

## The Book of SQ — Part XII Setting Phasers on Stun

Clark Salisbury



So far in our twisted journey we've examined the SQ reverbs, chorusing and flanging effects. But there's a lot more going on in SQ effectsland than just these three effect types. Why, there's phase shifting, rotary speaker, distortion and compression that we have yet to deal with. Let's start with phase shifting, shall we?

The Phase Shifter effect in the SQ is designed to emulate the classic "Bi-phase" effect popularized by the venerable Mutron company several years ago, and it's one of my favorite effects. You readers who've been playing electric guitar or Rhodes piano or Clavinet for more than a few years will no doubt remember the phase-shifter's almost vocal-sounding sweeping effect. And for those of you who don't, here's a little demonstration.

Select the ROM program "Dyno Lead." Hit EDIT, then the EFFECTS menu button, and the screen 0 button to move to the top of the effects menu pages. You'll note that this sound uses the "Chorus +

Reverb" effect. Select the effect type, and change it to "Phase Shifter." You should be hearing the effect of the phase shifter now, though it will seem a bit subtle. But we can fix that in no time.

Scroll to the next page (or hit the screen 1 button), and adjust "Phaser Rate" to something a bit faster — perhaps a value of "25" or so. Also, increase "Phaser Depth" to around "60" — you should be starting to hear that classic sound now. Scroll to the next page and you'll come to the "Phaser Center" parameter — it is set to a value of 50. This value places the poles of the phaser half-way between their extremes, yielding maximum effect. Note that changing this value can have the effect of "tuning" the phaser to sweep through higher or lower frequency spectra. For now, leave it set to 50, and move on to the "Feedback" parameter. This control works in a similar fashion to the feedback control on the chorusing or flanging effects — it routes some of the processed signal back into the effect input to process it again, yielding a much thicker processing. You'll want to be careful with this parameter, though — extreme settings can cause the SQ to generate some pretty brutal sine waves, which could damage your ears, your speakers, and your good standing with the board of directors for your condominium association.

But being the devil-may-care synthesist that you are, you'll want to beef up this

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sound by increasing the feedback amount anyway. Try both positive and negative setting for the Feedback parameter, to get a sense of how each colors the sound. The setting that I particularly like is in the negative range — something like “-70” sounds pretty cool to me.

The next parameter is “Stereo Cross-Feedback,” and the caveat about extreme settings applies here too. This parameter controls the amount of output from one channel of the phaser that will be fed into the other for creating a stereo feedback effect — the actual effect of this parameter (at least to my ear) is pretty similar to that of the straight-ahead feedback parameter, so just adjust it to your own liking. I find a setting of “-46” to be pleasing.

The next menu page presents us with the “Phaser Level” and “Input Invert” parameters. “Phaser Level” gives us a certain amount of control over the amount of phaser output that will be present in the final signal — a setting of 99 will yield maximum effect, so let’s leave it set there. After all, we can still control the overall phaser level from the FX1 and FX2 bus located at the top of the effects menu pages.

The “Input Invert” parameter, however, will have a very significant effect on the color of our sound. You see, normally a phaser creates notches in a sound’s frequency spectrum, and these notches are swept up and down through the spectrum to create the phaser’s characteristic sound. But by inverting the input signal, the notches become peaks — a fairly different sounding effect. Try setting the Input Invert parameter to “ON” to get an idea of what this sounds like. See? This stuff is a piece of gateau.

The last parameter in the phaser menu pages is for modulating one of the effect parameters from one of the modulators. By now you should be sufficiently adept with the SQ and its effects to be able to explore this page fully on your own, but I will share one of my favorite uses for this page, and that is to control phaser rate from the modwheel.

To set this up, first assign “Rate” as the parameter to modulate, and modulate it from the “MODWHEEL,” with an amount of “+30” — your display screen should look like this:

```
Modulate  RATE
by MODWHEEL +30
```

This will allow you to use the wheel to control phaser rate. And since you have an easy way to change the phaser rate whenever you want, it might be nice to set the initial rate a bit slower than you might normally. This will give you a nice range of phaser rate values to choose from when you’re performing. So hit the screen 1 button (to move to the correct menu page) and set “Phaser Rate” to a fairly low value — around “18” or so. Now you can use the modwheel to adjust the phaser rate to pretty much whatever seems appropriate at the time. If you want to increase the range of control from the modwheel, simply set “Phaser Rate” lower yet, and increase

the value for modulation amount from +30 to some higher value.

The SQ also contains a dual effect that utilizes phase shifting — the “PHASER + REVERB” algorithm. None of the reverb or phaser parameters differ from anything we’ve discussed so far, so you shouldn’t have any trouble using this effect. And it’s real nice to have access to phase shifting effects without having to give up the reverb — particularly for electric pianos, clavinet, guitars, organs, and a multitude of other sounds available in the SQ (clavinet through a phase shifter is one of my all-time favorite comping sounds).

Another effect that I’d like to take a moment and talk about is the “ROTARY SPKR+VERB” effect. This effect is designed to simulate the sound of the speaker cabinets designed and manufactured by the Leslie Corporation for use with electric organs — most notably of the illustrious Hammond variety.

The Leslie speaker cabinet contains at least a couple of speakers, one of which would actually rotate at a couple of different speeds, creating interesting doppler effects as it rotated toward and away from the listener. The organist using the cabinet would normally have a footswitch which would allow him or her to switch the speaker between slow and fast rotation speeds. But since the speaker rotated mechanically, it would take it a few moments to get up to full speed or to slow down completely once the switch had been hit. All of these idiosyncrasies have been quite nicely integrated into the “ROTARY SPKR+VERB” effect. To check this out, let’s start with the ROM program “Organ 2.”

Select the program and hit the “Edit” and then the “Effects” button. Hit the screen 0 button to move to the top of the effects editing menu, and increment the effects until you reach the “ROTARY SPKR+VERB” effect.

As is usually the case with most of the multi-effects, you can use FX1 and FX2 to control reverb amounts; any voices routed to FX1 will be processed both by the rotary speaker effect and the reverb, while voices routed to FX2 will receive processing by the reverb alone.

Since we’ve already dealt with reverb effects in some depth, I want to skip the second menu page (the one accessed by pressing the screen 1 button) which deals solely with reverb-related parameters. So let’s continue by pressing the screen 2 button to access the first set of parameters that deal with the rotary speaker effect, “Slow Speed,” and “Fast Speed.”

As might seem obvious, here’s where you control the speed of the rotary speaker effect. As with a real Leslie speaker, there are two speeds available — slow and fast. Unlike the real thing, though, you can control the speed for either of these extremes.

*(Continued on page 4)*

## RND (♪♪♪)

### Ensoniq News

No Ensoniq news this month. (There *may* be some EPS O.S. news next month!)

### Hacker News

Make sure to check out Sam Mims' "VFX Clinic" in the June issue of *Keyboard*.

### Third Party News

K. Thomas would like us to announce a one-third reduction in the price of their demo tape of EPS and EPS-16 PLUS samples. The tape demonstrates each of the instruments in the 80-disk library and is available for only \$8. K. Thomas, PO Box 174, Stratford, ONT, Canada N5A-6T1.

### Tested and Approved Hard Drives for the EPSs

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

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

### Drives Reported to Work by Readers

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

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

## CHANGE OF ADDRESS

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

## TRANSONIQ-NET HELP WITH QUESTIONS

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

**ALL ENSONIQ GEAR** — Ensoniq Customer Service. 9:30 am to noon, 1:15 pm to 6:30 pm EST Monday to Friday. 215-647-3930.

**ALL ENSONIQ GEAR** — Electric Factory (Ensoniq's Australia distributor). Business hours — Victoria. (03) 4805988.

**SQ-80 QUESTIONS** — Robert Romano, 607-533-7878. Any ol' time.

**HARD DRIVES & DRIVE SYSTEM** — Rob Feiner, Cinetunes. 914-963-5818. 11 am — 3 pm EST.

**SQ-80 QUESTIONS** — Michael Mortilla, 805-966-7252 weekends and after 5 pm Pacific Time.

**EPS & EPS-16 PLUS QUESTIONS** — Garth Hjelte. Rubber Chicken Software. Pacific Time (WA). Call anytime. If message, 24-hour callback. (206) 467-5668.

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

**ESQ-1 QUESTIONS** — Jim Johnson, (503) 684-0942. 8 am to 5 pm Pacific Time (OR).

**EPS/MIRAGE/ESQ/SQ-80 M.U.G. 24-HOUR HOTLINE** — 212-465-3430. Leave name, number, address. 24-hr Callback.

**SAMPLING & MOVING SAMPLES** — Jack Loesch, (201) 264-3512. Eastern Time (N.J.). Call after 6:00 pm.

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

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

**SD-1, sound programming, sequencing, & MIDI** — Eric Olsen, Pegasus Sounds, (616) 676-0863. Mon, Tues, Thurs, Fri: 4 pm to 9:30 pm Eastern Time. Sat: 12 to 10 pm. (*No calls on Wednesday please!*)

**SQ-1 QUESTIONS** — Pat Finnigan, 317-462-8446. 8:00 am to 10:00 pm EST.

**ESQ-1, MIDI & COMPUTERS** — Joe Slater, (404) 925-7929. Eastern time zone.

## BACK ISSUES

Back issues are \$2.00 each. (Overseas: \$3 each.) Issues 1–9, 11, 13–23, 27, 29, 30, 35–38, and 67–71 are no longer available. Subscriptions will be extended an equal number of issues for any issues ordered that are not available at the time we receive your order. ESQ-1 coverage started with Issue Number 13. SQ-80 coverage started with Number 29, (although most ESQ-1 coverage also applies to the SQ-80). EPS coverage started with Number 30. (But didn't really get going till Number 35.) VFX coverage (which also applies to the SDs) got started in Number 48. The SQs got going in Number 63. Permission has been given to photocopy issues that we no longer have available — check the classifieds for people offering them. A free back issue index is available which contains the tables of content for all issues since Number 43.

## *SQ Phase Shifting (Continued from page 2)*

The default setting of 10 for the slow and 90 for the fast speed is a pretty good approximation of the way a real Leslie works. But if you'd like to change these speeds, do so. Note, though, that any changes you make will not be apparent until you've initiated a controller change. I'll illustrate:

Try setting the value for Slow Speed to 40, and play a few notes. No difference, huh? Now move the modwheel all the way forward and back, and play a few more notes. Notice that the slow speed is now quite a bit faster than it was before. You see, the modwheel is the default controller used to select between slow and fast speed in this effect (although you can easily choose any of a number of other controllers instead), and until you move it to switch to the fast speed, and then back to the slow speed, you won't hear the effect of any changes you make to either the fast or slow speed parameters. Just thought you'd like to know.

At any rate, the functioning of the slow and fast speed settings should be pretty evident, so let's move on to the next page. From here we can control the "rotor" center and depth. The "Center" parameter acts somewhat like the "Center" parameter in the phase shifter effect, in that it can be used to "tune" the rotor to sweep through a higher or lower range of frequencies. And, logically enough, the "Rotor Depth" control allows you to adjust the distance over which the rotor sweeps. A variety of effects can be achieved by varying these two parameters, some of which are pretty subtle, and some of which are not so subtle. The main thing to remember when working with these parameters is that the effect you end up with is going to sound a bit different at each of the two different speeds, so remember to check the sound at both the slow and fast speeds before making any final decision on the settings for any particular effects program.

The last page in the ROTARY SPKR+VERB effect is where you assign a modulator to control the speed change of the rotor. The default setting uses the modwheel as a switch, which seems like a pretty logical way to control this effect. When the modwheel is used as a switch, kicking the wheel forward has the effect of switching the effect from the slow speed to the fast speed. And just as with the real McCoy, it will take the effect a few moments to fully attain its fastest speed. Pulling the modwheel back will switch the effect back from fast to slow speed, again with an authentic lag time.

There are a couple of other modes for controlling how the speed switching will work. For example, if you are using the wheel or CV pedal to control speed and you have SpeedMode set to CONTIN (continuous) the rotor speed will track the modwheel or pedal position. In other words, if you only want the rotor to speed up a little bit, just move the wheel or pedal forward a little way. Of course you can't do that with a real Leslie cabinet, but that's not Leslie's fault. After all, the original is a mechanical device.

The other choice for SpeedMode is TOGGLE. This is the setting you'd probably use if you want to use pressure or a footswitch to switch speeds, as the speed will switch whenever the assigned modulator sends a message that moves from 0 in a positive direction. For example, if you try routing pressure to control the switching between speeds (those of you with pressure-sensitive keyboards) — pressing harder on the keys momentarily will cause the effect to switch from whatever speed it's currently at to the other speed. However, if you try to use pressure as a modulator when the SpeedMode is set to SWITCH you can cause the rotor to switch from slow to fast by pressing harder, but once you release the pressure the rotor will switch back to the slow speed.

Anyway, that'll about wrap it up for this installment. Stay tuned — we'll be doing the last bit on effects next time out. See ya then... ■

*Bio: Clark Salisbury is a partner in the MIDI Connection, a Portland-based consulting firm. He has been actively involved in the composition, performance, and recording of electronic music for over 7 years and is now producing his own pop-oriented compositions. His favorite color is chrome.*

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- *Keyboard Review, Nov '91*

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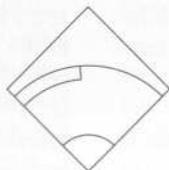
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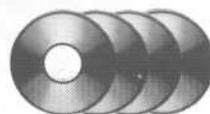


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## Mueller and Mullen — High Style to High Glory

Daniel Mandel

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Tape: Original tape - All songs copyrighted '89, '90, '91.  
 Artist: Dean Mueller.  
 Contact info: 157 Clews St., Pawtucket, RI 02861.

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**Equipment:** Atari ST, Fostex Model 80-Multitrack, Tascam Mixer System MM-20, Microverb (Alesis), ESQ-1, Mirage, SQ-R, EPS, EPS-16, VFX, and Nakamichi RX-202 deck.

