

# TRANSONIQ HACKER

The Independent News Magazine for Ensoniq Users

## Test-Driving The VFX-SD

by Sam S. Mims

With the VFX, Ensoniq has surely scored big. While the sounds of that keyboard are reminiscent of the ESQ-1 and the D-50 combined, sort of, they really go far beyond that into a realm all their own. People will soon be referring to the "VFX-type" of sound, just like we say the M1 or K1 has that "D-50-type" of sound.

Now, take this fabulous sounding keyboard, add on a 24-track sequencer, a disk drive to store sound data, sequence data, and sysex data, 41 more slammin' drum samples, and a couple of more outputs, and you get the VFX-SD. Let's take a look at the sequencer first.

The VFX-SD's sequencer is, first of all, as easy to use as the ESQ-1's. If you could get around on that—and who couldn't?—you'll have no trouble driving the VFX-SD. It's somewhat similar to the EPS's sequencer in that you have extra "song" tracks. Essentially, you've got 12 basic tracks (two pages of six each) with which you can create individual sequences. Then, these are combined, like on the ESQ and EPS, into songs. Now, you have 12 more song sequences that you can record in addition; these run the length of the whole song, instead of the length of any particular sequence. But you're not really very limited on these tracks, as you were on the EPS—you can pretty much do anything you want with them.

You've got room to store 60 sequences and/or songs (43 sequences and 17 songs, or whatever), and the memory capacity is over 25,000 notes. You can

increase this to 75,000 with a SQX-70 expander.

So is this a good sequencer or not? Well, I had been doing all my work with the ESQ-1 sequencer for years, but my equipment and my requirements for more powerful editing grew to the point where I began shopping for a software-based sequencer for my computer. When I got the VFX-SD, I quit shopping. Here is a sequencer that's infinitely more user-friendly than any computer-based package, yet it has all the features I was looking for in the editing department. With a clock resolution of 96 ppq, it plays back what you record with no timing "corrections"—retaining the exact feel of the performance. You can do automatic punch-ins and -outs. You can punch in, automatically, only notes higher than F#4, if you want. You can tweak the velocity of that third note that's a bit overpowering. You can assign track 6 to one auxiliary output (dry), and track 3 to the other, while the rest of the tracks are mixed to the stereo outs. This, folks, is a powerful sequencer.

The sequencer operating system is loaded from disk (included) into dedicated RAM memory in the keyboard. This is the best of both worlds, for once it's loaded in RAM, it stays there and you don't have to access the disk every time. But, when future upgrades to the O.S. are released, you can just pop in the new disk, load the new O.S. to RAM, and jam.

Now, the bad news is that the sequencer is not without its bugs. The good

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news is that even as these words leave my fingertips, a new O.S. is on its way, fixing bugs and adding more features. So, I'm not going to harp on what's probably fixed already. If problems persist, you'll read about 'em here (and with the ease of issuing new disks, as opposed to new chips, I'm sure they'll get fixed quickly).

There's not much to say about the disk drive. It works, it sure is handy. It stores single programs, or 6-, 30-, or 60-program files, 1-, 10-, or 20-preset files, 1-, 30-, or 60-sequence/song files, system set-up files (storing global parameter settings, such as tuning, MIDI channel, pitch-bend range, etc.), the sequencer operating system, and sysex data from any other device. A bug caused the drive not to write 60-program files to disk (even though it told you it did), but this has reportedly been fixed with the new upgrade.

The two auxiliary outputs allow sounds (or sequencer tracks) to be separated from the normal stereo outs for independent processing (the aux outs are dry only, bypassing the internal effects processor). This is great, because the sequencer has to use the same effects program for all the tracks—effects programmed as part of the individual sounds are overridden. (This is an immediate bummer, but the only alternative Ensoniq had would be to build 24 effects processors into the keyboard. Don't want to pay for that.) So you can send the snare drum, for instance, to an aux output, then run it through an outboard gated reverb, while the rest of the mix goes through the internal large hall reverb. It would have

been nice to have a bevy of these extra outputs, but two is two better than none....

With 41 more drum sounds, you can get pretty much any type of kit you need, and the factory kits cover a wide range from light jazz to slammin' power rock. The sounds are all good; the snare sounds are exceptional. I don't know that this synth will replace my entire drum machine, just because of the limited number of outputs, but if you don't need that, it does just dandy in the drum department.

The keyboard itself is a notch better than in the VFX; you get the polyphonic aftertouch, but without the clicking. Combined with the patch select buttons, the CV pedal input, the wheels, the timbre control, and the programmability of the sounds, this is an incredibly expressive keyboard (as is the VFX).

The VFX-SD is still an infant, and like most computer-based devices, some quirks and bugs have shown up during this infancy. These are, for the most part, minor annoyances, and I'm confident that Ensoniq will straighten them out promptly. They have, once again, offered an incredible synthesizer for a price (\$2595) that will give the competition a lot of trouble. I give it ten thumbs up—I do have ten thumbs while playing, on occasion. ■

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# Front Panel

RND (♪♪♪)

## News from Ensoniq:

Ensoniq announces a major new sound development program, the *International Sound Collection*, now available for the VFX and VFX-SD synthesizers. Each cartridge release includes 60 Sound Programs developed by major synth programmers from a given country, with a detailed manual including information about the culture and music scene of each country. The first volume, entitled the *German Collection (IPC-1)* is now available at your local Authorized Ensoniq dealer. Future cartridge releases will include sounds developed in Japan and other major international music markets. Check out the hot new demos that have just been released to the dealer base to hear just what a VFX-SD can do!

### Ensoniq Corp Presents its Spring Seminars: *Making Music In The 1990s*

Ensoniq Corp announces its spring seminars entitled: *Making Music In The 1990s*. Starting in early April, the new seminars are perfect for those who play any instrument. No matter what instrument you play the new seminars will show you how to get the most music out of Ensoniq's award-winning synthesizers and samplers. Each seminar event features live performances, product demonstrations and tricks of the trade developed by star clinicians such as Bob Wehrman, Doug Nestler, Bob Stillman, Mike Lundin, Bruce Wismer and Rick Parent. For more information on a seminar near you, call 1- (800) 942-0094 or write Ensoniq Corp, 155 Great Valley Parkway, Malvern, PA 19355.

### Company Goings On

Bert Neikirk has been appointed Customer Service Representative for the Ensoniq Customer Service Division. With an extensive background in music performance and recording, Bert previously worked in Ensoniq manufacturing audio testing main boards. Bert has a B.S. degree in Music Education from Millersville University, plays several other instruments including guitar and cello, and has performed with various choirs and bands.

James Boggia has been promoted to Technical Writer at Ensoniq. His new duties and responsibilities include manual writing, editing and illustrating for all new products. With an extensive background in copy writing as well as music production, performance, and, as a MIDI technician, James had previously served as a product specialist in Ensoniq Customer Service.

### Ensoniq Keyboard Sampler Plays A Part In *The 1812 Overture*

A modern electronic keyboard might be the last thing you'd expect to find in a performance of a musical masterpiece from the 1800s. However, at Eastern Kentucky University, an Ensoniq EPS keyboard brought dynamic new sound to the famous *1812 Overture* by Tchaikovsky.

High technology and classic music joined forces as an Ensoniq's EPS Performance sampler was used to capture the sound of the University's highly regarded Carillon. By sampling the Carillon, the Music Department was able to bring this immovable object into the auditorium and make it a part of the performance - something possible only through the use of the EPS

sampling keyboard. The sampled Carillon was then added to the score to perform the chime parts in the finale of the classic piece. Quotes John A. Roberts, Chairman of the Department of Music: "It was very effective, filling our 1600 seat auditorium with sound."

## Hacker News:

The *"Hacker Compilation Tape"* that's been mentioned in *The Interface* over the last few months has been completed. This is a 90-minute tape that was put together by one of our subscribers, Steve Vincent, through contacts made in *The Interface*. 12 different Hackers, all Ensoniq gear, \$4.00. Contact: Steve Vincent, 3615 66th Ave W, Tacoma, WA 98466.

The Hacker is on a 4-week, 4-week, 5-week schedule. You should receive the next issue (#58) in approximately 4 weeks.

## 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** - Erich Swanston, Maestro Sounds. 718-465-4058. Call anytime. (NY) If message, 24-hr callback.

**VFX QUESTIONS** - Sam Mims, Syntaur Productions. 818-769-4395. (CA)

**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, (602) 821-9266. 8 a.m. to 5 p.m. Mountain Time (AZ).

**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.

**MIRAGE OPERATING SYSTEM** - Mark Cecys, West-Coast Time. Days. (408) 253-8547.

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# Maestro Sounds for the EPS

Reviewed by Erick Hailstone

For: EPS.  
Product: Sounds from the M-1 for the EPS.  
Price: \$12 per disk.  
From: Maestro Sounds, 113-30 199th St., Jamaica, NY 11412.  
(718) 465-4058.

This month five disks from Maestro Sounds arrived for review. I eagerly whisked them into my home studio, sometimes referred to as "MIDI Hell," and gave them the once over. And now the results.

The disks are divided into two categories; M-1 ESSENTIAL and M-1 EXOTIC. The Korg M-1 seems to be the original sound source for all of these disks. Providing samples of this sort for an instrument like the EPS can save a lot of space and a lot of money, not to mention removing you from the synthesizer of the month loop. And now on with the show!

## M-1 EXOTIC #1

**HALLOWEEN [520 Blocks]** This a large vocal ensemble with stereo chorus. The Mod wheel controls vibrato. There is a light airy sweep in the background that I find unusual but not unpleasant.

Patch Select 1; The voices are now in fifths. PS 2; When you first play a note the sound appears in the right speaker and then travels over to the left side. The time it takes to travel from right to left is controlled by keyboard velocity. Once the sound has traveled from right to left the pitch seems to dip slightly flat and then come back up again. PS 3; When a note is played the volume swells from low to high. There are two distinct pitches starting in unison. As the volume swells, one pitch rises while the other falls. This an unusual combination perfect for any cartoon in which Tony Perkins might be making an appearance.

**BABYLON [520 BLOCKS]** I like this one, a string sound with metallic harmonics in the background. They sound like two or three notes from a bell tree cycling in and out as you sustain a note. It's less effective on the upper end with some background noise detracting from the main sound.

PS 1; Layered fifths with the Mod wheel lowering the fifth to concert pitch. PS 2; Layered fourths with a filter sweep. PS 3; Layered fourths.

**BIG CITY [582 BLOCKS]** The initial attack is stringlike. Kind of like a huge guitar. Immediately behind the attack is an organish sound reminiscent of a Hammond which sustains as long as you hold down the keys. This sound has a lot of pitch modulation or chorusing.

PS 1; Layered fifths. PS 2; The string attack is a fourth below. PS 3; Uses a random filter to create a jittery unpredictable tremolo effect. Key pressure closes the filter making the sound less bright.

## M-1 EXOTIC #2

**ATLANTIS [373 BLOCKS]** This a combination of a string and a vocal ensemble. In the background there are two or three repeating wood type percussion voices. In the highest octave of the keyboard this sound is a bit harsh.

PS 1; Layered fifths. PS 2. Layered fourths. The LFO modulates the filter after about a one second. The Mod wheel opens the filter, making the sound brighter, which makes the modulation effect more pronounced. PS 3; Doppler effect with the sound traveling from left to right.

**PLANETS** An ensemble violin sound with a wooden percussive attack followed by repeating upper wooden percussive harmonics.

PS 1; Layered fifths. PS 2. The percussive attack is a fourth below. It seems slightly flat to me. PS 3. The filter opens slowly swelling to completely open.

## M-1 EXOTIC #3

**UNIVERSE [521 BLOCKS]** Another chorused vocal ensemble. This one has an interesting percussive swirl in the background. It sounds like two high pitched notes created by striking two dense thin pieces of wood. Their pitch raises and lowers and the speed in which they are struck gets faster and slower. I like this background effect a bunch. The Mod wheel controls vibrato.

PS 1; Layered fifths. PS 2; Layered fourths. There is a downward filter sweep with LFO modulation that occurs during the last third of the filter sweep. PS 3; Simultaneous pitch glide of two notes, one a whole step above, one a whole step below, both arriving at concert pitch.

**PYRAMIDS [405 BLOCKS]** This is one of my favorites of the Maestro sounds. An analog type string pad with bell tree harmonics swirling in the background. The Mod wheel controls vibrato. PS 1, Layered fifths. PS 2; Layered fifths with the volume swelling from low to high with a filter sweep from barely open to completely open, to slightly closed. PS 3; Layered fourths. There is a random tremolo and the volume swells from low to high.

**ELM ST. [561 BLOCKS]** Somewhat similar to Universe. An analog pad with a sharp white noise attack followed by the swirling bell tree harmonics. Lots of chorusing on the analog voice and the noise sweeps in and out. PS 1; Layered fifths. PS 2; Doppler effect from left to right. The voice in the right speaker is a fourth above. The Mod wheel lowers the fourth to concert pitch. Key pressure raises the pitch a whole step. This occurs only with the sound emanating from the left speaker. PS 3. Simultaneous pitch glide from an octave below and above meeting in the middle.

## M-1 ESSENTIAL #1

**XMAS** A percussive string attack with a chorused vocal ensemble sound. PS 1. Layered fifths. PS 2; Doppler effect. PS 3. Layered fourths. Filter sweep from closed to open.

