90). I still believe that formants are indeed being shifted. The VOICE1 waveform on the ESQ and SQ-80 is composed of multiple samples spaced across the keyboard. Each multisample in the VOICE1 waveform has a characteristic formant frequency which gives it a vocal timbre. Let's just look at one of these samples. If you change the playback frequency of this sample (i.e. modulate it with an e.velope), the sample's formant frequency will also change correspondingly. Isn't this a rather simple concept? Therefore, when this formant frequency, which creates the timbre and character of the sound, is changed, the timbre and character of the sound is changed.

Nick doesn't agree with this. He states .the timbre changes not because he is shifting the location of a formant frequency, but because he is shifting the split points ..., then compensating by changing the samples rate using a modulator." Changing the sample rate of each multisample is precisely what shifts the location of the formant frequency, inherently changing the timbre. In my patch CHOIRX, the playback rate of each multisample is slowed down (lowered -19 by ENV 1), thus lowering each multisample's formant frequency. Then this pitch and formant frequency change is compensated" by shifting the split points with the SEMI and FINE controls. This compensation simply aligns the keyboard to what pitches are sounded (i.e. playing Middle C creates a Middle C pitch). This give the whole choir sound a lower, deeper timbre.

I now realize I should have gone into more depth in discussing the multisamples. I apologize for being vague in that department. You see, I wrote the article from a more general perspective, with sound, not science in mind. From a sonic point of view, the most significant difference between the original patch, MIXED, and my CHOIRX is that CHOIRX has a deeper timbre. This deeper timbre is predominantly caused by low formant frequencies (i.e. it is NOT caused by other factors such as a lower filter cutoff frequency).

In reference to Sam Mims letter in April '90, I appreciate Sam's suggestion to use a squarewave LFO instead of an envelope to remove any tuning problems. I apologize for apparently taking his ideas, but I wrote my article before his July '89 article was published and did not get any ideas from his article. As my article states, I got the idea for CHOIRX by bending the pitch wheel and actually hearing the formant frequencies shift. By the way, I recently purchased a VFXsd and I love your VFX Trombone patch, Sam. You are also shifting the characteristic formant frequencies of a trumpet into the range of the trombone.

Also, in reference to the paragraph in Sam's letter which begins "Basically, we are not dealing with transwaves, as Jim suggests." I did not at all suggest that the ESQ-1 or SQ-80 uses transwaves. All I stated was that some of the ESQ-1 or SQ-80 sounds have characteristic formant frequencies. My reference to the VFX was a sonic one. Changing the formant frequencies of ESQ-1 multisamples has a similar sonic effect as sweeping through some of the VFX's transwaves.

The thing that bothers me is that the whole point of my article has been overlooked. The most prominent feature of the article is my patch, CHOIRX, which is a good, unique, and very usable choir sound. I haven't seen any comments on this patch, good or bad. Music and sound are always more important to me than the science behind them. Well, I hope this clarifies things and I'll be more complete if I write any future articles. That was the first article I have ever written in my life. Do you realize how hard it is to type "formant frequency" 800 times. Due to sore fingers, I shall quit typing now. Thanks for your time and space.

Jim Grote Cincinnati, OH

Dear fellow SQ-80 owners.

Here are a few tricks, tips, and questions based on quirks of our beloved instruments:

Be careful before erasing or recording over tracks without a dot (.)—they can still have recorded material in them if they were assigned a program, and then another sequence with recorded material on that track was appended to it. Also, when such a track with recorded material and no dot is subsequently erased, the recorded material will continue to be played by "ghost tracks" of bizarre sounds. For example, try this:

First save anything you don't want to lose, then ERASE ALL. Now Load a single sequence that has more than one track of recorded material. Go to sequence 01 (which should be empty) and assign any program to track 1. Hold REC and press PLAY; play a single short note, then press STOP. Keep this first track. Now assign programs to all the other tracks (you can assign the same programs as the tracks have in SEQ.60 if you want). Now APPEND SEQ.60 to SEQ.01. Press PLAY. SEQ.01 should now play your first short note followed by your SEQ.60—BUT NO DOTS are on the other tracks!

Now ERASE all of the other tracks (2-8), and press PLAY. You should hear the first short note followed by a ghostly version of SEQ.60. Now press STOP, Again assign programs to tracks 2-8. Press PLAY, All of the recorded parts are STILL there!

To avoid this "ghost track" situation just don't assign programs to the unused tracks of the first sequence. For example: CREATE SEQ.02. Record a single note of any program on track 1. Now APPEND SEQ.60. All of the other tracks now appear with their proper names and dots, EXCEPT any of the tracks of SEQ.60 which were recorded with track status -SEQ-. These do not show up at all-the track remains UN-USED. Even changing the track's status (in SEQ.60) to LOCAL, MIDI, or BOTH before appending does not help. But, now get this twist: if the track IS assigned a program (in SEQ.01) prior to appending SEQ.60, then the track does appear but without a dot.

I'd like to know if these quirks are occurring only with my axe or if they are inherent to the operating system. My SQ-80 has software version 1.80-201. You can check your software versions by holding RECORD and pressing MASTER. Fellow hackers, please try these experiments and let me know your results. Thanks.

Sincerely, David Zipse Cardiff, NJ

[Ensoniq - We haven't heard of these problems but your workaround seems to make sense. Also, you could avoid this by briefly going into record without playing anything, then keeping the new track on any tracks in SEQ01 which you know have data in SEQ60. This puts a dot (though no note data) in the track so that it can be appended to properly.]

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Publisher: Eric Gelslinger Editor: Jane Talisman Staff: Andrea Whitcher

Our (somewhat regular) Illustrious bevy of writers includes: Craig Anderton, Chris Barth, Michael Carnes, Dave Caruso, Walter Daniel, Gary Dinsmore, Charles R. Fischer, Steven Fox, Bryce Inman, Jim Johnson, Duane King, Bill Lewis, Dick Lord, Kenn Lowy, Sam Mims, Michael Mortilla, Clark Salisbury, Jordan Scott, Mick Seeley, Don Steplan, and Bob Spencer.

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Advertising rates: Please send for rate card. Rates for authors: Typically 4 cents/word upon publication.

Subscriptions: 12 monthly issues. US: \$23/year, All others: \$30/year. Payable in US funds.

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