In the words of the artist: A) I'd be interested in video soundtrack — I feel my abilities to write in different idioms would make me strong in this field. B) I'd like to do commercials — I'm quick at writing. None of the songs you've heard take more than a day or two to compose and record. I'm not the kind of person that comes back to the same song over and over again. C) I'd like to sell songs or rights, whatever legally is compatible. D) I'd like to do sequencer demo work for Ensoniq E) I'd like to perform as a studio musician on an artist's album — This is what I'd really like to do for the rest of my life!

In the words of the reviewer: This was a fun tape to listen to — bottom line. Diversity is this guy's middle name. Really. He goes from pop to hip-hop to funk to new age to...A consideration for Dean at this point is that if he is going to create a demo tape, and from the material here I can't see a good reason not to, some decisions should be made. If Dean stays inside the mainstream commercial industry they are going to try to categorize him and they won't be able to. No problem. One of his pieces is a brooding and beautiful reworking of *Silent Night*. He says that he considered doing an entire collection of Christmas songs. This is exactly what would be necessary to make his demos industry ready.

Pre-select the categories and remember you only need 3 or 4 songs per demo tape. If you are really looking to be a studio musician, you might try to cater to a specific artist. Say you want to play for Rod Stewart. Try writing a few songs that Rod might really want to sing. If you wanted to go Indie, you could try for a more diverse collection, but keep in mind that even independent producers and studios want to sell their product. Most people who buy an artist's work don't want to have ragtime follow jazz-fusion. The exception here, as with just about everything else, is if you do it well, you can get away with anything!

Dean's sounds were as widely varied as his styles of music. It is interesting though, that within each song, each group of sounds made up a complete band or orchestra that made sense. I didn't hear any bizarre or unnerving or non-traditional combinations here.

I've gotta say something about the sax patches used. And if you've read a few reviews by now, you know they are my pet-

test peeve. Dean plays very well. He's got his chops down. He did play some incredible sax phrases that made me think, YES, IT CAN BE DONE! But the guy let me down in the next phrase and I had to ask myself, why not choose a synth lead patch that allows you the same expression as a sax patch — without tying you into poor imitations of the real thing?

Dean's use of sequences was very transparent. A good job all the way around. The opening piece, *Just Fine*, has a very live feel and sound. This may have been enhanced by the roomy sound of the drums and the way he ended with an elaborate fill. The songwriting here is very good with a strong sense of many different styles. While the hooks aren't as pointed as they might be in the pop vein, they support the song well. Dean's best popular song in this set is *Easy Does It*. He uses his voice at its most powerful, rips through his leads and does all his handy work based on a very listenable chord progression. Where Dean really excels outside of popular music is in his movie-esque instrumentals. *Seven Roads*, Dean writes, "is a song written to practice mood changes."

Dean is a great song writer, a good keyboard player and a passable pop vocalist. One thing though that didn't work for me at all was the Rap, Hip Hop piece. I'm not anti Rap mind you — this just missed the mark. The female vocalist sounded a bit off pitch and I couldn't understand all her words. The Rap section seemed far too calculated, too non-spontaneous. The beat was sing song and slow. It sounded like a parody of a Rap song.

All things considered though I don't understand why Dean isn't already marketing and pushing a collection of his music!

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Tape: *Act of Love*.  
 Artist: Mitchell Mullen.  
 Contact info: Phone: 813 371-3004.

---

**Equipment:** A Fisher boom box and a VFX-sd.

The house lights go down. There is a hush over the audience. In the darkness a few people cough, one woman shuffles her coat and a small child giggles. A moment later the symphony swells as the warm glow of the light spills onto the stage and the dancers' movements begin to tell a story. It is the story of Easter. It is "a visualization of the last day Jesus spent on prison, his journey to Calvary, his crucifixion, burial and glorious resurrection."

The music you hear is being piped into the P.A. system from a synthesizer. All these songs make up a performance called *Act of Love* and were performed and video taped in a large church on Easter evening by two dance troupes.

Mitchell began writing the songs when he purchased the VSD-1000 and the Australian Sound Library disk. "As I loaded the different sounds and tried them out the music just happened."

This is a very grandiose, flowing piece of music that begins with a wash of harp strings and violins. A muted horn begins to carry the melody as the rest of the symphony is introduced. This is interrupted by an echoing drum beat that drives the song into a solemn dead stop where we can hear the hammering of the nails and the sadness of the symphony washes slowly down. Horns and cymbals crash over top of the strings until at last there is a triumphant ringing of bells.

This all happens rather quickly, perhaps a bit too quickly. It would have been better perhaps to perhaps explore each section more. Still it flows very well. ■



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

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

## In Search of Realism

K. Thomas Sounds for EPSs

Bryce Inman

For: EPSs.

Product: EPS sound disks.

Price: Sounds sold individually from \$3 – \$25 (substantial discounts when purchased in sets).

From: Keith B. Thomas, P.O. Box 174, Stratford, ON, Canada N5A 6T1.

Look out, folks — Keith Thomas is at it again. For those of you who missed my first two reviews of Keith's EPS sounds (TH #65 and #72) let me briefly point out that his library of sounds consists mainly of "real" acoustic instruments. To provide as much realism as possible, Keith does quite a bit of multi-sampling. The obvious result of this is that his sounds tend to be quite memory-hungry. The results, however, are quite dramatic. His sounds are the most convincing I've ever heard.

Having mastered the art of producing realistic samples, Keith has gone a step further with his newest samples, giving them an even more convincing effect. Here's a look at his latest developments:

Let's start with a few sounds from Keith's new set of saxophones — 9 sounds in all. **BRIGHT ALTO SAX (1408 blocks)** offers a new variation of an old sampling trick. You're probably familiar with the sampling technique of having two layers for a particular sound where one layer features samples of an instrument playing a note with a hard attack while the second layer contains that same instrument with a soft attack. The layers are programmed so that a soft attack on the keys plays the layer with the soft attack, a hard attack on the keys brings up the hard attack layer and a medium attack on the keys produces a mixture of the two. Keith's alto sax features this same technique except that this sound features three layers: a soft attack, a medium attack and hard attack. As you might expect, this produces a higher level of realism. Pressure adds vibrato and the mod wheel darkens the tone, providing real-time control of the shape of the sound.

**STEREO TENOR SAXES! (1109)** features two separate multi-sampled saxophones — one panned hard left and the other

hard right. This is great for producing sax ensembles. Playing a three-note chord on a single sax sample usually provides less than ideal results and can be a dead giveaway that the sound is sampled. This sound, however, with its samples of two separate saxes with slightly varying tone colors, provides the perfect tool for creating the sound of realistic sax ensembles.

**CAPTURED PERFORMANCE RIFFS and VIBRATO TAILS** are the extras which have been added to **ALTO SAX PLUS (1239 blocks)** to enhance its realism. The riffs are samples of a few jazz riffs which can be played by holding down a single key. Pressing the correct patch select button will cause one of the tails to play when a key is released, providing a nice intimate feel for those slow sections of a song. A legato layer is also provided for those non-tongued passages that need that smooth, easy feel.

At 3950 blocks, Keith went broke when he put together his **MULTI ATTACK VIOLIN**. In developing this sound, Keith started with an excellent multi-sampled violin and then added a velocity-controlled sharp layer that gives this sound a wonderful stroke of realism. The sharp attack zeroes in on the feel of the bow biting into the strings as you play those forceful notes. To finish the sound, Keith has added a few scoops and glissandos as well as a pizzicato layer and a snapped staccato pizzicato layer.

And finally **BRAHMS' ORCHESTRA HITS (1341 blocks)** contains, what else, a number of big, splashy orchestra hits which allow you to develop either major or minor IV-V-I cadences.

As with his previous sounds, Keith has shown a knack for capturing the essence of acoustic instruments that makes it easier to produce realistic sounds on the EPS. His sounds "feel" good when they're being played on the keyboard — you don't go through a lot of contortions and multiple takes to get a natural sound from his samples. I have quite a large library of samples for my EPS, but when I need a sound that's authentic (and I have enough extra memory) I automatically load Keith's sounds into my EPS. ■



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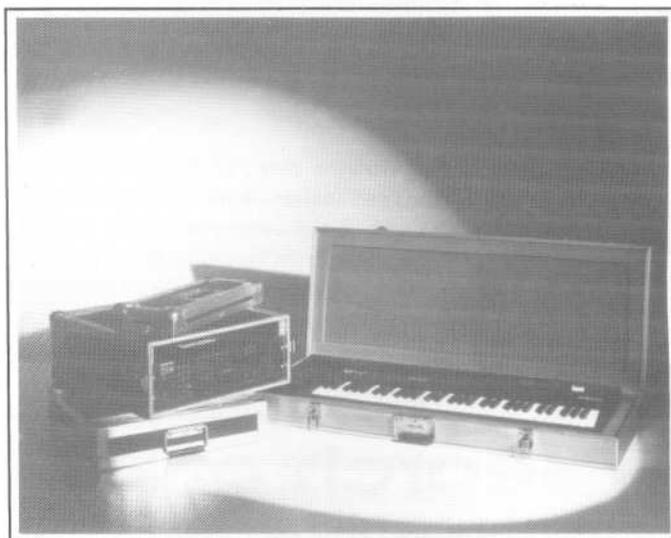
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# Atmospheric, Yet Functional

## The Sound of Pegasus

*Dennie Edwards*

---

For: SD-1/32, VFX-sd, etc.

Product: Volumes 1 and 2.

Price: \$25 for both.

From: Pegasus Sounds, 6050 Adaway CT, Grand Rapids, MI 49546.

Phone: 616-676-0863.

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Why do people need to buy sounds? How about this? It's the '90s, after all, and we do not have time to do things like read our manuals or attempt creativity. You buy that? Neither do I. The real reason that we buy sounds is that of curiosity. We know that if we had to, we could make them ourselves, but we just need to see what others are doing. I look at other people's sounds to do basically three things. First, can they be used right out of the ol' box? That means that these sounds are useful for the gig tonight with little or no tweaking. Second, do they inspire my creative side? Does the sound start my creative juices flowing? And lastly, do these sounds push the machine to its sonic limit, effects, patch selects, and modulator-wise? Let's take a look at the two volumes of patches by Pegasus Sounds and see how they stack up.

### But First

Here's how I check out new sounds. First, I like to go through every sound very quickly, taking note of the ones that catch my attention early. Next, I start all over from the beginning, this time taking time with each sound and looking for the features of each program. For example, I play the sound and see how velocity, patch selects, mod and pitch wheels, and even the timbre control effect each aspect of the sound (attack, decay, sustain, release, effects, timbre, etc.). Then, I look at the little things, like are there any demos to help display the sounds? With this in mind, it's time to tear into the two sound banks by Pegasus Sounds.

There are many sounds that are useful right out of the box, some great ones that can be used in different types of music. There are some cool pianos, Honky-Tonk, Hard-Epno, Fun-Piano (with patch selects) are just a few. And there are a couple of terrific organs on both volumes — St Andrews, Hammond B-3, Blues Organ, Rock Organ, and Baldwin. Eric Olsen, the chief programming officer of Pegasus, has programmed some excellent bass and analog sounds as well — Mega Bass, Kick Bass, Kick Buzz (both of these are pretty original to me), Pluck Bass, Hohner Clav, Juno 60, Oberheim, and Hey...Jump (nuff said 'bout this sound). Most of the sounds in the two volumes are pretty useful bread-and-butter wise.

Within the two volumes of sounds exist some good examples of patch select programming. These volumes use patch selects better than most but not as much as others. I wish more sound

developers would concentrate on patch selects. The Ensoniq SD-1 and EPSs have a corner on the market in this flexible parameter. Eric pays attention to patch selects for the most part. Sounds like Fun Piano, Fair N Sqar, and Paula-Solo are a few examples.

Some programs that use the mod wheel for things other than vibrato are Orch-Grow, Ramp Strings, The Brass, Pulsating and Modwhl/Pres. I do not believe that there are any sounds that utilize the data entry/timbre control, but then other programmers' sounds really don't either (another bummer).

Also squeezed into these two banks of 120 sounds are those sounds that make us stop what we are doing and pull up a chair and start writing. Most of the ones in these volumes are kind of new-ageish, airish. These are sounds that evoke emotions and set certain moods. Included in this group are Orch Grow, Ramp Strings, Mr. Fairlite, Movin Along, Omega, Pulsation, and Factory. And while some may think that these are only useful for movies and new age, I myself am of the opinion that they can be nicely incorporated into other palettes. These sounds also make use of transwave/all wave programming techniques, an often overlooked capability.

These sounds are very workable in terms of complexity and texture. The user gets to tweak and layer them to their own specifications. Most programs are pretty conservative in the effects department which makes them perfect for band and gig use. After all, you have to give the soundman something to do with his new DP/4. The few drum programs are adequate, however they do not light the world on fire.

Basically I see this disk being used as a performance disk and not for spatial experimental voodoo things. Which brings up the fact that there are no presets with the sound banks. How many owners of SD-1s and VFXs use them anyway? We should. Other companies' keyboards use nothing but combies, multies, and performances to make their instruments sound fat. Why don't we SDer's do the same? We seem to be satisfied with the programs as they are (they do sound fat by themselves anyway). After all, with 21 and 32 voice polyphony, one would think that sound programmers and users would push their machines to the limit. If we don't use the features that we demand in keyboards, manufacturers will start playing it safe and not listen so attentively.

The three demos that come with the volumes are decent sequences, however they barely show off the sounds which is what I suppose that demos on sound disks are for. Preferably there should be several short sequences using the sounds as the programmer had in mind when he designed them. This helps sell sounds. It also helps consumers make sound buying decisions. It is kind of like taking the sounds for a test drive

with someone showing you how to drive the machine.