**MAGIC ORGAN** A chorused organ sound with a bell-like attack. The bell tree swirling harmonics are in the background. This sound stands out above all the others.

PS 1; Layered fifths. PS 2. Layered fourths with Random filter modulation creating a tremolo. Key pressure closes the filter. PS 3. Pitch glides from a fourth below to concert pitch. The Mod wheel raises one of the layers up a fourth.

**DIGITAL 4** Great digital piano with analog pad underneath it. There is a subtle chorusing effect. The sustain is a bit long for my taste but easily changed to suit the individual. What I like about this sound is that the upper harmonic structure gives it great definition while the body of the sound remains very warm.

PS 1; Layered fifths. PS 2. The chorus effect is much more intense. PS 3; Seems to be the same as the original sound except that the mod wheel engages vibrato.

**OOHAHH** A large vocal ensemble whose vowels change from OOH to AHH as you go higher up the keyboard. Key velocity opens the filter making things brighter. When the filter is open there is an airy presence. Lots of chorusing. The Mod wheel closes the filter making things darker.

PS 1. Doppler effect. PS 2; On first strike you only hear the OOH vowel and the filter is closed down making the sound very dark. Pushing the Mod wheel forward opens the filter and fades the AHH vowel in. PS 3; A more heavily chorused version of the original sound.

## M-1 ESSENTIAL #2

**BARBARIANS [432 BLOCKS]** The sound is layered in octaves with a percussive, metallic, cymbal/like attack followed by chorused synthetic voices. The loop is pretty noticeable in the upper register although there is no ticking or popping.

PS 1. Layered fifths. PS 2; Doppler effect. PS 3; Similar to Halloween. There is simultaneously, a volume swell, a filter swell while one voice's pitch glides up and one voice's pitch glides down.

**BEAUTY** A percussive string attack like a guitar with human voice/chorused strings underneath it. There is an airy noise in the background. PS 1. Layered fifths. PS 2; The percussive attack is a fourth below. I'm not sure if it is because of chorusing, some pitch shifting or what, but the intonation between the concert pitch and the fourth seems out of tune to me. PS 3; The percussive attack is deleted.

**BREATH** A synthesized vocal ensemble that is being chorused. There is a repeating filter sweep that emphasizes a background airiness.

PS 1; Take a guess! Layered fifths? Come on down! PS 2; In the left speaker is a voice in concert pitch which rhythmically

fades in and out. In the right speaker is a voice a fifth above and fades in and out at a much slower rate. Filter sweep. PS 3; Two voices a fourth apart glide downward to an interval of a fourth. Once their pitch is established a tremolo appears probably due to LFO amplitude or filter modulation. The volume then drops considerably.

**ENIGMA** A D-50/M-1 type airy flute with a wooden percussive attack. Lots of chorusing and a slight filter sweep every 1 1/2 seconds.

PS 1; Layered fifths. PS 2; If you play single notes one note will glide quickly to the next pitch. If you play a chord, when you release it the lowest note of a chord it will glide to what was the highest note of the chord. There seems to be a random factor as to when a note will appear in one speaker or the other. PS 3; The original sound with LFO filter modulation that occurs after you release the notes. This effect is reminiscent of a bastardized trill.

The sounds represented here indicate a lot of hard and skillful work. I do have one or two criticisms.

1. Of the five disks I listened to I found too many similar sounds, too many large synth pads. I would have preferred a greater variety of sounds. 2. Although I liked many of the Patch Select variations it seems as if a rubber stamp approach may have been used here. The EPS is has many creative possibilities and I know many more variations can be obtained. Last but not least, when an instrument has a sequencer, it's great to hear a musical example. Show me how you envision this sound. ■

# maestro knows...

The agony of techno-greed. It's that brooding frustration you get from knowing that the one sound you spent two hours playing in the music store last week is the only thing you need to finish your latest masterpiece.

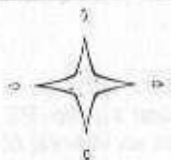
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\* Finally! 10 disks from the VFX-SD \*

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## maestro sounds

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Volume 3. Phenomenal orchestral strings, brass, choirs, ethereal and atmospheric washes, solo and ensemble acoustic instruments.

EPROM cartridges	one	two	three
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# The Mirage "Beat-Box"

by Michael Castronovo

Most modern sequencers and all drum machines have one feature in common...QUANTIZING. It may come with different names, but the effect is the same. Quantizing (or resolution) allows the user to put his notes or beats in an accurate time format. This could be anywhere from 1/4 to 1/96 notes or beyond. Because much of today's music is so precise, a steady beat is more important than ever. Unless you're an expert drummer (and even that might not help), without quantizing a simple 2 bar pattern is often beyond reach. The Mirage, for all its strong points, lacks this quantizing feature rendering it nearly useless as a basic rhythm source...till now. There's an easy way to develop a file of basic beats that allow the Mirage to help fill the gap.

## Here are the 3 basic steps.

**Step 1.** Borrow a drum machine from a friend. Change the MIDI note numbers on the drum machine to match those of the correct keys of the Mirage, i.e., Snare 38, Kick 36, etc. Remember, before you change any of the MIDI information on the drum machine WRITE DOWN THE ORIGINAL DATA FIRST so it can be changed back when you're done. Also set MIDI channels to OMNI, or the same number.

**Step 2.** Record your pattern in a 1 or 2 bar form in the drum machine. Leave some space after the pattern (or set the loop OFF so it doesn't repeat). I suggest using only the bottom octave of drum sounds so you can do a keyboard split with other instruments. Thus you end up with a basic Kick, Snare, Rim, beat (possibly using Hi-Hat if you extend that far up.)

**Step 3.** Connect the MIDI OUT of the drum machine to the MIDI IN of the Mirage. Boot up your Mirage drum bank (like Disk 4 Acoustic Drums U/L #1). Set the Mirage to record a new sequence by pressing the RECORD SEQ button 2 times. Push START (or play) on the drum machine and record the pattern. The only timing trick is to push the CANCEL button on the Mirage "in beat" with what should be the 1st drum sound to repeat the pattern.

Parameter 88 set to "ON" will allow it to repeat. This system will create a simple sequence pattern that can be saved on any open sequence location you choose. There are 8 locations per disk and the procedure is described on page 13 of the original owners manual.

Don't forget to keep a list of your sequence names..(Rock 16ths, Rap, Slow Ballad, etc.) Of course the tempo can be changed with ease using PARAMETER #87. By the way I've found it best to record with PARAMETER 87 set to its mid-point (48). This allows more room for later tempo changes. When you've got your basic beats down you can return the MIDI information on the machine back to its original setting. And then buy your friend a pizza for their help in making your Mirage do one more thing you thought it never could! These basic beats are not meant to be the

complete rhythm section of your song, just the basic steady track that you can build your song around. If you'd like too have a few of these beats but don't want to take the time to do them yourself, I've put together a disk of 8 of them (ROCK, ROCK16THS, RAP, SLOW ROCK, SHUFFLE, REGGAE, METAL 1, METAL2.) and included my own sampling of a drum kit titled "707." The disk is \$7.95 and postage is included (U.S. Cont.) Write to Mike Castronovo, Studio "B" 2215 Wilmette Dr. Rockford, IL 61108. Next time we'll take a look at some tricks to add some hi-end to the Mirage sound... ■

*Bio: Michael Castronovo owns a 16-track recording studio which includes Ensoniq and Kurzweil keyboards, has played keyboards since he was 12, and likes to make his 6-cyl Fiero get 25 mpg.*

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# Using the SQ-80 with Expander Modules and Drum Machines

by John Bolles

One of the many great things about MIDI is its ability to accommodate growth. The SQ-80 is an impressive piece of equipment and its capabilities could easily serve many users for a significant period of time, if not indefinitely. However, with some users, the time will come when even such a board as the SQ-80 will no longer be adequate for their needs. The SQ-80 allows certain types of growth-related problems to be solved by system expansion via MIDI. This is particularly true if the user's frustrations are with the quantity and quality of sound available.

It is almost an inevitability that experience with MIDI gear will prompt an awareness of new musical possibilities, many of which will necessitate having more than eight voices. Even something as simple as layering two string patches - one with a good attack and one with a full, sustained sound - will reduce note availability by 50%. Adding expander modules is a simple solution to this dilemma.

Sound quality is, admittedly, highly subjective. But there are two respects in which sound quality becomes an issue in the "MIDI-maturing" process. First, of course, is quality in the critical sense; the more one works with sound and equipment, the more one discerns "good" sounds from "bad" sounds. Sound quality in the timbral sense can also enter into the picture.

A guiding musical principle, understood even in the days before synthesizers, is the notion that music is enhanced when it is arranged so as to cover a broad frequency range. In most pop and rock music, bass guitars and/or synth lines support the bottom end, guitars and keyboards usually carry the midrange and low high range, and the high end is occupied by strings, inversions of guitar parts, etc. Rhythm tracks are thus enhanced by covering a broad frequency range, and since the parts are played by individual instruments, each with their own distinct sound quality, the overall sound is also influenced by the timbral variety present. The SQ-80 has many voices, but it is, in the final analysis, one instrument, and it has its own distinctive timbral characteristics, that is, sound. When using its multi-timbral capabilities for sequencing, the track may not sound as good as it could, because the various notes - although covering a broad pitch range - are emanating from one instrument. Reinforcing distinctions between individual voices can be achieved to a limited extent through mix levels, positions in the stereo field, and the patches themselves. However, different kinds of results can be achieved through the addition of expander modules.

For example, Yamaha FM synths, such as the TX81Z, have a very thin sound, in comparison to the SQ-80. However, that thin sound might be just what is needed to make a solo line cut through an otherwise purely SQ-80 sequence. It can also help a bass line cut through a mix, since heavy doses of treble EQ are routinely added to bass guitar parts for precisely this reason. If one is an ultra-loyal Ensoniq user who refuses to plug into anything other than Malvern-made gear, there is always the possibility of EQ-ing the expander unit differently, thus helping to differentiate it timbrally from the other components. In any case, the idea is to add new interest and dimensions to the track by introducing timbrally different elements.

So, as we travel down the road of MIDI maturity, we begin to

want more sounds, better sounds, different-sounding sounds. And, sooner or later, this path will lead the serious sequencer to that major MIDI crossroads, the drum machine. A good drum device will, without a doubt, add much in the way of sound and quality (in both senses of the word) and should be a serious candidate when considering an expander module purchase.

My choice for a drum machine was the Alesis HR-16. The HR-16 has received much well-deserved good press, mostly for the same reasons the Ensoniq keyboards have. Summed up, they all offer "the most bang for the buck." It has also been suggested in the press that the SQ-80 would excel as a master keyboard for an expanded system which could include a drum machine add-on. Because of the potential importance of the drum machine in an expanded set-up, the remainder of this article will be devoted to applications of the HR-16 in conjunction with the SQ-80 as a master keyboard. Although the HR-16 will be referred to specifically, many of the principles discussed should apply to many, if not all, drum machines.

The primary issue addressed in synth/drum machine articles I have read has been the "to sync or not to sync" question. The people who described their experience in the Hacker explained the pro's and con's as they saw them, and most had opted for the "not to sync" approach - utilizing the SQ-80 sequencer for drum performance data and using the drum machine as a sound source only. This is, no doubt, because the writers had garnered a good deal of experience with the SQ-80 and felt capable and comfortable with it. All the writers who went this route were perfectly satisfied with the results, and it served their purposes very well.

I approach the whole thing from a slightly different angle. Knowing that probably half the cost of the HR-16 was its sequencer memory, I could not bring myself to use it as a mere sound source. I was not about to spend my hard-earned money on a great machine like this and then use only half of its capabilities. This basic attitude caused me to move in that direction, work with the machine, and re-evaluate what I had read. Here is what I came up with:

1. Having to learn how to program another machine was cited as a drawback. In learning how to program the HR-16, I found that it had some capabilities that the SQ-80's sequencer did not have (the FILL option, for instance) and that I preferred programming drum parts on the HR-16's pads over playing drum parts on the SQ-80's keys.

2. The fact that the HR-16's memory is finite was cited as a drawback, since Sys-Ex data transfers might be required in performance.

Although I have not been programming the HR-16 long enough to find the limits of its memory, it seems to have a great deal. Furthermore, Sys-Ex transfer, to my mind, is rather quick, and can easily be accomplished between sets. A certain amount of organization is helpful in this regard. My approach is to have HR-16 Sys-Ex files correspond to SQ-80 sequence performance files. At the present time, one HR-16 sys-ex file contains the drum data for two SQ-80 sequence files. So, HR-16 file 1 serves sequence files 1 and 2, HR-16 file 2 serves sequence files 3 and 4, etc. With more economical use of the

drum machine patterns, this ratio could even be improved.

### 3. You will conserve SQ-80 sequence memory.

By utilizing a drum machine's sequencer memory, you save a tremendous amount of SQ-80 memory. One writer who opted for the "not to sync" approach was pleased to have three songs per sequence file. I have been able to get 7 to 8 full songs in each file, and have memory to spare. In one case, I had plenty of memory left, but no more sequence locations. So, again, with economical use of memory and sequence locations, 10 songs per file could be an achievable goal.

