

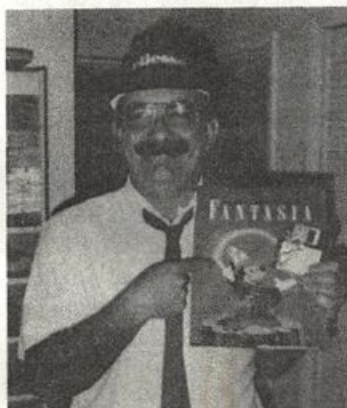
# Transoniq

# Hacker

The Independent News  
Magazine for Ensoniq Users

## More SQ-Tips '93

Pat Finnigan



Once again, here it comes. Your friendly local music dealer has received his allocation of hot new gear, and he's called you to come in and see what's moving and shaking. Two choices present themselves: you can (a) hop over and see what the competition has wrought, lusting after new toys and generally depressing yourself by not owning the latest Turbo Cuisinart, or (b) say "No, thanks" and blow it off. Choice (b) presents two alternate choices, (i) wondering what you might be missing, and (ii), saving yourself the torture of drooling over gear you can't possibly afford. Since this is an unusually flat economic election year (ii) seems to be the rule of thumb.

But for the life of me, I can't understand why people who have barely scratched the surface of operating their musical instruments practically give their old instruments away just to buy this year's model. Not that I'm complaining. As a matter of fact, thanks, guys, you're making it possible for family guys like me to be able to

equip ourselves with your old affordable gear. And the real hoot is that the majority of other keyboard manufacturers are simply upgrading their instruments to Ensoniq standards. Things like changing patches on the fly without muting the sustaining note, non-destructive editing, MIDI SysEx sequencer dumps (ESQ-1, 1986), disk drives (DSK-8, 1984), SCSI HD support (EPS, 1987) — it's more a question of why the other companies waited SOOO long. The ox is slow, but the world is patient, just like your SQ, waiting for you to get busy with it.

So rather than buzz down to your dealer and drool over new and moist gear, get busy showing all your friends they have a long road ahead trying to catch up to the SQ's performance standards. Here's some new tips and tricks guaranteed to turn heads:

### Live Performance Tips

(A) Use that edit buffer! If you find yourself looking for the one patch in an obscure "Card B47" location, don't worry about copying it over an Internal patch that you may later wish you could restore. Drop the patch into the edit buffer simply by selecting it and pressing the "Edit Sounds" button. Now, whenever you need that patch, it's only a single button press away. Really useful for holding your most commonly used sound; I use it for holding the "Grand Act" patch transposed an octave up for solo work, but hey, be creative.

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(B) Use those presets! Why settle for one patch when you can have any combination of 8, layered together in any combination of local instruments (not even counting external MIDI gear)? Exercise those double-click skills; the preset not only remembers which instruments you selected and returns those settings on call, but you've got the effects section to massage that collage.

(C) Use Song Mode! When you really get serious and understand the implications of (B) above, make a one-sequence song of this preset, and double your fun in Song Mode by adding eight more instruments for a total of 16 patches on call at the push of a button. Talk about living large! All selected instruments (16 of a possible 340 local patches, non-inclusive of external MIDI voices), track routings, effects routings (and the infamous selected "double-clicked" instruments) are memorized upon storage, including pan, effect routings, levels, modulators, etc.

(D) Use the footpedal! Your hands are busy enough playing the tune and calling instrument layers with the patch/preset buttons: define the CVP-1 as a modulator and tweak your preset/song patches for modulating wave start indices, pitch mod, filter mod, etc. REREAD Clark Salisbury's SQ programming articles in the last year and a half's *THs*; excellent tutorials with on-hand, step-by-step editing. You probably glossed over some hidden easter eggs in these articles. Speaking of easter eggs, don't forget the "FS" parameter in the "Edit Song Steps" pages.

(E) Use *both* outputs! You paid good money for the SQ and choke its sonic qualities by using half of its output stages. All SQ series instruments are placed across a broad stereo stage; why constrain that image thru a mono 1/4" guitar cable?

(F) Animation! I stumbled on this one a bit ago; a variation of wave sequencing. Using one of your favorite presets, record a sequence of short length, say 1 to 4 bars, by recording one track with one short note. Erase the note by event editing. Now record foot controller information on other tracks! Set loop switch (1-0) on. When you play layered sounds as chords with the sequencer running, these controller messages will fade different tracks in and out, depending on patch selection and foot pedal proficiency (FPP?). Do it on song tracks/presets for unbelievably live textures and REALLY large pads. If you want still more motion, record pan changes (7-1) and timbre changes (7-4) into each track. Dizzying! If you want even more motion, try the Vortex at King's Island. . .