So if you're looking for some new sounds and you need some ideas, then go ahead and give Eric a call. These two banks offer programs that are great for pop and top forty as well as other styles. The volumes are weak on the drums, acoustic pianos, acoustic instrument areas, but very strong with gig oriented electric pianos, beds, great analog bass, brass, strings etc. And there are some pretty neat atmospheric and specialty sounds as well. For the money, this collection of patches really can't be beat. For the price of four tickets to the movies you

can get some cool new sounds, some a bit conservative and raw in the effects department, but cool nevertheless. After all, when was the last time ya had too many sounds to choose from? ■

*Bio: Dennie Edwards is the Asst. Manager/Keyboard salesman for Vince's Backstage Music in Lafayette, La. Dennie also does MIDI consulting and sound programming for local jingles and other productions. His favorite colors are blue and florescent pink. It is rumored that Dennie is the son of the Shell Answer Man.*

## International Killer at Large!

Ensoniq's ISC-1 for SQs

Jeff Rhoads

---

For: All SQs.

Product: ISC-1 (International Sound Collection 1).

Price: \$99.

From: Ensoniq Corp., 155 Great Valley Parkway, Malvern, PA 19355 or contact your local Ensoniq dealer.

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I was almost halfway through the first version of this review of Ensoniq's ISC-1 when I decided to rewrite it. Sure, there were plenty of juicy descriptions and flowing metaphors and a "you're really gonna like this card" slant, but something wasn't right. Was I nit-picking a bit? Too critical for the critique? Sometimes reviewers find themselves searching for "problems" that aren't really, in an attempt not to appear biased. It's often hard, then, to say what we really mean. Well, not this time...

The ISC-1 is a killer and is, without a doubt, the best soundcard for the SQ's I've heard to date. If you need sounds for your SQ (and can spare the \$99 or so) fly, don't drive, to the music vendor of your choice and pick one up.

Why does the ISC-1 sound so good? In large part because the programmers were not just content to "cover the bases." (Although cover them they did.) Almost all the entries on the ISC-1, whether standard sounds or not, seem to shine with a polish that only comes from having pride in each patch.

There are two things to keep in mind while test-flying the ISC-1 (and you owe it at least a test-flight) One, the "I" in ISC-1 stands for International. This does not mean you're facing a set of World Patches, rather that the programmers themselves are internationally situated. Arnd Kaiser of Germany, Noritaka Ubukata and Yashuhiko Fukuda of Japan and Roger Mason representing Australia are the designers responsible for the ISC-1. Two, Arnd Kaiser has done the work of many. He's "transported" the International Collection for the VFX to SQ Land.

Now this alone may, in part, help answer the question, "Jeff,

where do good sounds come from?" We'll address that burning issue later. For now, though, try listening to the ISC-1 as if all the patches were created just for the SQs. There are so many standouts on the ISC-1, that we'll only be able to touch on a few or so specific sounds.

The ISC-1 abounds with pads, new age, and soundtrack voices. Even the most basic are punctuated with clarity and charm. U-NEED-IT, LOW STRINGS, PAST PAD and ENSEMBLE '76 accomplish their task with predictable waveforms and technique: the result is simple and straightforward. We're left with a set of sounds that we'll use. Those "little" things like pitch envelopes, reverb levels and glide times are programmed with great care. One of the most striking patches in this group is OPEN SKY. It begins with an eerie, large bell (Tubular Loop) that fades into slow, octave strings. This combination is surprisingly good and is as inviting as it is foreboding.

The vocal sounds are above par. (And I'm no big fan.) CHORALE is breathy, open and full. This choir should add the "angelic" touch without being obnoxious. There are two excellent offerings in the woodwind arena; SOPRANO SAX and LATENIGHT SAX. The little-seen SOPRANO SAX is a very good approximation, provided you stay in the correct range. The instrument's base tone comes from a combination of woodwind and saxophone waves. This tone is then supplemented by the clav variation wave. It would seem that this clav wave provides the added brightness needed to thin the soprano out some, thus giving it an edge and separating the sound from that of a tenor or alto horn. (You may notice an over-use of reverb here. This happens a lot on this card. It's a minor glitch, but where pads and such seem fine, some solo and brassy patches seem over-laden with the stuff. It should be noted that this is a very Euro or International trend so it would follow suit for this card.) Where SOPRANO SAX is somewhat flighty and lyrical, LATENITE SAX makes no apologies for being gutsy. It's loud and raunchy and should fare well in Rock & Roll solo and backup work.

The solo and poly-synth sounds on the ISC-1 are great. Patches like ODYSSEY and PRO LEAD 1 faithfully evoke the Moogs and Arps of old. PRO LEAD 1 like many of the synth sounds on the ISC uses the Mono or Glide mode. Not only does this enable you to do trill and speed tricks while holding one note but it also allows for wider tonal control. Play one note softly and you'll open the filter only so far. Hold this note and any other notes played will sound with that muted quality. Strike the note harder and hold, the others follow. This may sound like a simple concept but it effectively shows us many synths in one patch.

Drum fans should be able to unite with this card. Not only are many of the kits ambient and solid (ROOM SET, WEIRDO SET, LATIN SET, etc.) but they only sound toward the bottom of the keyboard. Know what this means? It means that these kits are mapped to the Standard Drum Map. Now other drum units can address ISC drum sounds and will know what's going on! You can sequence using "alternate" boxes and sequencers with relative ease. (Check the Drum Map for each unit, though.) Why didn't somebody do this sooner?

Most of the rest of the ideas and sounds on the ISC-1 are consistently good and entertaining; the basses are "thumpily" alive

and full, brasses — punchy and bright etc. The keyboards don't come across quite so well; the organs are a bit weak and the pianos and clavs don't quite reach full maturity but that's compared to the ISC-1 as a whole, which is a tough act to live up to.

So, getting back to the original question, where do good sounds (sometimes) come from? Well, sometimes they come from the recent past. You remember, when every patch seemed to matter a little more. When making use of the technology we had was more important than just copying a few hip or trendy sounds. When the exploration of a new instrument meant breaking new ground. The VFX isn't all that old, even by synth standards, but it was released on a cusp: the cusp between good separate synthesizers with their own rules and personalities and the Great Keyboard Wars. So it may be no small wonder that these sounds work so well for an SQ.

Well, now I've come clean and told the truth as I see it. (Hmmm.) No holding back or throwing out bad knocks for nothing. I'll sleep better. (Someday.) The ISC-1 is a fantastic addition to the SQ sound collection. Next up..... the SC-5 for SQs. ■

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## Tutorial Sounds

### Ensoniq's VSD-1004

*Jeffrey P. Fisher*

---

For: SDs, VFX-sd

Product: VSD-1004 — 2 banks of sound programs — 20 presets

Price: \$19.95

From Ensoniq Corp., 155 Great Valley Parkway, Malvern, PA 19355 or contact your local Ensoniq dealer.

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Reviewers are far too often taken far too seriously (by both readers and themselves). The reviewer's response to a product is based on interpretation of many factors — comparable market offerings being most important — but including also, to some degree, the reviewer's particular state of mind.

Look at the Fat Guy and the Bald One — the fate of a film can rest on the direction of a thumb. It's more useful to use reviews as guidelines — if the reviewer has a track record you've concurred with in the past, you go with it. If you've disagreed fervently with his past observations, that's useful information too.

#### That said — On With the Show

Time to examine the VSD-1004 disk — the latest in Ensoniq's line of sound program support. Point one is that there're sequences included here! That's terrific. Sounds alone do not on-going support make. Some of us need real, honest to good-

ness help with sound design. They have done a great service by providing not just a few token sequences, BUT A SHORT SEQUENCE THAT GOES WITH EACH AND EVERY SOUND — 120 IN ALL!

I, for one, am grateful, thankful, and very pleased. Mike Ford (who created the sequences) has done a fine job at showcasing these sounds. Hearing the sequences is an eye-opening, educational experience.

Helpful Tip. Don't go immediately to the sequences. Start doodling around with the sounds first and then compare your findings with what the programmer/sequencer intended. If you are really stuck on a sound, turn to the sequence and get some guidance. You'll turn many a "huh?" into "Ah, I get it!"

Once again, many of the sound programs, programmed by Erick Hailstone of past Hacker fame, are not 100% compatible with the VFX-sd. Thankfully though, many of these patches play fine in the default patch select 00 mode. The programmer has put most variations that use \*UNKNOWN\* waveforms in the XX, X0, 0X patch selects. Simply go through and disable the patch selects that use the \*UNKNOWN\* waves and work with what is left over.

However, there are still a few (mostly string patches that need the solo violin wave in the SD) that don't work at all. Oh well. But there is a remedy, somewhat radical I suppose. I for one am sending my VFX-sd in for upgrading — I'm gonna treat it like a new keyboard.

### But What Does VSD-1004 Sound Like?

It's difficult to describe sounds in a review, so how about some generalities? Programs in the 1004 A/B are an eclectic mix — lots of modern electric pianos, analog pads and power, some out-there somewhere, some blase, a few very neat wavesequences that produce some moving, flowing, and rhythmic patches, and a few — but very few — standard fare. A nice touch on many of these patches is the creative use of the FLANGE+DLY+REV effects.

### 1004-A Synth and Specialty sounds:

KINGS-LOGIC mixes an oboe with a pleasing and soft pad that swells up underneath. MIDNIGHT, with its calm pad qualities and percussive wave sequence in the bass create a modern, ambient sound. This one really sets a mood. I thought MARAKESH-2\* with its delays and almost sitar-like resonance was a unique patch.

WET-WAVES is a HUGE, buzzy analog patch. I found myself playing David Hentschel's synth lines from Elton John's *Funeral for a Friend* opening. This patch takes you back to the ARP/MOOG days of old.

I was disappointed that a few of the patches sounded so similar. TODAY and BIG-WAVE are hard to tell apart — tinkling tines, steely pad, and lots of flange and delay. And some of the eastern soundcliches take up too much space and are very, very much alike.

### 1004-B Synth and Acoustic sounds:

KEYSMATE\* is a nice tinkling electric, almost toy piano sound with a swelling sympathetic resonance. Fun to play with the sustain pedal held down to create a chordal wash. ALIEN-DREAM is an electric wavesequence and bizarre kind of thing with an odd texture.

There are lots of wavesequences here: RHYTHMWAVES, INTROSPECTS, and TOUCH-RAIN\* which I found more powerful when you include the \*UNKNOWN\* waveform. Strike the keys hard and release for a different kind of hit. TINKLEE-LOG is a warm analog patch with a hard-edged, almost airy quality.

I didn't find too many outstanding patches in the 'B' bank but there is some useful material here for tweaking or doubling with other patches in a preset.

And I really can't overstate the value of the included sequen-

ces. They make it easier to understand the more esoteric patches. This is a simple addition that alone makes the disk a good buy. It's not for the club date crowd, definitely more for sound designers, film and video scoring dates, and for educational fun — you can really learn a lot by studying other people's sound programs. The sequences just sweeten the deal.

Two thumbs up, one thumb sideways. And I'm neither fat nor bald (yet)!

Special thanks to Rob Kole at Soundpost in LaGrange, IL for providing a review copy of the VSD-1004 disk! ■

*Bio: Jeffrey P. Fisher is a composer and sound designer for industrials, commercials, and film.*

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## Sam Mims

John Bolles

Whenever Todd Rundgren, Hall and Oates, Patti LaBelle, and other famous artists from Philadelphia come to the area to perform, the ads always hail them as *Philadelphia's VERY OWN Whoever ...* The artists themselves probably despise that kind of thing, but the fans eat it up. One of my favorite singer/songwriter/cult figures went to Upper Darby High School, and I can see his choir picture in my brother-in-law's yearbook; it's a big kick for me. So, at the risk of offending the artist, I will go out on a limb here and announce that the focus of our *Hacker Glitz* column this month is *TRANSONIQ HACKER'S VERY OWN ... SAM MIMS!*

Sam is legendary in *Hacker* circles as a member of Transoniq Net, primary *Hackerpatch* overseer, article contributor, sound vendor, and all-around Ensoniq hawk. You gotta figure that anyone with that much time on his hands must be a professional musician! And, you would be figuring right. Sam Mims is a studio and live performance musician based in California who also runs the sound development enterprise, Syntaur Productions, and co-manages a music production company, Mulholland Music. What brings Sam to the *Hacker Glitz* feature is his association with two up-and-coming west coast pop/jazz musicians, saxophone player Richard Elliot and guitarist Richard Smith.

Sam is a full-time member of Elliot's band and played on Elliot's latest recorded effort, *On the Town*. Through his association with Elliot, Sam became involved with Elliot's friend Smith, and subsequently contributed to his most recent album, *Bella Firenze*.

*On the Town*, is Elliot's sixth album, and his first for Manhattan Records, a division of Capitol. His first five solo outings, originally recorded on Enigma Records, have been re-released by Manhattan. Elliot's background includes gigs with the Pointer Sisters, Natalie Cole, the Temptations, Smokey Robinson, and Rickey Lee Jones. He did three albums with the fusion group, Kittyhawk, and played with the Yellowjackets. For five years, he was a member of the legendary Tower of Power horn section, but chose to forsake this relatively secure situation to go get his solo career. *On the Town* takes a decidedly safe approach, because, as Elliot explained in one interview, *I think people, musicians, are afraid to say they want their music to be commercially accessible. I like it when my music is accepted by larger and larger groups of people. When I know people like what I'm playing, it motivates me more.* Consequently, as a composer, Elliot feels his style is leaning toward simpler, more memorable melodies in which *each note means something, as opposed to the exercise of seeing how many notes you can fit into a song.* Some might call this selling out (or at least being market-savvy) but, as Elliot said in another interview, *If my*



*first love was playing straight-ahead jazz or mainstream jazz, I don't think there's any way I could ever force myself to do commercialized music. It just so happens that what I enjoy doing tends to be, at least at this point, fairly commercially accessible.*

*On the Town* contains 12 cuts, ranging from the mellow *By My Side* to the fiery *In Your Face* and high-energy *Stiletto Heels*. All of the album's tunes were composed while the band was on the road, leading Elliot to call it *traveling music*. Songs were inspired by relationships, various parts of the countryside, and Elliot's move from the West Coast to Florida. *I moved to Florida early in 1990 and songs just started pouring out of me,* states Elliot's bio. *I wrote 17 tunes in the first three months.* Throughout the album, Elliot's execution is flawless and his tone full-bodied. The production is smooth and slick, very much the kind of sound many people want today. Richard Smith plays guitar, and provides some of the album's high points by way of solos, as well as some very fine rhythm work. There is also a *live-in-the-studio* rendition of *Somewhere Over the Rainbow*, performed by Elliot and Sam. This has been a very effective part of the live performances, and the recorded version had my secretary humming along in no time. My only

complaint with this album is that I often got the feeling Elliot was holding back — apparently for the reasons explained above — and I was only getting a glimpse of his talents. When he finally cuts loose, as on *In Your Face* and, to a lesser extent, *Breezer*, it becomes patently obvious that this is one hot, talented sax player. My guess is that his live performances are much more dynamic. Overall, a slightly one-dimensional recording, but generally very good listening.