### 4. Not only does syncing conserve SQ-80 memory, it can also make drum machine memory go a lot farther.

By programming the HR-16 independent of the SQ-80, you are no longer locked into following the SQ-80's sequence pattern. For example, let's say an SQ-80 song consists of five eight-bar sequences, 1,2,3,4, and 5. Now you could program the corresponding song in the HR-16 to also consist of five eight-bar patterns. But let's suppose that sequences 1, 3, and 5 all have the same drum part. You can make one eight-bar pattern and use it three times. BUT let's also suppose that six out of the eight bars in the pattern are the same. That means you can accomplish all the drum parts required for 18 out of 24 bars of music with a single one-bar pattern. Telling the HR-16 to play a one-bar pattern six times uses much less memory than writing the pattern to include six identical measures.

Unlike Leonard Crockett, who wrote on this subject in TH #52 (Oct., 89), I use the SQ-80 as a clock source exclusively. The basic procedures for syncing are covered in the respective manuals for the SQ-80 and the HR-16. MIDI always sends out start and stop commands, so there are no tricks there. As long as there is a cable going from the SQ-80's MIDI OUT to the HR-16 MIDI IN, and the HR-16's clock is set to "MIDI and Internal" - the default setting - whatever is selected on the HR-16 will start to play in sync with the SQ-80's clock when the sequencer PLAY button is pressed.

When programming drum parts, especially when using the method described above, organization and planning will be extremely helpful, if not absolutely necessary. Knowing the order of the sequence in your SQ-80 song, what the individual sequences are (verse, chorus, etc.), how many measures are in each sequence, and so on, will keep you from getting confused when writing the HR-16 song that goes with it.

If you decide to have the HR-16's pattern structure correspond to the SQ-80's sequence structure, programming will be easier. Select the sequence you want to write a drum part for and set the LOOP setting (SQ-80's CONTROL page) to ON. When you are ready to start recording drum parts, check the following:

1. MIDI cable is connecting SQ-80 MIDI OUT to HR-16 MIDI IN;
2. HR-16 is in PATTERN mode;
3. Proper quantization value has been selected on the HR-16.
4. The number of beats (LENGTH) on the HR-16 coincides with the length of the SQ-80 sequences.

To write drum parts, press and hold RECORD on the HR-16, then press PLAY on the SQ-80. The SQ-80 sequence will start

to play and the HR-16 will be recording, waiting for you to hit the drum pads.

For example, assume the sequence consists of eight bars of 4/4, and the drum part is basically the same pattern throughout, except bar 1 has a crash and bar 8 has a fill. This kind of situation can be approached essentially the same way, except the HR-16 pattern length is set to 4 beats, instead of 32. As the SQ-80 sequence plays, the HR-16 pattern will continue to loop and the drum part can be written in this way. When the basic pattern has been completed to your satisfaction, it is a simple matter to copy that pattern to two other locations, and add the crash to one and the fill to the other, deleting whatever conflicting drum notes there might be. To audition the drum part, simply select the crash pattern first and play the SQ-80 sequence. While the first measure of the sequence is playing, select the HR-16 pattern which contains the basic pattern. When measure 2 comes along, the HR-16 will begin to play this pattern. Let it play until you are into measure 7, then select the fill pattern. When measure 8 comes along, the HR-16 will play that pattern. Obviously, when writing the drum song, the part will be assembled in the same way.

After all the drum patterns have been programmed and their order arranged into a song, you will want to run two together to make sure that two machines' parts line up with each other. Make sure the HR-16 is in SONG mode and press PLAY on the SQ-80. The two machines will start playing in sync with each other. As the song plays, follow the HR-16 through its steps (assuming the SQ-80 sequence is correct) and, if any mistakes in the drum part occur, you will know at what step(s). Correct any problem and run it again until you are satisfied.

Once you have the SQ-80 song and the HR-16 song exactly as you want them, you are ready to lock the two in together. Since the HR-16 accepts program change messages, you can have the HR-16 song automatically selected by putting a program change command in the first sequence of the SQ-80 song.

1. Select the song on the SQ-80 and go to the LOCATE page. This will show you, among other things, the number of the first sequence.
2. Press the SEQUENCE button and then select that sequence.
3. Go to the TRACKS page for that sequence.
4. Press the soft button corresponding to an existing track. Then press the soft button corresponding to an unused track (I use track eight). This will copy the track set-up to the unused track, although no sequence data will be on it.
5. Press MIX-MIDI and set the parameters to the following:
  - a. Mix level can be anywhere; the HR-16 does not respond to volume change messages from the SQ-80 sequencer. I set mine to OFF.
  - b. MIDI channel is set to whatever channel you have set the HR-16 up to receive on. I use channel 8.
  - c. MIDI status is set to "MIDI". By the way, setting all local tracks to "LOCAL" status on this page, instead of its default "BOTH," reduces the information going out into the MIDI data stream and can potentially reduce delays (this is right out of the manual).

d. MIDI Program Number is set to correspond to the HR-16 song number. This can be a LITTLE bit tricky since the HR-16 uses the true MIDI numbers as explained in the SQ-80 manual. Therefore, Program Number 1 will select HR-16 song 00, Program Number 2 will select HR-16 song 01, etc.

6. Make sure that the HR-16 is set to receive on the MIDI channel you've selected, that is its clock is set to MIDI and INTERNAL," and that the HR-16 is in SONG mode.

To check this out, first manually select a different song on the HR-16. Now when you select the song on the SQ-80 sequencer, you will see the HR-16 select its corresponding song. The song's being selected in this way has the same effect as selecting it manually. Pressing PLAY will send out a start command and the HR-16 will begin to play in perfect sync with the song. And it will keep playing until the SQ-80 stops. It won't stop with the beginning of the next sequence, nor will it re-start with the next sequence. since the HR-16 - when in SONG mode - can only respond to program change commands when it is stopped, you do not have to worry about the drum song restarting if the beginning sequence is repeated in the middle of the song (as in "Peg," for instance).

Another nice feature of this set-up is the ability to go to any step in a song. Let's say you want to focus on the bridge, step 6 in the SQ-80 song. All you have to do is make sure the SQ-80 song is selected and go to the LOCATE page. Press GO TO and increment to step 6, and then press GO TO again. The SQ-80 will go to step 6 in the song and the HR-16 will go to the corresponding location in its structure. This is great for rehearsing vocals when you want to concentrate on one section of a song, or from some point in the song on, etc. It is also good for auditioning drum parts; if you noted a problem area

during a previous pass through the song, and identified the location but did not quite isolate the problem, you can go right to that place in the song and listen to it. You CANNOT, however, record in this fashion. You can go to any step location in a song and audition it, but, to make revisions to the drum part while listening to the SQ-80 sequence, you must go back to the sequence.

To sum up, the addition of other sound sources can introduce new sounds, more sounds, better sounds, and a new dimension to tracks. One of the most effective such additions can be a drum machine because its capabilities make it flexible for tailoring to your individual needs. It also offers the benefits of freeing up SQ-80 memory, and some programming features not found on the SQ-80. Operation of the drum machine in sync with the master sequencer can be accomplished easily and reliably. ■

*Bio: John Bolles was the original lead guitarist with the contemporary Christian rock group Glad. Now, nine years and three kids later, he works as a Regulatory Affairs Manager with a medical device company and performs music part-time in private and public venues with his wife, electric guitar, and aforementioned MIDI gear.*

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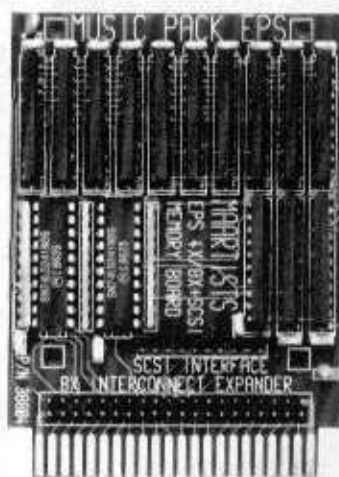
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# Variable Speed Leslie for the ESQ

by Jordan Cole

It's not what you got, it's how you use it. Sure, I'd love to own a B3 with a rotating speaker, or even a brand-new, hot-off-the-market synth with the ultimate Hammond organ sample, Leslie and all.

But all I've got is an ESQ. Now, don't get me wrong, I love my ESQ. I wouldn't trade it for anything else. (Everything else, maybe. But not any one thing.) So I've got to get as much mileage as I can out of it.

Which brings me to the reason for this article. Slowing down and speeding up up a rotating speaker effect—WHILE STILL PLAYING THE ORGAN PATCH! Now, I'm not an organ perfectionist, but it seems to me that much of the feeling in organ music is the sound of the Leslie changing speeds over chords and solos. So here's how I propose to do it with an ESQ and NO external device of any kind. (This will also work for the SQ-80.)

All you need is one patch and one of the ESQ's sequences. Note the patch below. This comes first. The only real difference with this organ patch is that the mod wheel detunes one oscillator from the other. The waveform is unimportant here so you can try this with any waveform you like.

The whole trick is in the sequence. Make this sequence one bar long and loop it. You only need one track and guess which patch goes there. Right! Now, turn on the click, I like 1/8, and get ready to record. You're not going to play any keys, though, but you are going to record the movement of the mod wheel. Get it now? You may not be able to move the mod wheel fast enough to simulate a rotating speaker on hyper, but the ESQ's sequencer can. Now start the sequencer on record, at the slowest speed, with an eight count intro. As you hear the click, move the mod wheel slowly toward the halfway point so you just reach it just in the middle between clicks and then bring it back again just as the next click occurs. This should be done smoothly—just as close to a sine wave as you can. You may not get it perfect the first time, but just get it to your liking and plan on redoing it later.

Now that that's done, turn off the click and intro and leave the sequencer on the TRACKS page. If it's not already selected, select the organ patch and play the sequence. Now play the keys, and as you're playing, move the DATA ENTRY SLIDER up and down slowly. Does it sound close? It does to me. There's lots of room for refinement, but that's the gist of it. Remember, you can not make this effect work unless you have your organ patch underlined on the sequencer tracks page AND you must be ON the TRACKS page to adjust the sequencer speed. Also, you won't be able to use the sustain pedal, but I've never seen an organ with one, anyway.

By the way, if you come up with anything nifty, please let me know, care of the Hacker. Good luck, and good hacking. ■

*Bio: Jordan Cole is a local keyboardist dreaming of a recording deal.*

ESQ-1 PROG: PATCH										BY: Jordan Cole	
	OCT	SEMI	FINE	WAVE	MOD#1	DEPTH	MOD#2	DEPTH			
OSC 1	-2	00	01	ORGAN	OFF	-	OFF	-			
OSC 2	-2	00	00	ORGAN	WHEEL	+01	OFF	-			
OSC 3	+0	07	00	SINE	OFF	-	OFF	-			
	LEVEL	OUTPUT	MOD#1	DEPTH	MOD#2	DEPTH					
DCA 1	63	ON	OFF	-	OFF	-					
DCA 2	63	ON	OFF	-	OFF	-					
DCA 3	00	ON	ENV1	-63	OFF	-					
	FREQ	O	KEYBD	MOD#1	DEPTH	MOD#2	DEPTH				
FILTER	75	00	00	WHEEL	+63	OFF	-				
	FINAL VOL	PAN	PAN MOD	DEPTH							
DCA 4	63	8	OFF	-							
	FREQ	RESET	HUMAN	WAV	L1	DELAY	L2	MOD			
LFO 1	-	OFF	OFF	-	-	-	-	-			
LFO 2	-	OFF	OFF	-	-	-	-	-			
LFO 3	-	OFF	OFF	-	-	-	-	-			
	L1	L2	L3	LV	T1V	T1	T2	T3	T4	TK	
ENV 1	+60	0	0	0	0	0	32	0	0	0	
ENV 2	-	-	-	-	-	-	-	-	-	-	
ENV 3	-	-	-	-	-	-	-	-	-	-	
ENV 4	+63	+63	+63	0	0	0	0	0	+3	0	
	SYNC	AM	MONO	GLIDE	VC	ENV	OSC	CYC			
MODES	OFF	OFF	OFF	0	OFF	OFF	OFF	OFF			
	SPLIT/LAYER	S/L PRG	LAYER	LAYER PRG	SPLIT	SPLIT PRG	SPLIT KEY				
	OFF	-	OFF	-	OFF	-	-				

## HYPERSONIQ NEW PRODUCT RELEASES

"Fourth-Party vendor," Digital Dreams has just completed *Soundset 1*—32 new programs for the Mirage running SoundProcess. Pianos, hybrid keyboards, strings, horns, soft washes, breathy textures and more. \$16.95. For information contact: Bruce Wallbillich, Digital Dreams, 162 Beech St., Covington, LA 70433.

Zimmerworks announces a new, touch sensitive sound modulator called a *Zeebar (tm) Fingerstrip*. A Zeebar is a soft, pressure controlled strip that sits on top of a synth or sampler and plugs into the pedal/CV input. The strip will work with any ESQ-1, SQ-80, EPS, VFX, or VFX-SD sound that has Pedal as a modulation source. The Zeebar is also designed to fit on the ledge underneath the keys, allowing subtle finger movements to take the place of foot pedal modulation.

T:mi Katronics, in Finland, is offering a 4X memory expander for the EPS. Unlike similar expanders being offered by other companies, the T:mi Katronics's expander may be purchased either completed (\$295), in kit form (\$250), or just a bare circuit board (\$40). The completed expander comes with a 2-year warranty. With the kits, you're on your own. For information contact: T:mi Katronics, Atraintie 6, 90550 Oulu 55, Finland.