Originally from Eugene, Oregon, Richard Smith migrated to Los Angeles in the mid-1980's to pursue a master's degree in Guitar Performance from the University of Southern California. Upon graduation, he was asked to join the faculty as Professor of Music, a position he still holds. The music industry quickly recognized him as an artist to watch when his debut release, *Inglewood*, was nominated in Japan for the honor of *Record of the Year, 1987*, and hailed as one of Japan's *100 Best Records of the Decade*. His early initiation into Japan's *Who's Who in Jazz* was followed by the American release of *Rockin' the Boat*, which shot to Top-5 standing in the Gavin and MAC Reports, as well as Radio & Records. The Richard Smith Unit was named *R & R's Best New Group of the Year, 1990*.

One writer reviewing a Richard Smith Unit concert stated that, if you closed your eyes during the first set, you'd swear you were listening to Jimi Hendrix, and, during the second set, George Benson. While the choice of guitarists to use as stylistic comparisons may not have been the ones I'd have chosen, the sentiment that Smith can handle everything from hard-edged fusion to clean, jazz-style riffing is well-founded. This is not to say, however, that Smith is merely a master of pop/jazz du jour clichés; Smith's playing is constantly fresh and inventive, not the least bit trite or repetitive, and extremely well-executed. Smith seems to be one of those rare guitarists who manages to capture both the *feel* and the technical aspects of guitar playing. The album *Bella Firenze*, to which Sam contributes, also showcases Smith's talents as composer and producer. Standout cuts include *The Fighting Ducks* (which features one of the coolest, most inventive themes I have heard in a long time), and the soulful vocal ballad, *You Could Break My Heart*, spotlighting vocalist/composer Robin Wiley (her publishing company is called *Chick Singer Music* — I love it). Sam provides primary and supplementary keyboards, sampling, sequencing, and sampled string bass on this album. In fact, two songs, *The Fighting Ducks* and *Couch Surfin'*, feature Elliot's section, including the extraordinary bassist Naoki Yanai. *Bella Firenze* is a dynamic recording by an extremely gifted guitarist. The pleasant sound and inventiveness of his compositions belie their complexity. Challenging music that is a delight to listen to — a rare combination.

Not content to leave well enough alone, I called Sam and asked him a few questions.

**JB:** How long have you been playing in Richard Elliot's band?

**SM:** Since June of 1990. I joined the band about a week before the release of the prior album, *What's Inside*.

**JB:** How did you get hooked up with Elliot?

**SM:** I first moved to Los Angeles in 1987. The band I was in at that time was managed by someone who is now one of Richard's current managers. So we kept in touch over the years, and he was the one who first told me about Richard's need for a keyboard player. I talked to Richard and decided to audition. Richard lives in Florida, and his band and I live in California, so I got together with the band, and they taped the audition. They Fed-Ex'ed the tape to Richard and pretty soon I got a call from him saying, basically, *See you in Atlanta in 6 days*. So the first time I ever actually played with Richard Elliot was at that first performance. There was no rehearsal before that gig, and there never has been a rehearsal. I jumped right in and did a five-week tour and that's how it started.

**JB:** I understand that all the songs from *On the Town* were written while the band was on the road. At what point did you decide to go into the studio and record?

**SM:** This band works continuously. The band is not like an organization that goes in and records an album, then tours to promote the album. We did over 140 shows last year. One tour ended up in Florida, and Richard had built a 24-track studio in his house. So we did most of the work there.

**JB:** Did the band's heavy touring ethic develop your cohesiveness and prepare you for the recording project? Were all the bugs pretty much worked out by the time you went into the studio?

**SM:** We had a pretty easy go of it. We used some sequencing, but we did it in such a way as to try to maintain a live feel. A lot of times I would program a very basic drum track or groove at home, to use as a guide to play by. Then I would record my keyboard part to the drum part. Once I had any bugs worked out of my keyboard part, I would send the sequence to the drummer, and he would start to work on his part. He played triggered samples and recorded his parts live into the sequencer. Then we would bring the sequences and our gear into the studio and play back everything there, and that would serve as the basis for the song. Then there was *Somewhere Over the Rainbow*, which was Richard and I sitting in the studio playing.

**JB:** On Elliot's album, you played keyboards on 7 cuts, but were the sole keyboardist on only two, the other keyboardist being Elliot. Was this simply a pragmatic decision to facilitate the recording process?

**SM:** Most of Richard's keyboard parts were sweetening things over the main parts that I had laid down. On some of the tunes, Richard would be at home in his studio, and in the course of — or as a tool for — writing a song, he would often sequence a keyboard part. A lot of times what he did was essentially what he wanted, so he just kept it.

**JB:** There are a couple of cameo piano solos by Dan Siegel on the album. Do you take Siegel's solo spots in performance?

**SM:** Several of the arrangements got switched around for performance. And we don't perform *Along the Way*, one of the tunes that Dan Siegel soloed on. In performance, there are solo

spots for everyone in the band. Most of the songs I solo on are from the previous albums.

**JB:** My favorite song on the Elliot album is *In Your Face*, because he finally cuts loose. I hear some breathy, spacey sounds in there that have to be VFX — is that right?

**SM:** That's right. That is a patch I did for the VFX. It's actually a layer, but mostly consists of *Space Pad*, which I did. I was going for that airy pad kind of sound, with a bubbly M-1 type sound mixed in. I designed that sound just for that song. *In Your Face* was one of those songs which we just figured wouldn't get much airplay, but we were going to do it anyway.

**JB:** On to the Smith album: You are credited with sequencing, sampling, additional keyboards ... Were you basically called in for sweetening?

**SM:** Curtis Brengle has worked as keyboard player with Richard Smith for a long time and was the main keyboard player on that album. He kind of oversaw all the MIDI details. There were times, though, when Richard did not always feel that a certain sound was the best for the job, so he called me in predominantly to enhance the sounds. It was basically my sounds and Curtis's fingers. So, yeah, sweetening.

**JB:** And yet, Elliot's whole section played on two tunes.

**SM:** Richard Smith usually records using a lot of hired players, and he wanted to get a *live band* feel on a couple tunes. So that was *The Fighting Ducks* and *Couch Surfing*. *The Fighting Ducks* was kind of like *In Your Face*, in that we did not anticipate it would get much airplay. It is getting some, though, and Richard is trying to get the football team at the University of Oregon — his alma mater — to use it as their theme. I think they are playing it on the college radio station there.

**JB:** You also played on *Chasing the Blue Moon*. I noticed there were vocal-ish textures rounding out the nylon-stringed guitar chord voicings nicely. Was that you?

**SM:** Yep. *Chasing the Blue Moon* was one of those situations where the record company called and said they needed another song for the album. The Elliot band was on the road, with Smith playing guitar, and Smith, Craig (Yamek, drummer with Elliot's band) and I literally did that track in hotel rooms in Salt Lake City and Fresno. We sequenced the parts and recorded them the day we got home from touring.

**JB:** *You Could Break My Heart* really grew on me. There are no album credits for keyboards on that song, but I hear some pitch modulation effects and funny little noises going on. Were there keyboards on that song?

**SM:** Probably. That was a situation where Richard was up against his deadline. The singer brought in her sequence of the song, and that was used as the basis for the track. Other things may have been mixed down or mixed out or whatever, but there are probably keyboards in there from the original sequence. I did not actually contribute anything to that song, but I was

there when they were trying to get that all together.

**JB:** Obviously, you were a sideman on these albums, so it's not as though they are Ensoniq showcases. But, in general, does the Ensoniq sound permeate this music?

**SM:** The Ensoniq sound is predominant on both these albums. I would say Ensoniq equipment accounts for about 90% of my sound. My performance rig consists of a VFX and an SD-1, then a rack with a Proteus, Matrix 1000, and a Yamaha piano module. All the rack gear is just used for layers, though, so the Ensoniq equipment really is predominant. I also used the EPS-16+ on the records; I did a lot of sounds with that.

**JB:** Are the players you work with and other people you meet favorably impressed with the capabilities of Ensoniq equipment?

**SM:** I always get comments that people are impressed with the sounds I am producing, and I always attribute that to the equipment. I program most of what I use, unless a factory sound has exactly what I'm after. I'll program from scratch, but I'll also modify existing patches, anything from minor tweaks to major overhauls. I like Ensoniq equipment because it is so programmable. I mean, just about any sound I can dream up in my head I can produce on an Ensoniq instrument.

**JB:** Well, the songs I liked the best turned out to be the airplay turkeys. But I have to say, the songs you had a part in were the ones that grabbed me the most. What else do you see yourself doing? Do you think you'll get more involved with arranging for the band?

**SM:** Well, the ultimate call is Richard Elliot's, but mostly the musicians all come up with their own parts. One thing Richard and I talked about is writing together, but we haven't done that yet. *On the Town* was #1 for three weeks in a row in *R & R Magazine*, and has been #3 in the *Billboard* jazz charts for six weeks. So the album's doing well, and we'll be starting on a new album within the next month. Craig Yamek and I have started our own production company, and we are doing some stuff with Tiffany now. We're doing preproduction for her next album, and we're cutting two songs that I co-wrote.

**JB:** It certainly sounds like you'll be busy. I hope everything continues to go well for you. I'm sure all the Hackers will be rooting for you. ■

#### CURRENT ENSONIQ O.S.

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ESQ-M	1.2	SD-1	3.00
SQ-80	1.8		

# YIKES! They're STILL Out There, Folks...

## Treehouse Sounds Mirage Disks

Pat Finnigan

Product: Treehouse Sounds Mirage Samples.

For: Mirage, EPS Classic, 16+, racks.

Price: \$6/disk, demo tape \$3 (refundable on first purchase).

From: Treehouse Sounds, P.O. Box 18563, Boulder CO 80308-8563, (303) 440-8208.

This month we examine an interesting group of sound effects from out Rocky Mountain way. There *are* people who still use our old friend the Mirage. Matter of fact there are still people making very good music out there in the real world with them. Among these loyal and patient loopers comes Greg Davis of Treehouse Sound with this offering of sound effects. As explained in the documentation and order form, it seems you always need just one more sound module to fatten up a thin mix, or wash in some kinda sound effects (surf, seagulls, nu-age trivia) just to get the atmo/eco/sphere thing going. Greg's got five disks here to keep that DMS-8 in your rack and outta the classifieds...

These disks contain between 8-12 samples, some complete with different waves for different programs (L1, U1, parameter 25 off, remember?). All are exceptionally clean, leading me to believe these samples are Alchemy ports of samples from some other form of digital domain, because the Mirage ain't exactly a full-bandwidth sampler. Try Disk 4's "Grand Daddy" grandfather clock chime and you'll discover there's still a lotta life in the old Malvern box yet. The breathy sounds weren't exactly my cup of tea (Listerine? Scope?), but they're well done and have a coupla variations in the programs. "Wind Chimes" really have some top end to them, pretty unusual for the Mirage, but are quite convincing. "Bees" should be "Swarm," "Stream" is the M1 babbling brook, and "Zipper," well, Arnold Schwarzenegger comes to mind. "Wind" and "Surf" are classical examples of relaxation management techniques, "Whistle Wind" is a pretty frosty breeze, and the "Cricket" and "Crique" are about as outdoors as I've heard a Mirage get. Surprising is the use of different programs for detuning, different filter settings, new wavesamples. Greg has done his MASOS homework on these disks. Of course there's an obligatory helicopter and creaking door, laser blasts and door knocks. "Pull Start," starting your lawnmower, would've been more convincing if Greg could've gotten it started; I couldn't. Future disk, maybe? The real whopper is "Fire," and this isn't any crackling weenie roast campfire we're talking here. Asbestos and Nomex clothing should be worn when you use this disk.

Among the losers of this collection were "Digi-Keys 1 & 2"; haven't we had enough FM yet? "Rich Strings" might have been rich when the Oberheim 8-voice was \$8995 (with programmer); it's not even a Polysix now. I'm not gonna rag on the bogus sounds; when was the last time YOU got a perfect loop on a Mirage? As Greg admits, you wanna add some kinda

digital reverb box to the Mirage so it can compete with more current keyboards having built-in effects anyway, so rather than tell you he's got 20k bandwidth samples all digitally recorded and massaged, he's right out front with his stance. This takes a certain amount of bravery to admit. I think he's to be commended for it...

I next fired up one of my EPS Classics and did the "Load Mirage Disk" timewarp, and auditioned the samples again. This time I was able to do the "Bowtie crossfade/Bidirectional X-fade" trip on the "stinkers," and they cleaned up amazingly well. The "Clock Chime" and "Industry" took on a larger character, but outside of the inherent looping abilities of the EPS, the effect samples sounded just as convincing as they did on the Mirage, albeit brighter on the EPS. Good stuff to be found here. I'll bet Treehouse Sound has more of these kinds of samples available than they're admitting...

In summary, the price is certainly right (\$6 a disk), and if you're faint of heart, on a really limited budget, or just downright cheap, send off for the cassette. It's not only representative of the sounds, but it's the way all sounds should be demonstrated, almost tutorial in nature. Greg explains which sounds are Lower 1 or Upper 3; really great job explaining sounds and stuff without actually condescending over you. These prices are more stipend than cost, so I kinda relate to this guy. Disk medium is 3M DSDD, labels are laser printed, probably more than we deserve for just \$6. But make up your own mind, you'll wanna trust your own judgment (especially "Fire!") so pop for a tape. It was kinda sentimental firing up my old metal-cased, yellow-striped, retro-sampler to audition these disks. It's even more refreshing to find new grist for the old mill...

Now, Greg, about that soon-to-be-released "Flood" disk... ■

*Bio: Pat Finnigan is a service tech turned musician who writes*



*secret messages in sequences on his EPSs, wondering how much harder he can push this Malvern silicon before it reverts back to sand. His latest composition, The Ensoniq Suite, has been banned by Hans Solo, but is available on EPS disk since it isn't an audio medium and violates no community standards.*

# Live "Improvisation" with the ESQ-1 Sequencer

## An Oxymoronic Approach

Brian Rost

Mention sequenced music to most people and they think immediately of stiff, mechanical, canned music. It might seem odd to suggest that sequencers can be tools in live improvisation, where the ability to respond to other musicians and the audience is of prime importance. In fact, the sequencer of the ESQ-1 (and really, all the Ensoniq sequencers) is quite well suited for interactive use in live performance. In this article I'll be discussing some tricks and techniques for using sequenced material as part of improvisations.

The ESQ-1 sequencer breaks sequences up into two levels. At the top level are songs, which are merely lists of pointers to the sequences at the lower level. When recording and editing, the ESQ-1 deals strictly at the sequence level. During playback, either songs or individual sequences may be played back. In fact, sequences can be chained together in real time during playback, a feature which allows the techniques I will be describing.

There is storage in the ESQ-1 for 30 sequences (60 in the SQ-80). Each of the sequences contains, in addition to the note and controller information, the data from the MIX/MIDI pages (volume, MIDI channel, local status, program number), the time signature, tempo, and the state of the CONTROL page when the sequence was saved. On the CONTROL page are parameters for enabling the click track, countoff and looping. When songs are saved, the state of the CONTROL page is also saved. When playing back a song, the CONTROL state for the song is used rather than the CONTROL state of the individual sequences.

If a sequence is saved with looping on, when that sequence is played back independent of the song, it will repeat until you hit STOP or you select another sequence. To see this, save two sequences with looping set on as SEQ 01 and SEQ 02. Go to the SEQ page, select SEQ 01 and then hit PLAY. You will notice that SEQ 01 is underlined when selected. Let it run through to the end and you will hear the sequence restart. At this point, select SEQ 02. You will see a flashing underline appear underneath SEQ 02 and SEQ 01 will continue to play. As SEQ 01 comes to an end, SEQ 02 will start up and SEQ 01 will no longer be underlined, while the underline below SEQ 02 will no longer be flashing. You can now select SEQ 01 again, and when SEQ 02 comes to an end, SEQ 01 will start again. However, if at any time you do not select a new sequence, the last selected sequence will continue to repeat.

Now, to put this into the context of a live performance assume we have 30 sequences loaded into memory. Unfortunately, we

cannot name them, so you may need to make a chart so you can identify them by number. If all 30 are stored with looping on, we can chain them together in any order, in real time. In effect, we are building songs on the fly. The ability to loop on a particular section of music, then exit to any other section allows you to vary the structure of a song every time you choose to play it. I'd like to show how to apply this technique to solve a common problem with using sequenced material in a top 40 dance band. Suppose your band does a popular tune that packs out the dance floor every night, and you would like to be able to "stretch" the song with additional solos on nights when the crowd is really going, actually tailoring the length of the song as it is playing. Break the song into individual sequences for the beginning, solo and ending sections. Store these as SEQ 01, SEQ 02 and SEQ 03 respectively. Create a song consisting of SEQ 01 played once, SEQ 02 repeated a nominal number of times and SEQ 03 played once. If you choose to stretch out on the gig, instead of selecting the song, select SEQ 01, hit PLAY, then select SEQ 02. Once SEQ 02 begins, it will loop until you select SEQ 03 to end the song. You should select SEQ 03 on the final soloist's last pass through SEQ 02. At any given performance, you have the option of playing a short or extended version of the song.

Now, how about manipulating the sequences themselves. The ESQ-1 allows you to modify values on the MIX/MIDI pages while a sequence is playing. This means you can mute parts by double-selecting a track on the TRACK MIX page. We can also adjust the volume if we choose by selecting the track and using the up/down arrows or data entry slider. By going to the TRACK PROG NUM page, we can send patch changes in real time. I'd suggest that if you are driving outboard MIDI devices, you do this only when no notes are being sounded on that track, since it may cause note cutoffs. Local voices won't have this problem because any held notes will use the old program. You may even change the status of a track on the fly, which allows controlling whether the track will be played by the ESQ-1 locally or by an outboard device. The caveat with changes to the MIX/MIDI Pages is that when a sequence loops, the old MIX/MIDI values are restored. This can cause some rather abrupt changes to happen, voices changing volume, patches switching, etc.

It's also possible to add controllers to any of the tracks during playback. Simply select a track and then you can use the pitch-bend wheel, mod wheel, CVP pedal or XCTRL to modulate the program on that track.

If you have spare tracks available in a sequence you can use

these to play along in real time if you choose. The advantage of doing this over using the "straight synth" portion of the ESQ-1 is simple. When using the straight synth alongside sequenced parts, it is difficult to balance volumes. If you play on a blank track, you can control volume via the MIX/MIDI Pages. In addition, you can change MIDI channels and track status so you can quickly switch from playing the part on the ESQ-1 to any outboard device. You can even switch between outboard devices by making channel changes. If you have a pet patch you like to use for soloing, you can have this already defined in the saved sequence, so that all you have to do to access that patch is select the track.

Another parameter that can be adjusted in real time is tempo. Tempo may be adjusted easily from the SELECT or LOCATE page with the data entry slider. Unlike the MIX/MIDI data, the tempo will not reset to the original value when the sequence loops. This means that you can speed up or slow down tempi as needed while the sequence plays. However, when a new sequence begins, the tempo will jump to the stored value.

So far all this relates solely to previously recorded music. But the ESQ-1 also allows adding new music to sequences while playing them. This is an exciting feature, but it has some limitations. Any time a sequence is playing, simply hitting

RECORD will throw the ESQ-1 in ODUB mode. Whatever track is currently selected will now be ready for recording. This allows you to change an already recorded part or to add a new part on an empty track. When the sequence comes to an end, the sequencer goes into AUDP mode, and plays back the sequence with the newly recorded part. The limitation here is that you may not select a new track or a new sequence until you stop playback. While this can be a real disaster for a pop tune, if you are doing sound sculptures, hitting STOP, KEEP NEW TRACK and PLAY in rapid succession will allow you build up an improvisation, track by track. In fact, once you are done playing the sequence, you can save it to memory and take it home with you from the gig!

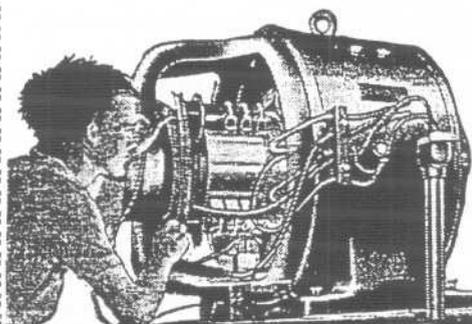
I hope this has provided some ideas for ways to use sequencing in live performances that go beyond using it as a glorified jukebox. As you can see, the ESQ-1 sequencer can be a very responsive tool when used interactively. So get creative and let the technology enhance your musical expression. ■

*Bio: Brian Rost spends his evenings either hunched over his SQ-80 or playing bass with the HUBCAPS, a Boston-based roots rock band. To unwind during the day he designs computers.*

## "Genius at Work kind of product..."

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# Backwards!

Tom Shear

When I made the quantum leap from owning a rackmount Mirage to an EPS-16+ recently, my mind was boggled by the incredible power I now had to manipulate my sounds in ways that had been next to impossible before. (Of course, what isn't next to impossible when you're dealing with that little flickering two-digit display?) One of the things I had the most fun with was turning the sounds backwards. Come on, admit it! You did it too! You dusted off that old Beatles record and used your new \$2000 toy to determine once and for all if Paul was dead. Well, it's nothing to be ashamed of. In fact, used creatively, backwards effects can be very rewarding. This time, we'll be exploring:

## The Backwards Drum Loop —

Drum loops. It seems that everyone in popular (and even not-so-popular) music today is using them. For the uninitiated, a drum loop is simply a drum beat sampled off an existing record and looped so it can be played over and over and over again. Most people's tendency is to loop the beat and use it as the sole drum track on the song. There are some reasons why you wouldn't want to do this. For instance, the sound quality on older albums you may be sampling from probably isn't good enough to support the entire track or also that it raises some interesting ethical questions. Most importantly, however, it's just not very creative! So many people mix these beats with their own beats either from a real drummer or their sampler/drum machine. This is better, but we can get even more creative than that! We can throw it at 'em backwards! Some of the quicker readers out there might be thinking, "Aha! But there's no backwards loop available on the EPS-16+, you fool! How am I supposed to get my CD to play backwards?" The answer, of course, is you don't! You get your EPS-16+ to do it for you! Here's one way I found to do it:

1. Boot up your EPS-16+ and dig up the LP (remember those round black things?) / cassette / CD, or whatever you're planning on sampling the beat from. Hook up your wires so that your source is going into the AUDIO IN of the EPS and sample it. Most sampled beats on records today are no longer than 1 or 2 bars. This is all you really need, and memory becomes a BIG problem if you get too carried away.

2. Using the FORWARD LOOP, set up a loop of the correct length (so that the rhythm will play continuously without sounding like a skipping record) and truncate whatever's left after the LOOPEND.

3. Now go back and change the loop's MODE to BACKWARD-NO LOOP. The beat plays backwards now, but every one or two bars you have to retrigger the key.

4. Here's the key part. Go over to the EFFECTS SELECT button and change the current effect to OFF — 7-VOICE 78K. Don't worry, this is only temporary, you'll be able to add all the effects you want later. Hit COMMAND-WAVE and scroll to RESAMPLE WITH EFFECT and ENTER. The EPS will now ask you to which instrument, layer, and wavesample do you want this "new" sample placed. This should be set to whatever instrument, layer and wavesample you originally sampled the beat in, in most cases, you'll be starting from scratch, so you can just hit ENTER here. The EPS will now ask for the key to resample. This should be set to whichever key you pressed when the EPS asked you from the ROOT KEY. ENTER. Next, you'll be asked for the RECORDING TIME. You can either time the beat out with a stopwatch before you get here, or you can simply guess, which is what I usually do. Be generous, you can truncate all the extra time off later. Hit ENTER. Finally you are asked which recording channel to use. This defaults to RIGHT, which is just dandy for our purposes, so press enter again. You should now hear the EPS "sampling itself" and will see the familiar KEEP = OLD / NEW prompt. You can play a key to test it if you wish, but your EPS probably did a pretty good job, it doesn't really get off on practical jokes, at least not until you're in the middle of a crucial performance...

5. Get a cup of coffee. The hardest part is over.

6. Now, repeat step 2 again and you should have your backwards loop! Since setting the loop on a backwards beat can be kind of tricky, here's a little trick to help you out. Try to determine the BPM (beats per minute) of the beat you sampled. Sometimes on more recent club records it tells on the cover, but otherwise you'll have to do some experimenting. Set the TEMPO value on your sequencer so it matches this. Now, using your sampled beat, record a four bar sequence of the beat, just pressing the key once and holding it throughout the sequence. (Since you don't have a loop yet, you won't hear anything after the first bar or two, but don't worry, keep holding it until the end of the fourth bar!) Now, set up for a FORWARD LOOP and move the LOOPEND to where you think it should be. Play the sequence and listen to see if the beat plays in time with the click, and if there is a "skip" between the fourth and first bar when the sequence repeats. Letting the sequence play, make whatever adjustments you need to in order to get them to play in time without skips. As before, once you've found your LOOPEND, move the SAMPLE END time down as far as it will go (to the LOOPEND's value) and TRUNCATE it.

And there you go. You can now set the effect to your taste and make any other final changes you wish. The next time you're recording a drum track and it needs just a little something to

make it jump out and grab the listener, throw your backwards loop underneath the track see if that doesn't add that extra punch. For the skeptical, backwards drum tracks have been used to great success by artists ranging from Jimi Hendrix (somehow I doubt he did his on an EPS, though...) to EMF, who feature a backwards bongo line in their hit "Unbelievable." Of course, this trick isn't just limited to sampled beats, you can use it to produce backwards loops for sampled synth sounds, acoustic instruments or whatever you want! So give it a try! If it doesn't add that spice you need to your masterpiece, you can always go back to those Beatles albums and listen to



them backwards until something comes to you. ■

*Bio: Tom Shear uses his EPS-16+ and SQ-80 to write industrial music and to annoy anyone within hearing distance. In-between he attends classes at Syracuse University — if the urge hits him.*

← (World famous lounge lizard pose.)

## Classifieds

### EQUIPMENT

Will trade Mirage, EPS, or 16+ libraries for 1960's vintage combo organs. Barry Carson (315) 379-9763.

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Alesis model 1622 16-channel mixer for sale - extra power supply and gig bag included - \$600. Original EPS w/ 2X expander and SCSI, \$1200. Roland D-110 sound module, \$400. Barcus Berry BBE 402 Sonic Maximizer, \$175. All in good condition with manuals, etc. 503-245-3752.

EPS-M excellent condition. EPS & Greysound floppies included. Call Swift: 1-800-678-3154.

### SAMPLES

SoundProcess/Mirage Library for sale. 6 disks, all with the SoundProcess Run-time OS, for \$80 including postage, or \$15 each plus \$1 postage. Specify Lush, X, DeMiTy, Addy, Turbo, or Keyboard. Each disk has approx 110 sounds on it. Bob Spencer, 703 Weatherby Ln., Greensboro, NC 27406.