# Tricks Using the VFX with a Sequencer

by Jeff Pettit

If you're like me, a guy who played in clubs for 10 years, then took a... (ugh) Day-Time-Job, then you probably have just enough time to sneak into your bedroom studio and cram in a few tracks before being interrupted. In those few precious moments you don't have time to re-read manuals, invent "Play-One-Note" patches, or debug exotic MIDI configurations! To maximize those few creative moments in the day, here's a few tricks to reduce your Techno-Music Overhead.

The Sequencer I use is Cakewalk, but it shouldn't matter what brand as long as it can do a few basic things like record patch changes, and send MIDI data out a specific channel. I will try not to talk to much about the sequencer (although it is half the story).

## The Master Keyboard Controller

Contrary to popular belief, the VFX makes an excellent master keyboard. The trick is using all of it. If your system consists of the VFX and an external sequencer, then using the Multi A/B Mode will work perfectly for all your situations. If you are using, for example, an HR-16 drum machine, a Proteus sample player (sorry, Ensoniq, I said I didn't have much spare time), and a couple of modified 'verb boxes, then you can use both the Preset mode, and the Multi Mode. That's right—the Preset Mode! Use the Multi mode exclusively for VFX sounds, and the Presets for external sound modules. Throw in the Base channel and you have a 16 channel Master Controller!

If you read the manual backwards you will discover the following tidbits: 1) The VFX will receive on up to 12 channels even if not in Multi A/B mode, as long as the MIDI control mode is set to MULTI. 2) The VFX will transmit MIDI data on 15 tracks, plus the Base, as long as the MIDI control SEND-CHN is set to MULTI. 3) Selecting a program in the Preset mode queues up the 3 program changes to be sent before the first note you play! Using these three facts allows you to control all 12 receiving Multi A/B tracks and 4 more MIDI channels all from the Preset mode. In all fairness, before I give you an example, Ensoniq has confessed to the (MIDI/BOTH blunder) by adding a new option in the VFX SD called EXT. This mode allows you to send MIDI data out the VFX but not receive MIDI data. But get this! They're not sure if they will put that option (bug fix) in the VFX! Until they do, try this:

SET MIDI Control:

MODE = MULTI

BASE = Some channel not defined in your Multi A/B, i.e., 16

SEND-CHAN= TRACK

PROG-CHG= ON

SET MULTI A/B MIDI channels example: 1-12

Select a sound to record from the front panel in Preset mode. (Press the Soft Button on the sound) Start recording into your sequencer. When you're done with the track, play it back making sure your sequencer forces the notes to a specified track. This is done in Cakewalk by assigning a MIDI channel to the track you have recorded. For example channel 1. The program you have selected should play back correctly. Try momentarily switching over to Multi A and watch the Program name appear out of thin air! What happened was that as you selected the sound to play, the VFX queued up the program change, then as you began to record the MIDI data the program change was the first thing recorded. When you played the channel back the (VFX supplied program) was sent to the corresponding Multi MIDI channel before the first note plays.

## The Free remote MIDI controller!

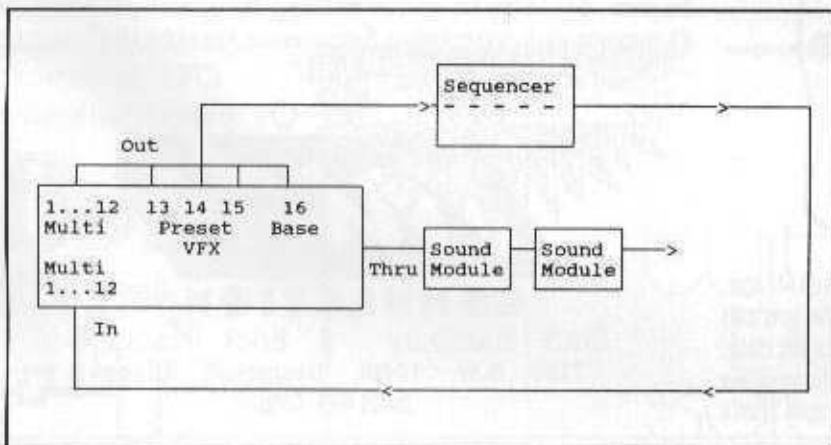
Who needs to buy a remote MIDI mixer when the VFX makes a great remote MIDI controller/mixer? It will send Pitch Bend, Modulation Wheel, Volume, Programs, Momentary Patch Selects, Timbre, and Release data, from a 15 channel mixing board, all in realtime. That's right—15! 12 Multi A/B channels plus 3 track in the Preset mode.

## MIDI Salt and Pepper

By setting your sequencer to overdub mode (turn Punch in OFF), you can layer these controls one take at a time. For example record a basic BASS track using the above procedure. Now go back, in overdub mode, and record some fancy slides, by moving the slide wheel, to give the effect of a fretless bass. With the same procedure add in some accents by playing the Patch select buttons. For the final touch go in and play the volume with foot pedal, or the preset volume for expression. This may sound a little exaggerated but a real bass player is supplying this, and much more. With a little practice you can create extremely realistic natural instrument tracks.

## Fix It in the Mix

If your sequencer can map MIDI input channels to tracks you can do complete realtime 15 channel MIDI mix downs by going to Multi A/B mode, or Preset Mode, and selecting volume, then adjusting tracks 1—15 in realtime. If your sequencer will not do this you can still play each of the sequencer tracks with the volume controls one track at a time. Most of the time this is a better approach anyway. Make sure that you select the program before adjusting volumes, or timbre. Just jumping back and forth between Volume channels will send all your changes on one MIDI track. After 6 years of MIDI sequencing, I found that adding MIDI salt and pepper makes a world of difference.



## Using Programs from a Pallet of 180 Sounds

One of the things that you will discover after you buy your first VPC-10X Sound cartridge for the VFX, besides the fact that the sounds are beautiful, is that you CAN NOT access all 180 sound from the Multi A/B mode. In the land of MIDI, 128 programs is all there is, guys. Ensoniq will tell you how the VFX will receive 180 (via tricks), but not how to access 180 via Multi A/B! If you have 180 unique sounds and you select a ROM Program from the Multi A/B mode you will get the INTERNAL Program for the same number, due to the overlap program numbering scheme.

The trick is to queue up the special program (126 select INTERNAL, 127 select ROM) program changes before you start your recording. To do this create 3 special Presets.

1) ACCESS INTERNAL PROGRAMS  
 MIDI CH    MIDI CH    MIDI CH  
 13            14            15  
 PROGRAM   PROGRAM   PROGRAM  
 126           126           126

2) ACCESS ROM PROGRAMS  
 MIDI CH    MIDI CH    MIDI CH  
 13            14            15  
 PROGRAM   PROGRAM   PROGRAM  
 127           127           127

3) ACCESS PROGRAM EFFECTS  
 MIDI CH    MIDI CH    MIDI CH  
 13            14            15  
 PROGRAM   PROGRAM   PROGRAM  
 125           125           125

To select from all 180 sounds practice the following procedure:

- 1) Press Preset (1) if the sound is in INTERNAL, or Preset (2) if the sound is in ROM.
- 2) Press Sounds INT, or ROM and the Program you want.
- 3) Record your Track.
- 4) Repeat process for next Track(s)

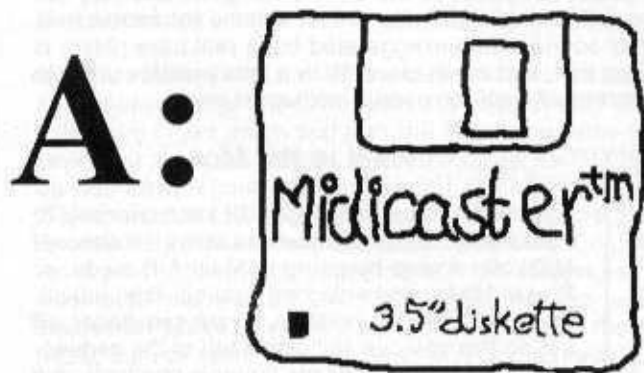
Here's what happens: When you select Preset 2, it gets loaded into the Edit Preset Buffer. When you select your Program, it loads into the right hand Track of the Preset Edit Buffer. When you record your data the following stream is transmitted. Program 127, Program 127, Your Program, Notes...

In addition to these three Preset working as MIDI macros for you, they are also your three External Module tracks. If you select, for example MIDI CH 14 Track, your data will be transmitted on channel 14

Well there you have it! A 15 Track realtime MIDI controller, capable of sending 8 types of MIDI data, and receiving 12 channels of MIDI data simultaneously! ■

*Bio: Jeff Pettit is a Senior Systems Analyst/Programmer for Intel Corp. He played guitar in Portland bands for 15 years, then retired from the Live Performance life to run a hobby recording studio out of his home. He has been working with Ensoniq/MIDI sequencing for the last six years.*

**Q:** If you own a Mirage, what's the cheapest way to get a system exclusive data librarian, a 20,000 note sequence player, a disk copier and formatter, a synthesizer, and an improved operating system?



Midicaster is an amazing new alternative to your current Mirage, Mirage DSM, or Mirage DSK operating system. With Midicaster, you can save sysex data (synth sounds, sequencer dumps, drum machine data, etc.) directly to Mirage diskettes. And you can load it back into those same Midi devices without disturbing the sounds loaded into your Mirage! That's

right - unlike with other operating systems, there's no need to re-load your Mirage after data transfers when you use Midicaster.

Midicaster also now includes a 20,000 note sequencer download function that allows you to record 16 channel MIDI sequences from your master sequencer directly into the Mirage, making the Mirage a portable "jukebox" type of sequence player. And the new "wave draw" function can teach your Mirage a couple of new tricks - namely, how to be a synthesizer.

Midicaster noticeably speeds up a number of normal Mirage functions, so you'll be saving time as well as money. Formatting diskettes with Midicaster is a breeze, and Midicaster is still one of the finest utilities available for backing up your important sound and operating system disks. As a matter of fact, Midicaster now includes so many new features that we haven't got the space to tell you about all of them here. But we can tell you the price - \$49.95 (by the way, we include a money-back guarantee). And it's easy enough to find out more. Simply ask us. We're the Midi Connection.

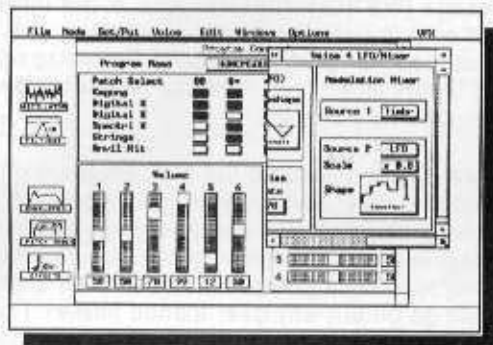
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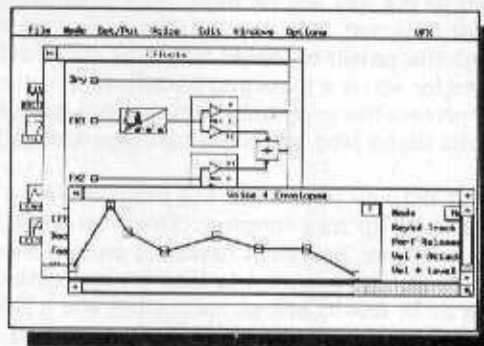
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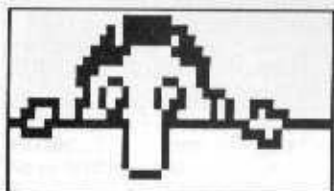
The list price for **Oview/VFX is only \$169**. If you'd like to see firsthand what we're talking about, we'll send you a **free demo disk** of Oview just for being our friend. Call or write, specifying your computer's graphics card and diskette size.

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Programmed by Famous  
Hacker Columnist

**Jim Johnson**

## Oview



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# VFX Hackerpatch

Prog: ALL WAV\*ORG, by Bradley Kaufman

I spent \$2000 to get a great organ sound! The ALL-WAVES organs (numbers 112 and 103) are brighter and fuller than their WAVEFORM counterparts. The MARIMBA wave adds a percussive sound tuned to the fifth. Timbre controls a half-baked filter sweep. The best feature is the detuning caused by the mod wheel which tunes the two "main" sounds in opposite directions to fatten the sound. The ENV 3 release values of 06\* removed a click caused by releasing the keys; the RESONANT1 sound still clicks anyway, but adds character to the O\* patch select. Pressure controls the roto-speaker rate. Keyboard scaling seems important in making the bass end sound halfway decent on this keyboard.