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### PATCHES/SOUNDS

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### SOFTWARE

Midcaster is still available. The way-cool operating system that turns your Mirage into a very capable System Exclusive data librarian, a 20,000-note sequence player, a disk copier/formatter, and wave-draw synthesizer is still available for a limited time. For more information, or to order, contact Tim Martin, 1510 S 5th W, Missoula, MT 59801. Phone: 406-542-0280 And thank you for your support.

### WANTED

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Wanted: Real PIPE ORGAN SOUNDS for SQ-1 Plus. Can use Commodore 64, Arthur G. Toby, 1378 44th Ave., San Francisco, CA 94122. Phone: 415-664-7746.

### INSTRUCTION

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## ESQ & SQ-80 Hackerpatch

By Sam Mims

### ESQ Patch: ANALOG

by Claudio Sansilvestri, Barasso, Italy

*This is one of my favorite patches. I developed it by listening to a Keyboard soundpage of Suzanne Ciani playing "Eighth Wave." The interesting thing about this sound is that it is made not by detuning a saw wave for all the oscillators, but by syncing together a sine wave as a modulator (OSC 1), and another sine wave as a carrier (OSC 2), more or less like a DX-7. Added to this was a sawtooth*

*wave for the third oscillator. The envelopes and filter were set up to cut the sound back after the attack, yet still leave a bit of sustain. Try changing the octaves of OSC 1 and 2 to create bellish sounds using only sine waves. Or, with the original octave settings, try changing the waves of OSC 1 and 3 for other variations of this sound.*

### The Hack

This could easily be mistaken for an Oberheim or a Memorymoog; it's a very nice sound from the days of analog. To go even more in that direction, I set the GLIDE to 13 (on the MODES page) and cranked the filter resonance up to about 22 (this works well at any setting; adjust to taste). That's about all I wanted to do with this patch — other than make some music. Excellent job.

ESQ-1 PROG: Analog								BY: Claudio Sansilvestri		
	OCT	SEMI	FINE	WAVE	MOD#1	DEPTH	MOD#2	DEPTH		
OSC 1	0	0	0	SINE	LFO 1	+4	*OFF*	-		
OSC 2	-2	0	0	SINE	*OFF*	-	*OFF*	-		
OSC 3	0	0	3	SAW	*OFF*	-	*OFF*	-		
	LEVEL	OUTPUT	MOD#1	DEPTH	MOD#2	DEPTH				
DCA 1	32	ON	ENV 2	+53	*OFF*	-				
DCA 2	32	ON	ENV 2	+53	*OFF*	-				
DCA 3	32	ON	ENV 1	+53	*OFF*	-				
FILTER	FREQ	Q	KEYBD	MOD#1	DEPTH	MOD#2	DEPTH			
	0	3	0	ENV 3	+63	ENV 3	+33			
DCA 4	FINAL VOL	PAN	PAN MOD	DEPTH						
	63	8	LFO 2	+48						
LFO 1	FREQ	RESET	HUMAN	WAV	L1	DELAY	L2	MOD		
	20	OFF	ON	TRI	0	1	0	WHEEL		
LFO 2	12	OFF	ON	TRI	63	1	20	ENV 4		
LFO 3	-	-	-	-	-	-	-	-		
ENV 1	L1	L2	L3	LV	T1V	T1	T2	T3	T4	TK
	+63	+56	+63	0	0	0	49	54	39	0
ENV 2	+63	+54	+4	32	32	10	57	32	44	0
ENV 3	+63	+36	+2	0	0	0	38	60	45	0
ENV 4	+63	+55	+42	32	0	0	63	32	42	0
MODES	SYNC	AM	MONO	GLIDE	VC	ENV	OSC	CYC		
	ON	OFF	OFF	0	ON	ON	ON	OFF		
SPLIT/LAYER	S/L PRG	LAYER	L PRG	SPLIT	S PRG	SPLIT KEY				
	OFF	-	OFF	-	OFF	-				



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

*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. Requests for particular patches are also very welcome.*

# SD & VFX Hackerpatch

## SD & VFX Prog: BABY-BABY

By: Eric Olsen, Pegasus Sounds

NOTES: This sound is an example from my collection of 120 sounds that I offer. This is the belly synth sound used in Amy Grant's song, "Baby, Baby."

THE HACK: BABY-BABY works quite well for doing a cover version of this song. It gets into a little bit of trouble, though, when it is played much beyond the range of Amy's chord line. The problem is the sampled UNI-BRASS wave used in Voice 2 — it doesn't transpose very well without sounding nasty. (Solo that voice and play the top octave of the keyboard for a painful illustration.)

The solution is to change UNI-BRASS to SAWTOOTH, then adjust FILTER 2 to thin out the

WAVES	1	2	3	4	5	6
Wave	Sawtooth	Uni-Brass	Doorbell			
Wave Class	Waveform	BrassSnd	TunedPerc			
Delay	000	000	000			
Start	-	-	00			
Vel Start Mod	-	-	00			
Direction	-	-	Forward			

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

PITCH	1	2	3	4	5	6
Octave	+0	+1	+3			
Semitone	+00	+00	+00			
Fine	+00	+02	-02			
Pitch Table	System	System	System			

PITCH MODS	1	2	3	4	5	6
MODSRC	Timbr	Off	Off			
MODAMT	+76	-	-			
Glide	None	None	None			
ENV1	-11	+00	+00			
LFO1	+04	+04	+04			

FILTER 1	1	2	3	4	5	6
Mode	LP/2	LP/2	LP/2			
Cutoff	000	062	127			
KBD	+51	+00	+00			
MODSRC	Wheel	Off	Off			
MODAMT	+32	-	-			
ENV2	+61	+35	+99			

FILTER 2	1	2	3	4	5	6
Mode	LP/2	HP/2	LP/2			
Cutoff	070	000	127			
KBD	+00	+00	+00			
MODSRC	Wheel	Wheel	Wheel			
MODAMT	+99	+99	+94			
ENV2	+00	+00	+00			

OUTPUT	1	2	3	4	5	6
VOL	79	92	60			
MODSRC	Off	Off	Off			
MODAMT	-	-	-			
KBD Scale	+00	+00	+00			
LO/Hi Key	-	-	-			
Dest Bus	FX1	FX1	FX1			
Pan	50	50	50			
MODSRC	Off	Off	Off			
MODAMT	-	-	-			
Pre-Gain	Off	Off	Off			
Voice Prior	Med	Med	Hi			
Vel Thresh	+000	+000	+000			

LFO	1	2	3	4	5	6
Rate	33	43	33			
MODSRC	Off	Off	Off			
MODAMT	-	-	-			
Level	00	00	16			
MODSRC	Press	Press	Press			
Delay	00	00	00			
Waveshape	Tri	Tri	Tri			
Restart	On	On	On			
Noise SRC RT	00	70	00			

waveform; I set the CUTOFF at 085, and left the other parameters intact. The sawtooth synth waveform unfortunately doesn't have the nice motion that the sampled brass wave does; by detuning it a fair bit (set FINE = -10 on the PITCH page) you can create a chorusing that approximates this.

At this point, the patch plays pretty well except in the top octave-and-a-half, so I dropped the OCTAVE of all three voices one notch and got another octave of usable range on the bottom. The DOORBELL wave still freaks out on the top few notes, though. Setting LFO=00 on the PITCH MOD page cures the problem, but at the expense of a nice subtle animation in the sound; I preferred to leave it alone and just stay away from those few notes.

- Sam Mims

### SELECT VOICE

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

ENV1	1	2	3	4	5	6
Initial	00	-	-			
Peak	00	-	-			
Break 1	00	-	-			
Break 2	00	-	-			
Sustain	00	-	-			
Attack	24	-	-			
Decay 1	00	-	-			
Decay 2	00	-	-			
Decay 3	00	-	-			
Release	00	-	-			
KBD Track	+00	-	-			
Vel Curve	Cnvx2	-	-			
Mode	Norm	-	-			
Vel-Level	00	-	-			
Vel-Attack	00	-	-			

ENV2	1	2	3	4	5	6
Initial	99	99	99			
Peak	99	75	99			
Break 1	85	50	85			
Break 2	60	25	64			
Sustain	25	00	27			
Attack	50	15	00			
Decay 1	55	14	25			
Decay 2	50	29	26			
Decay 3	85	43	60			
Release	67*	48*	50*			
KBD Track	+00	+00	+00			
Vel Curve	Linear	Cnvx2	Cnvx2			
Mode	Norm	Norm	Norm			
Vel-Level	00	50	49			
Vel-Attack	00	00	00			

ENV3	1	2	3	4	5	6
Initial	99	99	00			
Peak	99	90	99			
Break 1	99	80	99			
Break 2	99	50	99			
Sustain	99	00	00			
Attack	27	57	00			
Decay 1	00	50	00			
Decay 2	00	50	00			
Decay 3	00	50	00			
Release	30*	30*	30*			
KBD Track	+00	+00	+00			
Vel Curve	Cnvx2	Cnvx2	Cnvx2			
Mode	Norm	Norm	Norm			
Vel-Level	00	08	08			
Vel-Attack	00	00	00			

### PGM CONTROL

Pitch Table	Off
Bend Range	**
Delay	X4
Restrike	41
Glide Time	00

### EFFECTS (1)

Effect	8 Voice + Chorus
FX1	60
FX2	45

### EFFECTS (2)

Chorus Rate	20
Depth	18
Delay	47
Feedback	+21

### EFFECTS (3)

FX2 Mode	Nrml Stereo Send
----------	------------------

### PERFORMANCE

Timbre	00
Release	00
Pressure	Key

## Prog: Steam Caliope

By: Jack Carder, Springfield, VT

Notes: This gives a nice out-of-tune, old-time circus music patch. Suggest playing melody: G4 – G6, and chords: G3 – G4.

WAVE	1	2	3
Select Voice	On	On	Off
Wave Class	TunedPerc	TunedPerc	-
Wave	RackBell	RackBell	-
Delay Time	0	0	-
Wave Direction	Forward	Forward	-
Start Index	0	0	-
MODSRC	LFO	LFO	-
MODAMT	0	0	-
Restrk Decay	41	41	-

PITCH	1	2	3
Octave	0	0	-
Semitone	0	0	-
Fine	0	-48	-
ENV1	0	0	-
LFO	+01	+01	-
MODSRC	Vel	Vel	-
MODAMT	0	0	-
KBD Pch Track	On	On	-
Glide	Off	Off	-
Glide Time	0	0	-

ENV1	1	2	3
Initial	27	27	-
Peak	00	00	-
Break	43	43	-
Sustain	00	00	-
Attack	03	03	-
Decay 1	47	47	-
Decay 2	17	17	-
Release	29	29	-
Vel-Level	06	06	-
Vel-Attack	66	66	-
Vel Curve	Concave	Concave	-
Mode	Normal	Normal	-
KBD Track	0	0	-

LFO	1	2	3
LFO Speed	38	38	-
Noise Rate	0	0	-
Level	26	26	-
Delay	53	53	-
MODSRC	Wheel	Wheel	-
Wave	Sine	Sine	-
Restart	On	On	-

FILTER	1	2	3
Filter 1	2Lo	2Lo	-
Filter 2	2Hi	2Hi	-
FC1 Cutoff	0	0	-
ENV 2	+99	+99	-
FC1 KBD	+19	+19	-
MODSRC	LFO	LFO	-
MODAMT	+10	+10	-
FC2 Cutoff	0	0	-
ENV2	0	0	-
FC2 KBD	+28	+28	-
FC1MOD-FC2	On	On	-

ENV2	1	2	3
Initial	00	00	-
Peak	74	74	-
Break	82	82	-
Sustain	01	01	-
Attack	14	14	-
Decay 1	10	10	-
Decay 2	99	99	-
Release	22	22	-
Vel-Level	40	40	-
Vel-Attack	06	06	-
Vel Curve	Convex	Convex	-
Mode	Normal	Normal	-
KBD Track	+70	+70	-

AMP	1	2	3
Initial	82	82	-
Peak	99	99	-
Break	93	93	-
Sustain	93	93	-
Attack	03	03	-
Decay 1	24	24	-
Decay 2	55	55	-
Release	16	16	-
Vel-Level	19	19	-
Vel-Attack	86	86	-
Vel Curve	Quikrise	Quikrise	-
Mode	Normal	Normal	-
KBD Track	+98	+98	-

OUTPUT	1	2	3
VOL	90	90	-
Boost	Off	Off	-
MODSRC	LFO	LFO	-
MODAMT	+05	+05	-
KBD Scale	Zone	Zone	-
Key Range	C2-G5	G5-C7	-
Output Bus	FX2	FX2	-
Priority	Med	Med	-
Pan	0	0	-
Vel window	0	0	-

Standard  
Sound  
Programming

## Effects Programming

(To save space, only those effects utilized are listed. A complete blank form was published in Issue #68.)

### HALL REVERB

FX-1	31
FX-2	50
Decay time	25
Diffusion	40
Detune Rate	40
Detune Depth	12
HF Damping	33
HF Bandwidth	93
LF Decay	+07
MOD (Dest)	FX2 Mix
BY (MODSRC)	Pedal
MODAMT	0

*Bio: Jeffrey Rhoads has been a keyboardist/composer on the Philadelphia Jazz and R + B scene for a period of time resembling forever. He has an interest in cinema and has developed some film courses. Jeff still believes in magic and longs for city lights.*



**The Hack:** Steam Caliope is a good re-creation of the old Big Top staple. It can be used to create a playful or circus-like atmosphere in songs, jingles, soundtracks, etc. Voice 2 is tuned 48 points below Voice 1. Since Voice 2 is zoned only to the last octave and a half, it causes these notes to be "out" by a whole step. While this may be accurate for the old caliope it is not altogether usable. Adjust FINE in Voice 2's Pitch Section to -10 for a less dramatic change. Also the Rack Bell wave used here begins to distort some at C6 so you may want to find a different use for Voice 2. If you layer these voices the resulting sound may not be "true" but will be fatter. In Voice 2's Output Section change KEYBD SCALE to -40; this will tone down the upper octave and spread the voice across the entire keyboard. Both voices will now sound together and Voice 2's slight detune generates a fuller sound. If the wave distortion in the upper octave bothers you, in the Pitch Section for both voices drop OCT to -1. This still leaves you a pleasing patch.... but now it's the ever popular Detuned Bass Steam Caliope of the early 1900s.

Jeffrey Rhoads

SQ-1 & 2 Hackerpatches are published with the same constraints and understandings as the ESQ, SQ-80, and VFX patches. The hacking and mutilating part is being handled by Jeffrey Rhoads.

# 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, PAN: TRANSONIQ, Internet (via CS): 73260.3353@compuserve.com.

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

Dear Hacker,

Is anyone else beside me bothered by the fact that the SQ-Rs won't respond to MIDI Pan (Controller #10)? Since I work with a sequencer that has its own mixer and pan controls, the implementation of this feature is important to me. Can we get Ensoniq to do it?

A tip about the EPS-16+: It will do a load-up from an external sequencer command. First, pick the track that corresponds to whichever EPS Inst location that needs to be loaded. On that track, insert a program change, minus one, that corresponds to the file (Inst) you want to load. (I.e. Prg Change 3 loads File #2.) It can also load banks, too, as the EPS just reads a file-load command. It would probably work with FX, but I haven't tried it.

Rick Ledbetter  
Los Angeles, Calif.

[CS - Rick, there is a way to simulate MIDI-controlled panning in the SQ-series, but it involves using at least two voices, and may involve more tweaking than you care to do. However, it's not all that difficult to program two similar voices, and to assign an external MIDI controller to control the volume of each (this is done from the SQ Output menu pages). The trick is to assign the MIDI controller so that it modulates output level in a positive direction for one voice, and a negative direction for the other. If the two voices are then panned hard left and hard right (also controlled via the Output section), you can simulate automated panning by using the MIDI controller to fade one voice in while the other is being faded out.

Also, I found it interesting that you mention being able to load banks via MIDI program change commands. As nearly as I can tell, this feature is not implemented in the current EPS-16+ OS, although apparently Ensoniq is working on adding it to the next OS release. If you've found a way to make it work, I'd appreciate hearing exactly what steps to take, and with what hardware and OS to reproduce your results.]

[Ensoniq - The SQ products only offer a limited number of discrete pan positions, so it didn't seem to be of much value to

respond to that controller. The SD-1 and VFX-SD products do offer more panning capabilities and so we can support panning.]

Dear TH,

I'd like to ask: Just exactly what is the problem with the output stages of the EPS that was fixed on the EPS 16+? I assume that it is the demon which causes the incredibly annoying 'click' at the beginning of some low-frequency samples.

Thanks,  
Barry Sanders  
Urbana, IL  
bsanders@mrcnext.cso.uiuc.edu

[CS - There was never any real problem, per se, with the original EPS output stage, although at one point the output of the EPS was upgraded to increase its level. The output of the EPS-16+ has been re-designed since the original EPS, with one of the major changes being that digital to analog conversion is handled differently, and by different hardware, resulting in improved fidelity.]

Hello Hacker Staff,

Being a long-time user of our beloved Ensoniq products, there is some assistance which I would like to request.

I am a solo performer and have used the Ensoniq Sampled Piano Module (SPM-1) since its debut on the market several years ago. What I would like to know is if anyone can advise me on how to make one unit overflow into another SPM-1 module. The overflow function is most useful on my rack-mount Mirage modules, SQ-80, and ESQ-M, but I would like to know if it's possible to have two SPM-1s overflow for a 20-voice polyphony.

Before I close, a side note to the great folks at Ensoniq: I would buy a 76-note SD-1 and an Ensoniq drum machine - if they were available.

Thank you for your time and attention.

Warm regards,

Michael Kuk  
Clinton, Iowa

[CS - Unfortunately, the SPM-1 does not support overflow mode. There are gizmos, though, that will let you assign ranges from a keyboard controller to different slave MIDI devices, which would allow you to play two SPM-1s from a single controller, with no overlapping of notes. I'd check into products from Anatek and Music Digital, Inc. - they may have something that would help. And perhaps one of our readers knows of something that will allow you to simulate an overflow mode using your SPM-1.]

Dear Hacker,

Re: The Timing Errors article by Roshan Kumar (Issue #82).

I have also experienced this problem in my SQ-1. When I contacted Ensoniq, they told me it was a timing bug and set my board up with O.S. 1.01. This has helped the problem some.

However, I do still encounter these errors and have learned to work around them. I'll delete the inner bars of a sequence (e.g. on an 8-bar sequence, delete bars 3 - 6) and usually have no problems. I have yet to try the Duration solution, but I have high hopes.

I do still thoroughly enjoy my ESQ-1, EPS, Mirage, and now my SQ-1. However, Hey Ensoniq - can you give us loyal customers a break on SQ-1 upgrades?!

P.S. The data cartridge article (also Issue #82) was very useful.

Thank you!  
Marty Munoz  
Corpus Christi, TX

[Ensoniq - We have priced the SQ upgrades as reasonably as we can, considering that they involve replacing the whole mainboard. The mainboard is the majority of the circuitry in the SQ, and therefore the majority of the cost of the product. Since you have an original SQ-1, an upgrade to an SQ-1 PLUS 32 Voice will give you 2 additional megabytes of 16-bit ROM waveforms, 11 additional voices and 80 new Sounds. Not a bad deal for the money!]



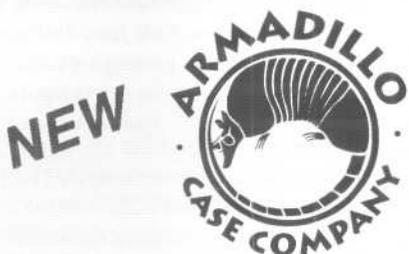
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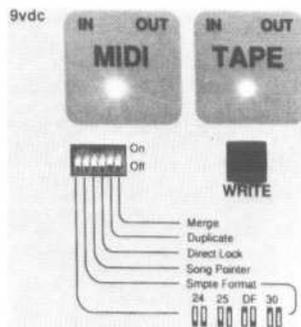
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Dear TH,

I am the owner of a VFX-sd, upgraded to an SD-1. I love the keyboard but am very disappointed with the constant freeze-ups, sustaining notes and weird problems that, no matter how many times they repair it, still remain.

I am going to buy an IBM computer and Cakewalk sequencing program. What I want to know is if I will be able to record my SD sequences into the new sequencer and if you know of any problems I might run into before I jump in. Is there any other equipment I'll need to run my song through to the studio mixer? I still want to use the Ensoniq sounds but I can't rely on their sequencer, so I would appreciate your advice.

Thanks so much,  
Joanne Delgado  
North Island Productions  
Grass Valley, Calif.

[CS - Joanne, you should have no trouble moving your sequences into the IBM. If you want to play them over manually, be aware that each track of the SD-1 needs to be set to either MIDI or BOTH status before it will

send MIDI data to the IBM. Also be aware that each track needs to be on its own unique MIDI channel. This can be a bit more complicated than it sounds, however, since MIDI channels are assigned per sequence. What this means is that if you have a number of sequences chained to form a song, it's possible that the same track (track 1, for example) might send on different MIDI channels depending on which sequence is currently.

I'd also recommend looking into Giebler Enterprises' excellent IBM utilities (Giebler Enterprises, 8038 Morgan Rd., Liverpool NY, 13090-2009, (315) 652-5741) which are designed to (among other things) translate Ensoniq sequence files into standard MIDI files, which can be read directly by Cakewalk and other IBM sequencing programs. For more information, check out last month's TH cover story.]

[Ensoniq - It sounds to us like you should still have your unit checked out. Your keyboard could be defective, not the mainboard. Contact Customer Service (215) 647-3930 so we can help you.]

Dear TH,

I would like to thank the Hacker and Ed Lecuyer for taking the time to review our SQ80VFX software in the March issue. The favorable review has already generated an increasing interest in our products.

Most of the improvements suggested by Mr. Lecuyer have already been made to the SQ80VFX program, and I would like to pass them along to your readers. The program is now faster than the version reviewed, and allows the user to format VFX-sd (SD-1) disks either during the conversion to VFX-sd or separately. The user can select which files on the SQ-80 diskettes are to be converted to VFX-sd sequences, and converted files remain on the hard disk, allowing the user to copy the files to another VFX-sd disk at a later time. Current owners of the software can upgrade to the latest version for \$6 which includes shipping and handling.

Please continue to send your ideas for new products and improvements to us. Per your requests, Giebler Enterprises can now accept Visa and MasterCard orders. Improvements and new features are added to each of our programs on a regular basis - many as a result of your suggestions either directly or through the Hacker. The Transoniq Hacker still continues to be the best forum for new

ideas for Ensoniq keyboards.

Thanks again, and keep up the good work!

Gary Giebler  
Giebler Enterprises  
Liverpool, NY

[CS - What a coincidence, Gary! I was just mentioning you to the correspondent above. Thanks for the info!]

Dear T.H. & Ensoniq:

I went to my local dealer the other day to purchase the new EPS Joey DeFrancesco Signature Series package (ESS-15). It sounded so terrible on my (original) EPS that the salesperson wouldn't even sell me the package. What gives? Are these "Signature Series" samples incompatible with the original EPS?

What happened to the "Load a sample while a sequence is playing" feature that was advertised when the EPS-16+ first came out? I've been waiting to see if Ensoniq actually implements this powerful feature before purchasing a new EPS-16+ module.

Still no word on the EPS O.S. V2.5? I was able to get my hands on the latest V2.49 though. Ensoniq was kind enough to send me a copy. Thank you. Is there any documentation concerning the new features that are included in the new O.S.?

I realize that these are troubled times with the economy being the way it is - so how are you doing, Ensoniq? All of us Ensoniq equipment owners seem to be requesting more and more from you folks. So how are you people holding up? How's the company doing?

Keep up the good work.

Sincerely yours,  
James Rosand  
Port Angeles, WA

[CS - While I'm not familiar with any problems relating specifically to the Joey DeFrancesco Signature Series disks, there are a couple of things to keep in mind when trying to play EPS-16+ sounds on an EPS Classic.

The first thing to check out is filter cutoff. On the EPS-16+, filter cutoff goes from 0 to 150, whereas on the EPS it ranges from 0 to 127. Consequently, if filter cutoff is set higher than 127, the EPS may have trouble

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interpreting the numbers. On the EPS classic, try moving the filter cutoff point all the way to 0, then back up to a setting that sounds good.

The other problem has to do with the fact that the EPS-16+ has a new gain boost parameter. If a programmer uses this parameter to get a bit more volume out of a sound, you may have trouble getting the sound to play back at the correct volume on the EPS classic. The solution is simply to check and make sure that the volume for any wavetable that seems to quiet is turned up. The volume parameter is accessed from the Edit/Amp menu.

Of course, the fact that you may not be listening to the sound played back through the EPS-16 PLUS's digital effects might have something to do with it too – if you can, check out the sound on an EPS-16+ with its effects turned off. This should give you some idea as to whether or not the effects are making a big difference in the quality of the sound.

As far as OS upgrades are concerned, Ensoniq is working to get both the EPS 2.5 OS ready for public consumption, as well as the long awaited "load while the sequencer plays" upgrade for the EPS-16+.]

[Ensoniq – Clark is correct, what you heard was the filter value that was set to 150 for the EPS-16 PLUS, while the original EPS only goes to 127. The Filter 2 is set to be a Hi Pass, and this extended value causes it to wrap around and affect the sound negatively.

Try selecting the whole layer for editing, and moving the Cutoff for Filter 2 all the way down and then all the way up again. This will easily correct the problem.

Regarding O.S. upgrades, we should be ready by the next issue of the Hacker to announce the release of the next O.S. for the EPS-16 PLUS. Stay tuned...]

Dear Transoniq Hacker,

I bought an SD-1 last October and have been loving it ever since. It's my first serious keyboard and I've been having a blast with all the sequencing and sounds. Now here comes the bad part:

One night I was using the Append feature in my sequencer (O.S. 3.00). I had a two measure drum track and appended it into 32 measures. Just to be on the safe side I went

to sequencer control to check my total memory. To my astonishment there were exactly zero events left. So I decided to dump a few sequences to free up memory, but the whole thing froze up. Nothing would work except the last patch on my keyboard. After some thought, I opted to turn it off. I waited maybe a minute, and turned it back on. Usually it says, "calibrating keyboard – do not touch," but this time it just read "calibrating" in the upper left-hand corner and stayed like that until I turned it off. Twice more I turned it on – same results.

The next day, however, I turned it on and it kicked in just fine, but had somehow reinitialized itself in the wee hours of the morning. I re-loaded the operating system, and used it with no problems until it made another error. A sequence was looping when the loop display read "OFF." I tried to erase the last measure, but it froze up once more. It was the same thing all over again, but this time I reloaded the operating system from the master VSD-200 in hopes that it was an error within my copy.

It works fine, but I don't know whether it will happen again, and I can't see how a software bug in the sequencer's O.S. could be affecting the hardware function of calibrating the keyboard when turn it on. If you've got any ideas or just plain sympathy I'd really be glad to hear about it.

Oh, and by the way, you guys put out an excellent magazine. I love bragging to all my Yamaha and Casio friends that I've got an unbiased, high-quality magazine dedicated to helping me get the best out of my board. Keep up the good work!

In your hands,  
Nathaniel Reichman  
Valdez, Alaska

[CS – Your problems sound pretty gnarly, Nathaniel. I'd definitely suggest getting in touch with Ensoniq Customer Service (215-647-3930). They should be able to provide with more than just sympathy.]