WAVES	1	2	3	4	5	6
Wave	Allwaves	Allwaves	Marimba	OrganV.3	OrganV.2	Resonant1
Wave Class	Multiwave	Multiwave	Tuned per	Waveform	Waveform	Transwave
Delay	000	000	000	000	000	000
Start	112	103	000	000	000	000
Length	001	001	000			Off
Direction	Forward	Forward	Forward			

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

PITCH	1	2	3	4	5	6
Octave	0	0	+1	0	0	-1
Semitons	+10	+10	+07	00	00	00
Fine	-23	-23	+00	00	00	00
Pitch Table	System	System	System	System	System	System

PITCH MODS	1	2	3	4	5	6
MODSRC	Wheel	Wheel	Off	Wheel	Wheel	Wheel
MODAMT	+12	+12	-	+12	-12	-12
Glide	None	None	None	None	None	None
ENV1	00	00	00	00	00	00
LFO1	00	00	00	00	00	00

FILTER 1	1	2	3	4	5	6
Mode	LP2	LP2	LP2	LP2	LP2	LP2
Cutoff	127	127	33	127	127	127
KBD	00	00	00	-86	-86	-86
MODSCR	LFO	LFO	TIMB	LFO	LFO	LFO
MODAMT	-55	-55	+86	-43	-43	-43
ENV2	00	00	+99	00	00	00

FILTER 2	1	2	3	4	5	6
Mode	HP2	HP2	HP2	LP2	LP2	LP2
Cutoff	00	00	00	127	127	127
KBD	00	00	00	00	00	00
MODSCR	PEDAL	PEDAL	TIMB	OFF	OFF	OFF
MODAMT	00	00	+70	-	-	-
ENV2	00	00	00	00	00	00

OUTPUT	1	2	3	4	5	6
VOL	99	84	70	99	99	99
MODSRC	OFF	OFF	OFF	OFF	OFF	OFF
MODAMT	-	-	-	-	-	-
KBD Scale	-18	00	00	-33	-42	-64
LO/HI Key	C2/C7	C2/C7	C2/C7	C2/C7	C2/C7	C2/C7
Dest Bus	FX1	FX1	FX1	FX1	FX1	FX1
Pan	50	50	50	50	50	50
MODSRC	OFF	OFF	OFF	OFF	OFF	OFF
MODAMT	-	-	-	-	-	-
Pre-Gain	OFF	OFF	OFF	OFF	OFF	OFF
Voice Prior	MED	MED	MED	MED	MED	MED
Vel Thresh	00	00	00	00	00	00

LFO	1	2	3	4	5	6
Rate	18	18	18	18	18	18
MODSRC	OFF	OFF	OFF	OFF	OFF	OFF
MODAMT	-	-	-	-	-	-
Level	00	00	00	00	00	00
MODSRC	Timbre	Timbre	Timbre	Timbre	Timbre	Timbre
Delay	00	00	00	00	00	00
Waveshape	SIN/TRI	SIN/TRI	POS/TRI	POS/TRI	POS/TRI	POS/TRI
Restart	OFF	OFF	OFF	OFF	OFF	OFF
Noise SRC RT	00	00	00	00	00	00

The Hack, by Sam Mims

I'm surprised at how much I like the Leslie effect controlled by key pressure - it really allows another degree of expressiveness. The marimba layer here is a nice touch as well, adding in a percussive attack. The mod wheel detuning doesn't have any effect in the OO patch select, other than slightly raising the pitch, and it seems too heavy on other patches; I tweaked these simply by changing MODAMT on the PITCH MOD page to -12 for voice 4 (ORGAN-V.3) and to +06 for voice 2 (ALLWAVES). Other than that, I like this organ a lot; it's got tons of character, and a good supply of punch.

## SELECT VOICE

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

## ENV1

	1	2	3	4	5	6
Initial						
Peak						
Break 1						
Break 2						
Sustain						
Attack						
Decay 1						
Decay 2						
Decay 3						
Release						
KBD Track						
Vel Curve						
Mode						
Vel-Level						
Vel-Attack						

## ENV2

	1	2	3	4	5	6
Initial			99			
Peak			99			
Break 1			99			
Break 2			99			
Sustain			99			
Attack			99			
Decay 1			99			
Decay 2			99			
Decay 3			99			
Release			99			
KBD Track			00			
Vel Curve			CV3			
Mode			NOR			
Vel-Level			34			
Vel-Attack			99			

## ENV3

	1	2	3	4	5	6
Initial	99	99	99	99	99	99
Peak	99	99	57	99	99	99
Break 1	99	99	00	99	99	99
Break 2	99	99	00	99	99	99
Sustain	99	99	00	99	99	99
Attack	20	20	36	00	00	00
Decay 1	20	20	06	37	37	37
Decay 2	20	20	00	30	30	30
Decay 3	20	20	00	52	52	52
Release	06*	06*	06*	06*	06*	06*
KBD Track	00	00	00	00	00	00
Vel Curve	CV1	CV1	CV2	CV2	CV2	CV2
Mode	NOR	NOR	NOR	NOR	NOR	NOR
Vel-Level	00	00	00	00	00	00
Vel-Attack	00	00	00	00	00	00

## PGM CONTROL

Pitch Table	OFF
Bend Range	02
Delay	X1
Restrike	00
Glide Time	00

## EFFECTS (1)

Effect	Roto+Spkr+Dly
DELAY	115
FX1	05
FX2	30

## EFFECTS (2)

HI ROTOR	
SLOW	00
FAST	70
LO ROTOR	ON
MOD SRC	PRESS
MODE	CONTIN

## EFFECTS (3)

LAG	020
REPEATS	+15
AMOUNT	+00
ST WIDTH	99

## PERFORMANCE

Timbre	99
Release	00

# Classifieds

## USER GROUPS

Looking for EPS owners to establish User's Group. Anyone interested in swapping sounds by mail please send name, address, phone number, and program list to: Cesar Soliman, 945 Kinney Way, Prosser, WA 99350. (509) 786-2323.

I would like to meet others in the Sydney, Australia area who own ESQ-1s. James Calcondis, 9 Reid Ave., Greenacre 2190, NSW, Australia.

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## WANTED

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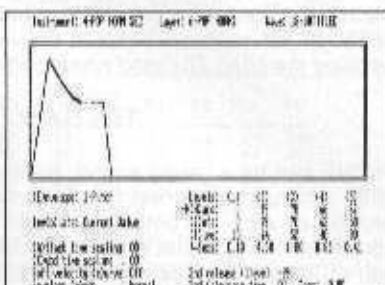
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# Hackerpatch

By Sam Mims

**HACKERPATCH** is intended to be a place where patch vendors can show their wares and musicians can share their goodies 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.

## ESQ Patch: TRBONE

by Steve Munro, Denver, CO

*Here's my entry in the horn department. It's simple and direct (hopefully), yet expressive due to the velocity response of ENV 3 controlling the filter. The mod wheel controls vibrato.*

### The Hack

TRBONE can be a useful sound, but it didn't strike me as being faithful enough to the real thing. To tweak it a bit more in the direction of a solo trombone, I first set up one of OSC 1's modulators to match that of the other two oscillators: LFO 1, at a depth of +02. This gives all three OSC's the same vibrato when the mod wheel is cranked up; otherwise, you get an ensemble effect. Secondly, the detuning of the oscillators fattened the sound, but detracted from the realism of a solo horn. I turned FINE of OSC 3 to 01, but I left OSC 2 detuned and instead turned SYNC (on the MODES page) to ON. This has a similar effect—it causes OSC 2 to exactly track OSC 1 in pitch.

We're sounding closer to a trombone now, but it still seems a little "blatty." To tone this down, I reduced the depth of ENV 3 on the FILTER page to +50; you'll have to set this to fit your own style of playing, and your own taste for "blattiness." But at this point, things are fairly close. On an SQ-80, change T4 of ENV 4 to 24R for a touch of reverb.

The AM mode is so often unpredictable that I like to turn it on whenever I'm fiddling with a patch, just to see what happens. Here, it gives an interesting synth-brass sound in octaves. Two patches for the price of one—can't beat it!

## ESQ Patch: FLLSTC

by Mark Velten, Columbus, OH

*While trying to create some nice clean staccato sounds, I came up with this patch. It has a full and rich, yet crisp sound that works well on both ends of the keyboard. Use it for accentuating tight rhythmic patterns, as well as for fast scales up and down the keyboard. Increasing the value of the filter frequency adds a sharp little buzz to the sound.*

### The Hack

This is the type of sound where you really appreciate having a digital reverb. FLLSTC is interesting on its own, but a touch of 'verb really wakes it up. (Again, if you're an SQ-80 dude or dudette, use the "R" values of ENV 4's T4 for this.) You can make the sound even more poppy by simply turning off the AM mode. Another variation: try turning the filter resonance up to 25 or so for a "chirpy chicken" effect.

I played around with the OSC 3 settings, and liked raising OCT to -2 or -1. Other waveforms work well here, too. My faves: SQUARE and SQR 2 with OCT at -1.

## SQ-80 Patch: SWEEPS

by Kirk Slinkard, Lakewood, CO

*For variations of SWEEPS, try setting the KEYBD parameter (FILTER page) to 32, or try turning on the AM. This program sounds good if you play it with big, widely spaced chords.*

### The Hack

SWEEPS is very smooth and very analog-ish. It's interesting to play because different attack velocities make each note sweep in at a different rate; a simple chord can sound really big this way. It seemed to cut off a bit quick for my tastes, so I added in some release time by changing T4 of ENV 4 to 51R, and by changing T4 of ENV 1—which controls the filter sweep—to 49. The mod wheel introduces a very subtle and tasteful vibrato—just enough to hint at a bit of motion. The CV pedal raises the pitch of OSC 1 by an octave—lots of fun while sustaining a big fat chord. Key pressure adds in another bit of "wiggle" to the sound. With all this player control over the different aspects of the sound, it can be very expressive and fun to play. And transferring it to an ESQ is a cakewalk; ignore the L's and R's in the envelopes, and either substitute another modulator for PRESS, or play the ESQ from an aftertouch-sensitive MIDI controller.

## SQ-80 Patch: SHIMMR

by Charles R. Fischer, Mescal Music

*Playing SHIMMR with the mod wheel full off produces a sustained digital sound that we've heard so often over the last few years—nice, but nothing new. Now, set the mod wheel to maximum and play arpeggios or broken chords, and the results should be pleasing. The LFO crossfade between DCA 1 and DCA 2 produces an interesting changing timbre that sounds similar to phase shifting. By changing LFO 1's rate and T4 of ENV 4, you can tweak this patch to accommodate different tempos. Hint: closed chord voicings will produce a deeper phase effect than open chords.*

### The Hack

This is a nice one, and I wouldn't do much to change it. The mod wheel effect is very interesting, essentially crossfading between the SYNTH 3 and BELL waveforms. Of course, I tried turning on the AM mode, and it gives a more ringy shimmering sound that you might like as well.

I made an attempt to "port" this to the ESQ. In addition to ignoring R's and L's in the envelopes, and changing VEL-X's to VEL 2's, I tried a quick and dirty imitation of the PLUCK transient wave. First, I substituted SQUARE 2 for the waveform. But it needs to pluck rather than sustain, so I set up ENV 2 as follows: L1=+63, L2=+12, L3=+00, LV=00, T1V=00, T1=00, T2=07, T3=26, T4=09, TK=09. Then I went to the DCA 3 page and reset MOD #2 for ENV 2=+63, and LEVEL=00. And there you have it.



*Bio: Sam Mims is a studio session player in Los Angeles, and a member of the band THE NEWKS. He is a Contributing Editor for GIG magazine, and owns Syntaur Productions—a company that produces music for television, radio, and film. In addition, Syntaur markets synth patches for the ESQ-1 and SQ-80.*

**ESQ-1 PROG: TRBONE**

BY: Steve Munro

	OCT	SEMI	FINE	WAVE	MOD#1	DEPTH	MOD#2	DEPTH
OSC 1	-1	00	00	SAM	OFF	-	OFF	-
OSC 2	-1	00	03	SAM	LFO1	+02	OFF	-
OSC 3	0	00	02	PULSE	LFO1	+02	OFF	-

	LEVEL	OUTPUT	MOD#1	DEPTH	MOD#2	DEPTH
DCA 1	63	ON	OFF	-	OFF	-
DCA 2	63	ON	OFF	-	OFF	-
DCA 3	63	ON	OFF	-	OFF	-

	FREQ	Q	KEYBD	MOD#1	DEPTH	MOD#2	DEPTH
FILTER	025	02	00	ENV3	63	XBD2	+20

	FINAL VOL	PAN	PAN MOD	DEPTH
DCA 4	63	08	KBD2	+20

	FREQ	RESET	HUMAN	WAV	L1	DELAY	L2	MOD
LFO 1	22	ON	OFF	TRI	00	02	26	WHEEL
LFO 2	-	-	-	-	-	-	-	-
LFO 3	-	-	-	-	-	-	-	-

	L1	L2	L3	LV	T1V	T1	T2	T3	T4	TK
ENV 1	-	-	-	-	-	-	-	-	-	-
ENV 2	-	-	-	-	-	-	-	-	-	-
ENV 3	63	55	49	63	13	18	61	20	46	09
ENV 4	63	55	51	08	14	15	51	34	24	09

	SYNC	AM	MONO	GLIDE	VC	ENV	OSC	CYC
MODES	OFF	OFF	OFF	05	OFF	OFF	OFF	OFF

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

**ESQ-1 PROG: FLLSTC**

BY: Mark Vollen

	OCT	SEMI	FINE	WAVE	MOD#1	DEPTH	MOD#2	DEPTH
OSC 1	0	0	0	VOICE2	OFF	-	LFO1	-05
OSC 2	0	0	0	VOICE2	OFF	-	LFO1	+05
OSC 3	-3	0	0	ORGAN	OFF	-	LFO1	+05