Dear TH,

I own an SQ-1+ which I find very exciting and I'm just beginning to program some sounds. I have some questions:

Can you give me some tips on the different envelopes and waves to use for creating an accordion sound and a harmonica sound?

Is it possible to program an acceleration/deceleration in a sequence – or is it only possible by sliding the "data entry button" while the sequencer is playing?

In spite of the explanation in Section 7 of the Blue Book, I don't understand the relationship between a sequence and a preset. For example, if I create a preset which is made up of three sounds, how can I use this new, rich sound in a sequence insofar as it takes up three tracks of the eight I can use? (You see, I'm a halfwit!)

Many thanks for your answers.

Bivel Sylvain  
Hirson, France

[CS – There are a number of pretty good accordion and harmonica type programs already in the Ensoniq sound library for the SQ – I'd suggest heading down to your dealer and checking them out for ideas on how to create your own. Nevertheless, you might try using an AMP envelope with parameters set to something like this:

50 99 99 99  
15 00 00 20



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Once you have that together, it's easy enough to experiment with the various waves. Interestingly enough, a number of the Bass waves work pretty well to simulate harmonica and accordion sounds – but don't neglect the other waves either.

As far as tempo changes within a sequence go, the only way to do them (other than to play the tracks at the correct tempos in the first place, and avoid quantizing) is to chain together individual sequences at different tempos, as each sequence in a song can have its own tempo setting which will be remembered as the song plays.

The only difference between presets and sequences is that presets have no sequence data recorded into them. If you want to use a three-layer sound in a sequence, the easiest thing to do is to record the part using one track (layer) and then copy the part to the other tracks (layers). This will use up three tracks of your sequence.]

Dear Hacker,

I was pleased to see in the February *Hacker* that at least one computer lab had developed software to format a Bernoulli

cartridge as an EPS-readable SCSI drive. I purchased a Bernoulli drive some time ago with hopes to use it with my EPS. After many trials and tribulations and calls to IOMEGA, it became apparent that the inability of the EPS to support off-line formatting made use of the IOMEGA drive impossible.

Don Suite of Salt Lake City, Utah, sent a note to the *Hacker* regarding the formatting of a Bernoulli cartridge for use as an EPS drive. Unfortunately, directory assistance cannot provide me with a number for Don. I am hoping that Don will read this and contact me at the address or phone supplied with this letter, so I can follow-up with the lab he used.

If anyone out there has any information that would be of assistance in developing a Macintosh program to format a Bernoulli cartridge as an EPS-readable drive, please let me know. I have spoken with Giebler Enterprises about the problem. Unfortunately, Gary's software only runs on a PC, and does not format a SCSI device.

The IOMEGA drives are supposed to be substantially more reliable than Syquest cartridges, and I am confident that a solu-

tion to this problem will offer a transportable, high-capacity removable cartridge in a reliable form for EPS customers. IOMEGA has assigned Brian Boyle, one of their tech gurus, to assist me, but we need data regarding the Ensoniq SCSI format. Perhaps Ensoniq, or some enterprising third-party, can help. If I get a solution, I will be happy to clue the rest of you in so that EPS users can use a Bernoulli drive.

Thanks for all your help.

Sincerely,  
Timothy J. Conlon  
1900 Hospital Trust Tower  
Providence, RI 02903  
(401) 272-6700

[TH – This is probably a good place to mention the *Hacker's* policy regarding giving out names and numbers and such. Unless there's something specific saying it's okay (as in the letter above), we just give the city and state. If someone tries to contact another reader, we're happy to pass along a note or whatever, but then they have to get back to you. (Although this doesn't mean we want to become an international letter drop...) We passed Timothy's questions on to Don Suite and he passed it on to his friend in the computer lab. We've yet to get back any response from him, but we'll keep you posted if we do.]

Dear TH,

Thanks to your way cool magazine I've probably stuck with the EPS much longer than I ever thought I would. Of course, I've moved up from my original EPS to a rack-mount turbo 16+, but that's not the same as switching to Akai. The point is, just when I'm getting itchy to move on to something else, I can check the *Hacker* for updates, samples, and accessories that are interesting enough to keep me from jumping ship.

One excellent example is the Waveboy PED review recently. Man! Just thinking about the possibilities forced me to call and order it immediately.

Which brings me to my question: What happened to the Tiresias' program for the Mac/EPS? I've been trying to contact them by phone without success and there's no way I'm just going to send a check and hope for a disk to show up. There's an answering machine that picks up, but it doesn't identify anyone/anyplace and whoever it is never returns calls. If the program isn't available anymore, can a working version



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be made available to a BBS like the one I downloaded the demo version from?

Now, a message for Ensoniq... Okay guys, I know that you're busy planning the next unit to be unleashed upon us, but before you get past the point of no return I want to let you know what's needed out here in the trenches. And yes, we want you to keep it affordable, but I think most of us would pay a few hundred more for THE axe.

1. Don't even consider putting out an instrument without at least 3Mb of battery-backed RAM (upgradeable w/SIMMs), SDS and SCSI.

2. For cost purposes: put the rackmount version out first and consider implementing a master controller instead of having a keyboard version. Since there's a rackmount of everything, just concentrate on one keyboard that works with everything. Consider leaving the FX and sequencer as an add-on module that can be used just like the internal versions.

Almost everything out now has EG controlled resonant filters - DON'T BE LEFT OUT! I've passed on lots of stuff just because it didn't have resonant filters. With all the hacker-types that buy your stuff and read this mag I'm sure there's more than a few nods on this issue because it's a very powerful tool.

Try to incorporate some form of alternative synthesis, i.e., FM, AM or something like E-MU did with the EMAX or come up with some bizarre algorithm that makes everything weird (e.g. different). If anyone remembers Serge Modular, they had some special modules that were expressly designed to randomly warp everything.

Now remember, these are suggested ADDITIONS to what you're already doing very well. Don't start that trade-off stuff or the cost-prohibitive story we've heard before and still don't care about.

Thanks to TH for a very useful mag and keep up the good work!

Jared Stewart  
Los Angeles, Calif.

[TH - Well, Jared, down here in the real world, trade-offs and costs have a way of getting even with people who try to ignore them.

Tiresias was developed by Chip Burwell of Bokonon Technologies, so we passed your

questions on to him. His response:

"Bokonon Technologies has always been a one-man show and, unfortunately, never became profitable. I'm not sure who you called but if you call me at 312-733-3244 I'll be glad to sell you a copy of the working program. Although my answering machine doesn't give details on the program these days, I do return calls and would recommend leaving your name and a nighttime phone number."

[Ensoniq - Well, we're sorry, but you're not going to like this answer.

Thanks for the input, but remember that the cost of doing everything we currently do, plus adding all the things you asked for, plus the inevitable tricks we have up our sleeve that you haven't thought of make for a very expensive instrument. For example, battery-backed-up RAM is very expensive, and our users seem very concerned about the cost of their instruments. Rackmounts at the right price are important, but our warranty data doesn't show that all of our users want only racks, or separate modular design, and industry sales also show that they are still the minority of units sold. We can't be all things to all people, at our size we have to try to make the right trade-offs and design decisions.]

Dear TH/Ensoniq,

I recently spoke with one of the volunteer tech support people listed in the *Hacker*. Part of our discussion was about possibilities for the next generation Ensoniq sampler. While the volunteer had interesting ideas for improved hardware, I find myself thinking mostly about how the EPS-16+ O.S. could be improved in such a way so that the costs would merit the effort.

As a result, I am writing to suggest add-ons or refinements to the current EPS-16+ O.S. that seem highly effective and not intensive as far as development time is concerned.

I use the EPS-16+ rack for algorithmic composition, video soundtracks and Mac sequencing. I often use the EPS as a the only sound generator, mixing multi-channel sequences in real-time via MIDI controllers. While the EPS hardware is more than adequate, I find that the system software comes a hair short of really letting me get all I can out of it.

The following suggestions are intended as an inexpensive way to keep the machine



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#### ACCESSING SAMPLES FROM THE HARD DISK

Bank files should be loadable via MIDI. This could be implemented almost identically to how instruments are loaded via MIDI program changes (I have heard rumors that something like this is in the works.)

Loading instruments via MIDI program changes only works when instruments being replaced. Before running a sequence I manually load 8 empty samples. When I load a set of samples in the middle of a thirty minute sound track I first load empty instruments the EPS to clear the memory then load each new sample separately I manually adjust the time between program changes in the sequencer to allow the EPS to finish loading the previous sample. Using MIDI to load banks should take care of the timing and memory allocation problems.

I like to organize samples by type in my hard disk directory. It would be helpful to be able to write a file to any file number within a directory.



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#### SELECTING EFFECTS

The effects processor is almost uncontrollable via MIDI.

The minimum upgrade should enable MIDI to select any ROM effect or one of 64 user effects stored in non volatile RAM. The user effects could be parameter variations on the ROM effects and would not have to be 64 sets of DSP code This upgrade would give the programmability and MIDI implementation of a SPX-90.

An intermediate upgrade would take all the features mentioned above and add MIDI control of effect/dry mix plus one other parameter.

The optimum upgrade would be modeled on the Ensoniq 4/DSP effects processor The EPS effects processor software could be a 1 DSP chip version of this.

Presently, the effects processor feature seems crippled. I mainly use it for a master reverb, because of the lack of control via an external sequencer.

#### MIDI MODULATION SOURCES

It would be helpful to have more MIDI controllers per instrument, Polyphonic aftertouch, pitchbend and three assignables.

The flexibility and expressiveness provided by MIDI controllers on the EPS is brilliant These feature were un-matched when I bought the instrument a year ago To date only one sampler comes close in this area.

#### SYSTEM EXCLUSIVE

To my knowledge neither Alchemy nor Digidesign are written for the EPS-16+. The only Mac program that I know of that supports the 16+ is Tiresias. Tiresias is great for editing parameters but doesn't support sample transfers or editing.

The system exclusive should be easy enough to encourage more third party developers to use it If the Tiresias implementation is too difficult to use, it defeats its purpose.

#### MIDI SAMPLE DUMP

If the EPS sysex is so difficult for third party developers to support, the EPS should at least support the MIDI Sample Dump. The MIDI sample dump should be as standard for samplers as MIDI System Exclusive, MIDI Files and MIDI Time Code

are for sequencers I wouldn't buy a PC based sequencer that did not support these features.

If it is too difficult to integrate into the current O.S., I would be happy to pay for a self booting utility disk for the EPS that has the MIDI Sample Dump utility. Reading one mono multisample at a time and saving it as a single layer would be fine I don't mind re-programming the fine point if I can at least get the data.

I have read that the Kurzweil K2000 implements the MIDI sample dump, can read Akai disks and is supported by several Mac sample design programs.

#### EPS SOUND LIBRARIES

Who has used the transwave feature? The feature is brilliant — but to my knowledge it has not been supported. I would be happy to pay for a set of disks that exploits this aspect of the instrument. It would be great to have a set of these sounds designed by the sound designers at Ensoniq. If nothing else the sounds could adaptations of VFX sounds.

#### THE USER'S MANUAL

The musicians who encouraged me to buy the EPS explained that the learning curve was steep. Prior to buying an EPS I rented one for a job and found the manual hard to use. The index contains many useless references. I found several entries that referred me to the topics listing in the table of contents.

I have generally spoken very well about the instruments but explain to people that it is a difficult instrument to learn. However, I recently loaned my EPS to a friend to use for a rap video. I sat down with him for two hours, explained only what he needed to know to do his project. Interestingly enough he had no problem whatsoever. It seems that the problem of the learning curve is linked to the manual.

As a result I recommend a manual that is in two parts. The first part would be a very thorough explanation of creating single layer multi-sampled instruments (along with effect and sequencer basics). The second part would be a detailed explanation of how to take advantage of advanced aspects of the instrument such as envelopes, hard disk loading of samples, using MIDI controllers, working with multi-layered samples ... etc. Finally, there would be a carefully written index with sub-sections for some entries.

I would be willing to pay for a new manual that included these improvements.

P.S. I would be interested to hear other people's views on prospective improvements to the EPS in the *Hacker* or via e-mail.

Neil Leonard  
Internet address: nleonard@ecn.mass.edu

[CS - Even as we speak, Ensoniq is working on the next OS release for the EPS-16+ which should allow you to load bank files via MIDI program change command. As far as *Alchemy* and *Digidesign* are concerned, both support sample transfers to and from the EPS and EPS-16+. I use *Alchemy* myself, and find that sample transfers specifically designed for the instrument in question are preferable to MIDI Sample Dump, as well as to the new SMDI SCSI-MIDI Sample Dump standard, in that SDS is extremely slow, and SMDI, while faster, does not seem to preserve keyboard mapping information.

I'd like to know if anyone has made use of the EPS-16+ transwave feature, too. It does seem like a pretty cool thing - is anyone out there doing anything with it?

[Ensoniq - You offer some great suggestions - some more possible than others. The next O.S will allow you to load Banks via MIDI program changes. But adding non-volatile memory, and the effects architecture you suggest would be more than an O.S., it would involve hardware redesign. The effects processing was meant more for enhancing the on-board sounds than for external MIDI control, and the processing power to offer more control over it and the voice modulation you ask for would also tax the main processor. This could result in timing errors for the sequencer, LFOs and other time-based parameters.

If you want to transfer and edit samples, then both *Alchemy* and *DigiDesign's Sound Designer* work excellently for the EPS-16 PLUS. That is what we use for all our sound development efforts. Also, *Interval Music's GenWave* for the Atari and *Turtle Beach's* program for the IBM work perfectly.

We can't respond point for point, but you offer well-thought out ideas and we will keep them in mind for this product and future products as well.

Thanks for writing.]

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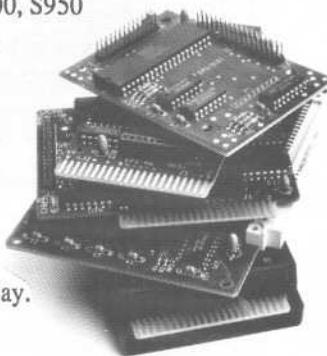
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