	LEVEL	OUTPUT	MOD#1	DEPTH	MOD#2	DEPTH
DCA 1	63	ON	ENV2	+04	OFF	-
DCA 2	63	ON	ENV1	+53	OFF	-
DCA 3	62	ON	ENV2	+58	OFF	-

	FREQ	Q	KEYBD	MOD#1	DEPTH	MOD#2	DEPTH
FILTER	00	00	56	ENV2	+19	OFF	-

	FINAL VOL	PAN	PAN MOD	DEPTH
DCA 4	63	08	KBD2	+49

	FREQ	RESET	HUMAN	WAV	L1	DELAY	L2	MOD
LFO 1	22	ON	OFF	TRI	00	00	63	WHEEL
LFO 2	-	-	-	-	-	-	-	-
LFO 3	-	-	-	-	-	-	-	-

	L1	L2	L3	LV	T1V	T1	T2	T3	T4	TK
ENV 1	+63	00	00	00	00	00	31	00	22	28
ENV 2	+63	+03	00	24	00	00	00	00	00	00
ENV 3	-	-	-	-	-	-	-	-	-	-
ENV 4	+63	00	00	00	00	00	31	00	20	38

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

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

**SQ-80 PROG: SWEEPS**

BY: Kirk Slinkard

	OCT	SEMI	FINE	WAVE	MOD#1	DEPTH	MOD#2	DEPTH
OSC 1	-1	0	0	SAM	LFO1	+1	PEDAL	+24
OSC 2	-1	0	5	SAM	LFO1	+1	LFO2	+1
OSC 3	-2	11	27	SAM	LFO1	+1	LFO3	+1

	LEVEL	OUTPUT	MOD#1	DEPTH	MOD#2	DEPTH
DCA 1	49	ON	OFF	-	KBD2	-7
DCA 2	48	ON	LFO2	-5	KBD2	-7
DCA 3	47	ON	LFO3	-4	KBD2	-7

	FREQ	Q	KEYBD	MOD#1	DEPTH	MOD#2	DEPTH
FILTER	00	18	0	ENV1	+63	ENV1	+25

	FINAL VOL	PAN	PAN MOD	DEPTH
DCA 4	63	8	KBD2	-63

	FREQ	RESET	HUMAN	WAV	L1	DELAY	L2	MOD
LFO 1	23	ON	OFF	TRI	0	0	0	WHEEL
LFO 2	26	OFF	ON	TRI	27	0	0	PRESS
LFO 3	25	OFF	ON	TRI	29	0	0	PRESS

	L1	L2	L3	LV	T1V	T1	T2	T3	T4	TK
ENV 1	+63	+51	+63	100	35	52	46	53	41	0
ENV 2	-	-	-	-	-	-	-	-	-	-
ENV 3	-	-	-	-	-	-	-	-	-	-
ENV 4	+63	+63	+63	00	32	40	0	0	25R	0

	SYNC	AM	MONO	GLIDE	VC	ENV	OSC	CYC
MODES	OFF	OFF	OFF	0	OFF	OFF	OFF	OFF

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

**SQ-80 PROG: SHIMMER**

BY: Charles R Fischer

	OCT	SEMI	FINE	WAVE	MOD#1	DEPTH	MOD#2	DEPTH
OSC 1	+1	06	29	SYNTH3	ENV1	+01	OFF	-
OSC 2	+0	00	00	BELL	LFO2	-01	OFF	-
OSC 3	+1	11	29	PLOCK	KBD	+01	VEL-X	+01

	LEVEL	OUTPUT	MOD#1	DEPTH	MOD#2	DEPTH
DCA 1	44	ON	LFO1	+26	OFF	-
DCA 2	54	ON	LFO1	-40	OFF	-
DCA 3	40	ON	VEL-X	+21	KBD	+12

	FREQ	Q	KEYBD	MOD#1	DEPTH	MOD#2	DEPTH
FILTER	100	15	00	OFF	-	OFF	-

	FINAL VOL	PAN	PAN MOD	DEPTH
DCA 4	60	08	LFO1	+35

	FREQ	RESET	HUMAN	WAV	L1	DELAY	L2	MOD
LFO 1	10	ON	OFF	TRI	00	00	00	WHEEL
LFO 2	63	ON	ON	NOI	00	00	00	ENV1
LFO 3	-	-	-	-	-	-	-	-

	L1	L2	L3	LV	T1V	T1	T2	T3	T4	TK
ENV 1	+35	-32	+00	00	00	00	06	08	00	00
ENV 2	-	-	-	-	-	-	-	-	-	-
ENV 3	-	-	-	-	-	-	-	-	-	-
ENV 4	+63	+00	+00	24L	00	00	48	32	40R	22

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

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

# 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.

Dear TH,

I'll make this short and sweet. I took my VFX back to my dealer yesterday to have it sent back to the factory for the major upgrade. While I was there, I took the opportunity to really check out the VFX-SD. Nice machine! I think I would have bought it had it been available at the time that I bought my VFX. Anyway, I was intrigued by the percussion sounds in the VFX-SD, so I went to the wave page to see where some of those sounds were coming from. Lo and behold, when I got to multiwave (the last waveform on my VFX) there were additional waveforms beyond that! Just look at all those sampled percussion waveforms! Well, you can probably guess what my question is going to be. Hey, Ensoniq, how 'bout making these waveforms available to those of us who bought the regular VFX? Is that possible? I would gladly pay for an upgrade of that sort. Drums and such are pretty weak in the original VFX. Guess that's about it. It's worth considering.

Thanks,  
Mike Suenram  
Albuquerque, NM

*[Ensoniq's response - The VFX-SD uses a completely different main PC board than the VFX, and there is no way to add the additional waveforms without extensive modifications to the VFX board and the operating system software. The additional space on the board and the ROMs add cost to the product and we wanted to hold the cost of the VFX down.]*

Dear Sir/Madam,

I do not understand what System Exclusive is, what it stores, or how to create a MIDI file to transmit data from the EPS. Also, I have not been able to receive data through the System Exclusive function. Any help would be appreciated.

Yours sincerely,  
James Benson  
Newcastle, Australia

*[Ensoniq's response - When MIDI was first created the designers realized that although many messages (such as note-on, note-off and pitch bend, for example) could be common between all products, each product would also contain information which was "exclusive" to that product. For instance, the storage of programs or sequencer data is different for almost every product.*

*To handle this they created MIDI System Exclusive messages which allow different products to send and receive data that is not part of the standard MIDI communications. The most common use of System Exclusive information is to allow a given*

*product to send its internal programs and/or sequences to an external device (such as a MIDI disk drive or computer-based librarian) for storage purposes. The external device can then send the data back to the product in the future.*

*Since the data is exclusive to the product, it will be ignored by all devices except the one for which it was intended. To that end, each product has its own specific System Exclusive ID number, which precedes all such transmissions.*

*The EPS (as well as the VFX-SD and the SQ-80) can be used as a storage device (referred to as a MIDI SysEx recorder) for all of your MIDI products which are capable of transmitting their memory as System Exclusive data. This allows you to back up the memory of your drum machine, sound modules, MIDI-compatible reverber units, etc. You can find instructions for using the MIDI SysEx recorder function on page 19 of the EPS Advanced Applications Guide.]*

Dear Folks,

I am a contented owner of a **Mirage DSK** and an **ESQ-M**. I have been reading the ads and reviews for third-party sounds in the Hacker for over 2 years now and have to ask you a question:

What does it mean when the ads say that ESQ patches are available "on Mirage disk"? This must seem self-explanatory to the copy-writers, but I've held back from many "almost-purchases" because I'm not exactly sure what that means.

As you know, the ESQ-M has no cassette interface, and buying cartridges is far too expensive when you own a patch librarian and only one in five sounds you buy are keepers anyway. So this "Mirage disk" option is appealing. Does it mean that these disks are self-loading? Or is it assumed that we already have some other strange OS or utility disk such as the "Iguana" or something? I wish the ads were more specific. Can I sagely purchase these sounds and really expect to load them? I'd appreciate it if you could quickly explain the process, since several advertisers assume that we all understand it already.

With cash in hand,  
Kenneth Tkacs  
Milford, CT

*[Ensoniq's response - Unfortunately, the Mirage storage format will not work with your configuration. The ESQ-1 (keyboard version) can send its sequencer data to the Mirage via a special System Exclusive message (see previous letter). The 40 internal programs are included in the data, "piggy-backed" with the sequencer data.*

*Though this was designed as a means of sequencer storage (the sounds alone cannot be saved to Mirage) many people use it to exchange sounds. The ESQ-M, lacking a sequencer, does not have the ability to retrieve this data.]*

Dear Hacker,

I want to go on record as being opposed to Ensoniq's current service policy. I would encourage those of you that feel the same as I do, to boycott Ensoniq products. Perhaps this may get Ensoniq's attention.

The service policy I am referring to reads like this: if I own an Ensoniq keyboard (in or out of warranty), I cannot buy parts to repair or customize it myself. If this isn't outrageous enough, I'm held hostage by having to cart my keyboard off to an authorized service center to get it repaired. To add insult to injury, I have to pay a \$37.50 minimum service charge to replace (swap) a board which I could easily do myself. This scenario doesn't take into consideration the inconvenience of travel time and expense of being without my "baby" for an extended period of time. I will give credit to Ensoniq for sending their parts out UPS Red and Blue label. Unfortunately, in my area, the service center seems to run at a snail's pace.

Sears tried this same tactic some years ago. As a result of a legal suit, Sears is currently required to sell any replacement part to a consumer - upon request - no questions asked.

Now Ensoniq, there's an interesting twist. Instead of being sued because someone hurt themselves while doing an unauthorized repair, you could get sued because you refuse to sell parts to your customers.

So be forewarned! Those of you out there that are contemplating purchasing an EPS or a VFX, watch out when it "quits" - and it will quit someday! You are in for major repair headaches and down time. All I can say is I hope you have a good-paying gig, because you'll need it.

So until things change at the head office, I'm off of Ensoniq. If you need parts for your DX-7 or FB-01 give Yamaha a call. It's even toll free: 1-800-443-3548.

Sincerely,  
James Rosand  
Port Angeles, WA

*[TH - Jeeze, we thought it was bad enough when people reached for a lawyer whenever someone did something they didn't like - now they're starting to do it when someone DOESN'T do something that they wish they would. Where is this going to stop? Are we going to get hints of legal action if we don't*





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*publish enough articles of the type you think you deserve? Is this really the kind of world you want? Do you have to get sued by an audience for not playing the type of music they want to hear before you see the principles involved?*

*Ensoniq (like every other company on the planet) brings a certain mix of features to the table. They juggle their resources in the way they think is going to get them the most sales. Potential customers can agree or disagree. (We ourselves have mentioned in these pages that we'd naturally prefer to be able to obtain all schematics, etc.) Feedback is great, bitching is great - that's what helps them find a better mix. Taking your dollars elsewhere is fine - that, too, provides info to the market. Even boycotts are legit parts of this whole process. But as soon as force (e.g., lawyers) enters the arena, it throws the whole market optimization process out of kilter and can only move things AWAY from the direction that consumer dollars are pointing. Speaking as a consumer, thanks, but NO!*

*[Ensoniq's response - We understand your concerns and this forum (the Hacker) allows you to air your gripes with our policies. We have no plans to alter those policies but thank you for your feedback.]*

Dear Hacker,

I would like to announce the completion and availability of the Hacker Compilation Tape. It has taken about a year, but I have now compiled 90 minutes of music produced and composed by 12 different Hackers on Ensoniq gear. The songs cover a wide spectrum of styles, including pop, rock, experimental, New Age, and classical, not to mention some that falls into no particular category at all (eg., Greg Lief's "To Kill a Cow," a tongue-in-cheek pro-vegetarian polemic) included on the project, so there is a wide representation of both compositional and technical abilities. It was fun to get to know some of the Hackers through their music, letters and the occasional phone call.

If you would like a copy of the tape, send \$4, payable to me, to my address at the end of this letter (the money just covers the cost of the tape, mailer and postage - no profits!). You will receive 90 minutes of music dubbed onto a Maxell XL II cassette and a sheet giving you whatever info the different Hackers sent me about their gear, their compositions, their tricks and themselves.

Now, a couple of items for Ensoniq: I have heard rumors here in the Pacific Northwest to the effect that EPS OS 2.4 should not under any circumstances be used, that it could permanently damage your EPS, and should not even be allowed in the same room as your EPS. Since I heard the rumor, I've been using 2.35, but I miss some of the sequencing goodies on 2.4. Can you (or other Hackers) shed any light on this?

This next one might be of interest to you seafaring Hackers. During the holidays I

took my ESQ-1 (OS 3.2) on a friend's 40-foot tri-cabin trawler, the sequencer packed with Christmas carols to blast out to the poor souls who live along the water of Puget Sound. The boat is equipped with a 1200 watt 60-cycle inverter, and my ESQ did not like it at all. The tempo shot up to 250 (not the most sensitive rendition of "Silent Night"...), and my poor ESQ's brains were scrambled worse than I've ever seen them, the display showing nothing but Martian poetry, and the sequencer spewing out bits and pieces of miscellaneous Christmas music by fits and starts at a remarkable speed. The captain theorized that the ESQ orients its clock speed to the cycles of electrical current it is receiving, which of course threw us into a debate about epistemology and objective reality. Why was my ESQ such a humbug? (don't worry - it seems OK after reinitializing it in dry dock.)

My address for the Hacker Compilation tape (don't forget the \$4):  
Hacker Compilation Tape  
c/o Steve Vincent  
3615 66th Ave W  
Tacoma, WA 98466

*[TH - A lot of power inverters put out a 60 Hz SQUARE wave (that being a lot easier to produce with any kind of efficiency than a pure sine wave). This is fine for such things as, say, curling irons and light bulbs, but unfortunately, it'll have all sorts of higher harmonics riding along with the fundamental 60 Hz. We wouldn't let THAT in the same room as any electronic gear.]*

*[Ensoniq's response - It is certainly not the case that OS v 2.4 should not be used. There are problems with the Copy Disk function which was implemented in that release - using the Copy OS command from a copied disk can lead to unpredictable results when the copy is used. You should use only the Master copy of the OS disk to make copies.]*

*There is no way that a bad OS can harm the EPS.*

*Regarding the power supply on the boat, there are a number of concerns in addition to those raised by the Hacker: there is no earth ground on a boat, and the ESQ-1 is designed for operation with a properly grounded 3-wire system. In this situation it is important to ensure that all equipment is properly polarized or significant (and dangerous) ground loops can develop. This can put high voltage on the ESQ-1 ground and scramble the memory or possibly damage the ESQ-1.]*

Dear Transoniq Hacker,

First, thanks to TH for providing this forum for owners of Ensoniq products. I look forward to receiving it each month as there are always many useful user suggestions/ideas. I'm sorry I can't offer any novel or elegant sampling/editing tips at this time but I hope you publish this letter anyway.

I am writing to express my disappointment with Ensoniq product reliability and the

quality of factory warranty service. I would have written sooner, but I decided to make use of my EPS-M while it's working (sort of) and catch up on projects that were delayed due to "technical difficulties."

"Ain't No Such Thing As a Bargain" - or, "This is Service???" (a true story) by Jim Piekarski:

On July 30, 1989 I "invested" a substantial portion of savings in an Ensoniq EPS-M sampler. The new unit, serial # 10078-J, was purchased from Kraft Keyboards, Waukesha, WI. At the time of my purchase I believed I was really getting a bargain. The features per dollar offered by the EPS-M plus the relatively good sound quality made the M seem like a sensible, cost effective choice for an entry level or better digital sampler. I conducted extensive product research (as there are no refunds or exchanges in the music retail business) for quite some time prior to my purchase and took into full account the results of the infamous March '89 KEYBOARD sampler tests. One of the features I particularly liked on the EPS-M was the SCSI interface and parallel processing functions implemented in Blank Software's ALCHEMY 2.0 (a great program). All things considered, the EPS-M seemed like an excellent bargain.

The first of my problems began shortly after my purchase. Upon booting the O.S. the unit looks for instruments. As soon as it went to look for instruments, a buzzing came from the audio outputs. This problem was exacerbating when I attempted to run ALCHEMY 2.0 on my Macintosh using the SCSI interface.

At this point I should like to note that before running off to the local authorized repair facility, I thoroughly tested to see if the problem was not being caused by something in my own system. The EPS-M is mounted in its own separate rack case and all wall outlets are grounded. I checked all audio cables and tried two other shielded SCSI cables (all SCSI cables limited to 3 ft.). All audio cables are of the highest quality (Beldon 8401 braided shield w/Switchcraft ends for high impedance applications and Beldon T-8451 w/Switchcraft ends for all low impedance applications in other parts of the system). I tried ground lift adaptors in various combinations and went so far as to disconnect all appliances and ran power from all possible circuits in the apartment. I tried each circuit alternately with and without a Tripplite LC 1200 line stabilizer/power conditioner. Finally I took the EPS-M and Mac to other locations and even tried hooking it up to another Mac with no change in the buzzing condition. I did this procedure before each of the three times the EPS-M was returned for service. (Just what we all need in life...more anxiety and aggravation.)

The first warranty repair, Sept. 13, 1989 (EPS-M less than 2 months old) was performed at Audio Electronics, Dallas, TX. At this time a new power supply board was installed. Cost me...to implement warranty service...\$54.00 (in expediting fees) to

Audio Electronics, otherwise I would have to wait approximately 6 weeks for service. I bear no ill toward Audio Electronics as this is their policy no matter who you are or what your repair needs are. They are the only authorized Ensoniq service center (as well as servicing products of about 30 other manufacturers) in the North Texas area and are quite busy. (Perhaps Ensoniq could designate an alternate authorized repair facility in such an area as large as Dallas/Ft. Worth.) As I am a graduate student majoring in electronic music at the University of North Texas (2nd largest music school in the U.S.) it was imperative to have the EPS-M in order to work on a project which hopefully will be included in an upcoming CD compilation of works of U.N.T. faculty and student composers. I had no choice but to pay \$54. The new power supply board gave no improvement to the buzzing problem.

Desperate to get the unit in working order...all the time dealing with the anxiety of having spent such a large sum of money and thinking of what a great mistake I may have made buying the EPS-M... I sent the unit back to the factory (return authorization no. CD 98556) on October 16, 1989 at a cost of \$34.00. I received the unit back from Ensoniq on October 26, 1989 with a return shipping cost to me of \$30.75. I apparently misunderstood or it was not made clear to me which party was to pay for UPS Blue Label return shipping charges. The front panel and front panel buttons had been replaced (they were becoming quite loose) as was the power supply and the output board. I also requested that stripped threads for screws holding the chassis pans together be checked. Ensoniq repaired this with some kind of glue(?). Much to my dismay and disappointment the repair technician who worked on this unit left fingerprints and smudges on the inside of the display window when replacing the front panel! This is service?? As I do not wish to void my warranty I have left them there, annoying as they are. Oh yes, the buzzing...was still there.

On October 31, 1989 the unit was sent back to Ensoniq (return authorization no. CE 98189) for further testing and repair... and additional shipping costs of \$17.42. At this time an 8 out expander board was installed. The unit was returned and received by me November 16, 1989. (In fairness I should like to note that the unit was shipped back to me UPS Blue Label at Ensoniq's expense to offset the previous shipping mix-up.) Half the buzzing problem had been remedied. Now it only buzzes when I have the EPS-M and the Mac connected via SCSI to run AL-CHEMY. However, now in addition to smudges and fingerprints inside the display window from the last warranty service, the right edge of the front panel has been (albeit slightly) scraped/nicked up and the lower right corner slightly bent in. I thoroughly inspected the shipping carton for signs of damage that may have been incurred during shipping and could find none. This is service?? Ensoniq was notified by phone within minutes of my receiving the unit and damage noted for future rectifica-

tion. Now the floppy disk drive eject button is coming loose (and I'm confident it will fall off or become jammed at the most inopportune moment). What next?? I shudder to think.

So here I sit with an instrument that is operationally better but cosmetically worse condition than when it was purchased...with all the cosmetic damage to my \$3295.00 EPS-M done by the repair technicians at Ensoniq. (Again...in fairness to Ensoniq, I believe the stripped screw threads in the chassis pans are from Audio Electronic's use of electric screwdrivers.) Perhaps Ensoniq owes it to its customers to inform them if they have no interest in giving conscientious, quality warranty and repair service. Do the folks at Ensoniq think I'm being petty? Are the scraped up front panel edges and a smudge display window a big deal? Well, maybe not to you, at Ensoniq who see a plethora of gear pass through the repair shop daily. Would you yourself at Ensoniq accept such service on your own personal gear/car/house etc., etc.? I sincerely hope the answer is no. Attention to detail is what separates the "winners" from the "also rans". Please be a "winner."

In closing, my EPS-M...a "bargain"? You be the judge.

Total time of ownership: 5 months  
Time this costly unit was "in the shop": 28 days  
Inconvenience, project delays, missed op-

portunities: approx 2 months  
Cost of cosmetic damage from Ensoniq lowering potential resale value: \$?  
Total cost to implement warranty service: \$136.17

Once again in fairness to Ensoniq the customer service I dealt with were always courteous and with the exception of the buzzing still caused by the SCSI/EPS-M/Mac, the EPS-M is a fine sampler. I hope in the future Ensoniq will give more attention to quality control in their service department as well as consider upgrade instrument design and construction materials for future products to that of a more durable nature before actual production begins.

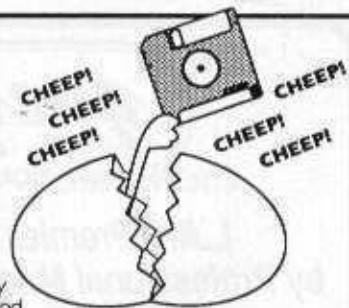
If any other readers are experiencing similar buzzing problems with the Mac to EPS-M/EPS SCSI interface, or any other SCSI device for that matter, I hope they will write in as to any solution they may have found. Has anybody had any similar problems using any "approved" or "unapproved" hard drives?

Sincerely,  
Jim Piekarski  
Wauwatosa, WI

[Ensoniq's response - Rob Bonnano (Customer Service) contacted this customer directly and has worked out his problems. The most important part of customer service issues like this is being able to work with one another. We are sorry for the trouble

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1-206- 242-9220

and inconvenience Mr. Piekarski experienced and promise to continue to improve our systems to avoid this type of problem in the future.]

[TH - We don't really see why you let Audio Electronics off the hook so easily. When you first got it back from them the problem hadn't been fixed (expediting fees and all)! It seems like this is where the whole unfortunate chain of events at least got started.]

Dear TH,

Just received my SLT-8 Drumkits/Bonus Beat package. Ensoniq did VERY well on having Toss Garfield, the Drum Doctor, put the sounds together. My HR-16 experiences made me buy the same day I read TH. Truly kick-ass sounds, the pans are NICE. The sequenced drum parts are really good and I am hoping many more to come in the near future. I am using my EPS to play my D-110, HR-16, TR-707. The HR-16 also to play the EPS. Dr. T's Dr. Drums has many good pre-fab rhythms available and I will be putting them on the EPS 3.5" disk, so I can get to the rhythms on the drum machines and/or sequences. I guess I am not 100% sure on how to do this, but I'm working on it. Some reassigning of the drum parts (ex. C2+Bd.1, etc) are necessary.

I hope that a SLT-?!! is in the making with additional HUMANIZED drum sequences. I especially like Electronic Kits 1 and 2. Question: will it ever be possible to record a

multi-channel sequence from my computer (KCS-128) to the EPS, without needing to go it one channel at a time? The ultimate goal being to have my entire collection of sequences on the EPS disks. And, where are some additional rhythm/seq drum patterns available for my EPS/4X?

Thank you,  
Al Trautman  
Lydia, LA

[Ensoniq's response - Although we are always looking at various demo methods, we are not primarily in the "drum pattern" business, so we can't guarantee anything beyond the current Bonus Beats disk. Actually, all of these sequences were played directly into the EPS sequencer by drummers using drum pads so they are, in effect, humanized.

The EPS sequencer structure does not allow multi-track recording. This function would require completely re-designing the sequencer.]

Dear TH

How about someone out there making a bunch of good and varied pipe organ samples (multi-sampled) for the EPS. And not from synths but from real pipe organs. The woefully few Mirage pipe organ samples just don't pass muster. So, c'mon guys, please, someone with the means and expertise. The pipe organ is, after all, the

king of instruments, and would make a great and valuable addition to the EPS library.

Dave Stamos  
Ontario, Canada

[Ensoniq's response - We have an excellent Pipe Organ sample available in SLT-2. Also, there must be some third party vendors or Hacker readers who have pipe organ samples to trade or sell.]

Dear Hacker,

Heeelp!! I am a professional composer/arranger for radio and television commercials (jingles and film scoring.) I just got my brand-new VFX-SD. The machine is simply fantastic...if only I can get it to work right. I use the VFX-SD as a sequencer and main controller over all my equipment. Before this, I used an ESQ-1. But, after sequencing about four projects on it, (I've had it for barely a month) all sorts of bugs have been crawling out of it. The sequencer keeps hanging and crashing on me and I haven't a clue whether the problem is with the hardware or software (OS 1.2), but I've been experiencing the following problems:

1. When quantizing a track, the "EDIT-ING..." message will flash endlessly leaving you no alternative but to switch the machine off.

2. When you switch the machine on, the first message that appears on the display is supposed to read "CALIBRATING -- DO NOT TOUCH KEYBOARD". Sometimes, after a really wild crash, even after leaving it turned off for a day, switching it on will reveal only a partial message: "CALIBRATING..." and will just hang. Only after switching it on and off repeatedly for about 10 times does it actually switch on.

3. I can't believe Ensoniq still hasn't solved the flickering display problem after all these years and in their latest "flagship" synth no less.

4. Even after assigning MIDI status to a sequence track with the proper MIDI channel assignment, (this is confirmed by the message "MIDI CHAN-X" in the main track page, some VFX internal voices still play along in soft volume and even steals away polyphony from the tracks assigned purely for internal voices.

5. A very, very annoying problem is when you switch on the machine, and discover all your sequences from the last session, including the sequencer OS, just evaporated! This leaves you no recourse but to reload the OS and sometimes even the internal voices and presets! I know the VFX-SD memory is supposed to be non-volatile, like the ESQ's.

Each time the system would crash, I'd do a hard reset (preset button plus top-middle soft button) and reload the internal voices and sequencer OS. But recently that's just about all that I do. It's particularly annoying 'cause I have such a big workload and the



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first big crash occurred in the middle of a really big project that is just too tedious to transport to the ESQ (real time track-by-track transfer). I've switched back to the ESQ for the meantime but it just gets my goat that I've spent so much for this synth and it's just lying there and I can't even work with it. I can assure you, I exercise the utmost care with all equipment - surge suppressors, voltage regulators, dust covers - the works.

My problem is compounded by the fact that there is no authorized Ensoniq service center here in the Philippines (I had a friend buy it for me in the States and sent by air freight.) Though, for what it's worth, I filled up the warranty card and sent it immediately. Somehow I am hoping that it is just a software problem and that they can send me an update disk real quick.

I need your feedback real soon. I'm sending a similar letter straight to Ensoniq but I hope you can publish this to warn other users of the problem.

Desperately,  
Bob Serrano  
Makati, Philippines

*[Ensoniq's response - We're glad you sent in your warranty card as it does allow us to contact you as new information or accessories become available. However, we do not automatically send new software versions to customers. This is handled through our dealer network. Your situation bypasses our normal service network since you bought your unit from a dealer not associated with your area. For obvious reasons, we do not recommend this.*

*The current Operating System for the VFX-SD is 1.37 and we're confident that it would solve all of your problems. There is an Authorized Service Center in the Philippines: Blue Chip Sales, 173 Wilson St., San Juan, Metro Manila, Phillipines. Contact: Carlos Buonavides*

*We are requesting your full address from the Hacker and will try to get him in touch with you by the time you read this letter.*

*Note: We're not sure what you mean by flickering display. The display is scanned in software and it will appear to ripple under certain lighting conditions and at certain angles. This is unavoidable in vacuum fluorescent display technology. We feel, however, that the improvement in viewing angle and contrast under all lighting conditions makes it superior to the more common LCD displays.]*

TH,

Here I am again; the real guinea pig. One of the original buyers of the VFX-SD a unit that indeed, on all accounts, was prematurely released, a machine filled with software bugs. Why a guinea pig? Well, instead of enjoying the unit, most of my time is spent discovering crashes, note sticking, volume problems, etc. saving them to disk and compliantly forwarding them to Joe

Friel at Ensoniq. He and I have worked together though he gets the salary; guinea pigs don't get paid. This is my third letter to TH. None have been published as yet. Why not? Are you trying to procrastinate in exploring this dismal situation. I have seen but one or two pieces in the TH since VFX-SD was released. Well, please do your job - readers need to be informed.

A recent comment made to me by Mr. Friel became the thrust of writing this letter. He said that I was the "only one" who was having "so many problems with the unit." He was almost embarrassed to say it. Now, it doesn't take a psychiatrist to know that the one having the many problems is Ensoniq, not me! Hear that, Joe? I'm the one FINDING the problems not creating, inventing, or exaggerating them. If I am, then why are you sending me VPC105 (as a pacifier) and new ROM chips 1.30 (OS 1.32) before anyone else and thanking me from time to time for my cheap labor. Don't put your dilemma as my "neurotic problems". All I want is a machine that works.

Now, ladies and gentlemen, warm up the car because Ensoniq announces "1.37." I will have this one just as I believe I was on of the first to have 1.30 installed way before it was available to the public. I will be the guinea pig who will experiment and decipher 1.37. This will be my second trip with the unit to Sam Ash in NYC to implant a new ROM chip. I can see my work will be cut out for me. How can you guys at En-



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soniq with so much arrogance deny that so many problems exist and yet ask of your consumers to now make another trip to extricate 1.30 and implant 1.37? And, mind you, there are still customer service reps at Ensoniq who insist that the machine, even at 1.20 was and is stable. Some act astonished when I rattle off the very well known deficiencies like crashes, etc....they pretend they are hearing it for the first time. Joe Friel, talk to your cohorts.

Look, I don't blame anyone in particular and I do hope for the best - but don't make it sound like our problem!

I fully share Stephen J. Munro's feelings and concerns regarding Ensoniq's attitude (Jan, '90) - "...we may not catch certain problems before they get into the hands of customers who may approach the product differently than our testers." How good are your testers? Did they overlook the insidious crashes, the incredibly horrible MIDI implementation problems, the faulty song mode in playing sequences causing note lingering, and omissions? Not esoteric - BASIC FLAWS!!

It must be VERY hard to admit wrong. I guess your reputation is at stake. I have been and continue to be helpful - but I must honestly tell you - I am sick of postage costs, disk costs, sick of transporting the VFX-SD and sick of Ensoniq's arrogance. Also sick of the unexpected with this monster.

To TH - please publish more about the VFX-SD. It is not new, mine has been in my hands since October. Why are you delaying? Let the truth be known. This can only put more pressure on Ensoniq to fix the machine.

Thank you for your time. Hope to see this or parts of this letter in Feb/March issue.

Glenn Losack  
NY, NY

*[TH - VFX-SD articles have been slow in coming (except for Sam Mims's "First Look" in this issue - it was slow in getting printed). This has nothing to do with your sinister innuendo. We'll surely have more to follow. For now, the letters column seems to be addressing more immediate needs. We totally disagree with you about Ensoniq's attitude. No other synth manufacturer that we know of is willing to discuss their problems in a public forum like this one. We hope nobody's naive enough to think this means that the others don't ever have any problems.]*

*Note to readers: This letter was last in a series that straddled last month's cut-off date. Many of the issues raised were answered in last month's column. (And things have been very quiet the last couple of weeks...)]*

*[Ensoniq's response - This letter is a difficult one to respond to. Dr. Losack (as of this writing 2/14/90) has had the new software for a few weeks and his technical*

*problems appear to be solved. So this letter is a "slice of time" that is now passed.*

*We have never walked away from difficult situations in the past and we will not in the future. We accept responsibility for this situation and will stay with it until it is resolved.]*

Dear TH,

On the EPS: Can the OS be rewritten to eliminate the base-channel system of MIDI reception, and replace it with a system where incoming MIDI channels can be assigned for each instrument, like the way outgoing MIDI channels can be assigned? Maybe make MIDI IN/MIDI OUT the same? It would be great if they could be different. I'd even give up the internal sequencer if it were a matter of OS space to have this feature. The sequencer wouldn't be needed with this feature in any case. What do you say, Ensoniq? Third-party developers?

Rick Ledbetter  
Studio City, CA

*[Ensoniq's response - Your suggestion is a good idea and certainly seems to be very useful. Thank you for sharing it with us. It's really not a matter of trading the sequencer for a different MIDI reception scheme. Implementing such a scheme would require re-writing many of the MIDI routines in the EPS Operating System ROMs, a task we simply don't have the resources for at this time.]*

To Hacker,

Thought you might be interested in a bug in VFX software version 2.0 that I found and passed along to Ensoniq (who had not discovered it before). The VFX (at least in MULTI mode) will transmit decrements in MIDI volume (controller 7) but not increments. The effect of this bug is that you can turn a channel's track down in MIDI mode, but you can't turn it back up. Only reinitializing the VFX or sending a MIDI volume increment from another instrument to the MULTI voices will restore the volume. I understand that Ensoniq is working on the fix, but, in the meantime, some of your readers may run into the same problem.

Regards,  
Jim Riggs  
Brentwood, TN

*[Ensoniq's response - The problem you describe is known to us. It occurs, however, only when there is a "MIDI Loop" present. This means that the VFX's MIDI Out is connected to its own MIDI In (usually through an external computer sequencer). We have remedied the problem in version 2.1.]*

Dear TH,

Thanks to John R. Bolles for plugging my SQ-80 sounds in the February issue. Regarding a statement in his letter, he and his friend Steve are correct, MIDI actually was devised as a marketing ploy by the synthesizer manufacturers.

In 1978, Sequential Circuits released the Prophet 5 which could memorize presets, and had a microprocessor which continually scanned the keyboard. The price was \$5000. Soon there were imitators and prices dropped. Many working musicians, conscious of rapid technological developed coupled with rapid depreciation, were scared out of the market. Sequential Circuits devised a plan whereby the information already present in the keyboard and memory circuitry could be represented in a standardized format, allowing machines built by different manufacturers and at different times to "talk" to each other. That way, instead of selling last year's outmoded model, one could buy the newer one (with more oscillators, more voices, different sounds, etc.) and play both at once from the same keyboard, thus expanding one's sound capability even further. Fewer used on the market would mean less depreciation. Nothing would actually be obsolete.

At the time the best microcomputer around was the Apple II, and as an afterthought, it was suggested that a program could be written that would mimic the operation of a multichannel tape machine, thus allowing someone with a number of MIDI compatible keyboards to record several tracks and have a separate keyboard play each of them. Remember that these machines were monolithic, cost several thousand dollars each, and an Apple 2 cost \$2000 itself. The term sequencer at that time referred to an analog device that could repeatedly trigger a synthesizer sixteen times or so in succession. Literally no one foresaw what would happen, but I clearly remember telling my friend John Melcher, who cowrote the first commercially released MIDI sequencer package for Passport Designs that we were sitting on dynamite, and that MIDI would sweep the industry.

There is an error in the article "Formant Shifting," which appeared in your January 1990 issue. Jim Grote discusses the ESQ-1 internal ROM sound Mixed, which I programmed. He erroneously concludes that a technique he discovered for changing the tone of the basic waveform used, Voice 1, was the result of shifting the frequency of a formant in the waveform.

A formant is a band or region of emphasis in the sound of an instrument, centered around a fixed frequency. One creates formants by boosting the tone controls on a mixer, for example. The boost remains constant no matter what note is played. Formants contribute to the tone quality of any given instrument.

Actually, the technique works because Voice 1 is multisampled. One of the most difficult problems with this sound was glossing over the split points. When Jim moves the wave up or down the keyboard in the manner he describes, the timbre changes not because he is shifting the location of a formant frequency, but because he is shifting the split points of the multisamples up and down the keyboard, then compensating by changing the samples rate using a modulator. He thereby ends up with an en-

tirely different sample playing the same note. An effect similar to that of a shifted formant results because there are different formants present in different ranges of the human singing voice, depending on what parts of the body act as resonators to give a full tone in that range, chest, throat, mouth, and "head", or sinus cavities.

Of the other waves he mentions, Piano is also multisampled. Bass is only one sample wave and Jim's technique does appear to shift the timbre, but this is not the result of a formant shift. The Formant waves are also multisampled, but in such a way to simulate a constant frequency format. Thus, using Jim's technique will result in an approximate formant shift. The VFX transwaves were created in a number of ways and thus are an entirely new ball game.

On another matter, Rubber Chicken Software, responding to charges of selling samples by developers as public domain, does an elaborate job of ducking the issue. It doesn't matter how meticulous their methods are of combining through the sample they obtain through numerous and far-flung sources. If they sell sounds by another developer they are guilty of copyright infringement.

After two paragraphs of equivocating, their letter states that they never release anything they "know is outside boundaries." The point is, they are liable even if they do not know! It is not Bob Grey's responsibility to notify them of which sounds are his. If Rubber Chicken does not know the specific individual who sampled the sounds they sell, then they must purchase all the commercially available libraries and cross-check, that is if they genuinely want to remain within legal boundaries. If I find them selling any of my products I will not do them the courtesy of notifying them, as Bob Grey did. I will sue them.

Sincerely,  
Nick Longo  
Cesium Sound

[TH - Thanks for clarifying things regarding the Jim Grote article.]

Dear Hacker:

I am the owner of two new VFX-SDs. I am currently in the process of moving all of my sequences (nearly 200 of them) over from my SQ-80. I have been through this process before when I moved my data from computer to ESQ-1 and again when I went from ESQ-1 (and Mirage disk drive) to SQ-80.

Needless to say, the second data shuffle was much quicker due to the foresight of the thoughtful folks at Ensoniq who thought ahead and made software provisions in the SQ-80 for those who upgraded from ESQ-1.

I was hoping that a similar program would be incorporated into the VFX-SD to allow SQ-80 sequence data to be loaded from disk. When I called Ensoniq about this they said that although the program would be very easy to write, that I was the first and

only person who asked for such a program.

I find it hard to believe that I am the only person who has upgraded from SQ-80 to VFX-SD and faces the prospect of slowly porting over sequences one track at a time (usually while performing nightly) or who plans to do it in the near future. It also seems that it would be a good selling point for Ensoniq to have all of the vast library of third-party sequences available immediately (almost, you'd have to find the right sound for each sequence track) for VFX-SD. As a minor third-party supplier myself (I sequence for three bands aside from my own) this looks like good business sense to me.

If anyone else out there feels the same, please call or write Ensoniq and let them know I'm not the only one.

Sincerely,  
Radel Pedersen  
Eureka Springs, Arkansas

*[Ensoniq's response - The upgrade path from the ESQ-1 to the SQ-80 was simple as the two machines shared a common architecture. The VFX and VFX-SD are based on completely new technology and the sequencer structure is quite different. Although a translation program could be written, we could not justify the amount of operating system space or the resources that would be involved, since it would necessitate removing many other useful functions that benefit all the users of the VFX-SD. The result can be achieved by re-recording the sequence one track at a time so at least there is a path for you, slow as it is.]*

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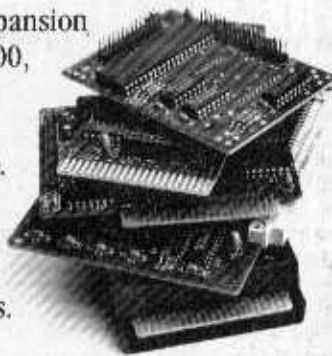


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