## Sequencing Tips

(A) Use Those Effects Routings! I almost always default to the "Chorus & Reverb" algorithm since it allows me five options (Dry, FX1, FX2, Control, and Voice), not to mention the HF Damping and Decay Time options on Reverb. This algorithm works really well for contemporary/sectional music. Use chorus and reverb on the electric piano and rhythm guitar tracks, reverb only for drums and vocal pads; hey, whatever sounds good, do it! My favorite is to use reverb and chorus on

sax section tracks, reverb only for trumpet/trombone parts, acoustic piano, dry upright bass, and light reverb for the drumkit when sequencing big band tunes. Light chorused sax samples are like, out the pocket, they're so good; then again, Ensoniq sax samples are pretty well buffed and moist anyway, so you can't lose!

(B) Use both footswitches! Select "Sequences/Presets," then "Edit/Copy Sound," then 9-2. See the blinking "unused" following the "FtswL=" parameter? Do something about it! I don't know how I could work without a Sequencer start/stop footswitch, either live or just noodling around in the music room here. I question the use of a sostenuto footswitch with the original SQ-1 piano samples, but I'll bet it's pretty handy when used with the Hydergine/Piracetam-enhanced piano samples of the 32-voice and mega-piano waves. Plus, when you restart the sequencer using the footswitch, the sequences resume where you left off instead of starting at the top. Kinda like a pause button on a cassette deck — really interesting for live use. Just randomly stop the song, spout some election nonsense in meter, and resume.

(C) Use Mixdown Mode! Using the footpedal to change playback levels is akin to mixing your tracks down on a Rupert Neve console using your toes; it'll work, but you're communicating on an olfactory, rather than an aural level. Besides, who's left in the control room once your socks come off? No, use the Data Entry slider in Mixdown Mode for final mixing; it's a linear fader and much more accurate than accelerating a track into a skid. Besides, if you don't hear the difference, your friends will thank you for it.

(D) Toggle Sequence/Song Tracks! I never had much of a reason for doing this, since I learned Ensoniq sequencing on an EPS. However, on an SQ, you're dealing with 16 tracks in Song mode, and there's only 8 track buttons. So rather than go through the 5-button press timewarp, get to the "Song uses effect from" page and double-click on any track button to change the 8-button slate from "Song" to "Sequence." Of course, you've gotta be working on a song (locations 70-99) to do this 'cause there ain't no song tracks in "Sequence" mode. A real time saver when you've got a bunch of tracks with the same patch on them and can't find which one has the clunker in it.

(E) Use an MC-32 card! (Like you got a choice!) Nothing is more disparaging than working 3-4 hours on a song only to have a power failure! Well, yes there is; nothing is more disparaging than seeing that "Unexpected event: ID=xxx (insert 2-3 numbers of your choice; my all-time favorites are 130, 131, and 144, although a 37 or 44 constitutes a lucky hit of lotto proportions). Work for a half hour and save to card. I know, the card's too damn small, but it's all we got (until some enterprising third party designs a disk drive to plug in the card slot). SQX-70-enhanced SQ owners (including me) have the added problem of the card not being large enough to hold our work. The only solution is to save to an EPS as a SysEx file (save your sounds, too!), or save to a computer-based librarian/sequencer. I do both, because I've had weird transfers from my



Mac running Performer 3.42. Oddly enough, I've never had a corrupt file or a bad load x-ferring data to the SQ1 from an EPS. I guess the EPS and SQ's like to share secrets or something. Use the card; all you live users.

For all you SQ-2 owners, you get the added fun of using key pressure as a modulator, so experiment using that with the above examples; I would've added pressure except it's a luxury SQ-1 users don't have. It's been almost two years since the SQ-1 and I made acquaintances; I'm still discovering new tricks and applications using it. I remember how excited I was after writing my first tune with it; I climbed on it again yesterday and was equally excited after doing another tune. You know, sometimes maybe the planets are aligned, your musical ideas run out of your fingers directly into a sequencer. I'm just really glad it's an Ensoniq board. I don't have to leave the key-

board and grab the mouse and wring what I tried to play out of a computer, not to mention the pain in the arse of changing focus from music to software and juggling the two in some diabolic pretext of making "music." Not that it has any flaws, but the SQ's really excel at organ, brass, pad sounds, drums; hell, it's really not weak anywhere but the pilot compartment.

Now if Ensoniq could do something about that. ■

*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.*

## Front Panel

### RND (♪♪♪)

#### Hacker News

**Correction Dept.:** Last month an Interfacer mentioned the availability of RAM cards for the SQ in England for about £35 (\$20 US). Actually, the conversion factor was probably inverted here because the price in U.S.\$ would be closer to \$54.

**Call for writers:** (This happens every time a radically different new instrument comes out.) We're in dire need of articles concerning the DP/4 (and the effects section of the ASR-10). If you're one of the new owners of one of these critters and you've been discovering or stumbling on tips, anomalies, short-cuts, applications or whatever — now's a good time to break into the exalted ranks of *Hacker* writers by sharing your thoughts with the rest of us.

**Call for programmers:** We could also really use some more Hacker-patches for the SQ-1/-2 & KS-32.

We'd like to welcome some new advertisers: **CompuLite Concepts** — maker of user-configurable MIDI lighting controllers, **The Rhythm Factory** — merchant of Gospel sequences for EPSs & ASR-10s, **Rave Records** — (*Attention Basement Tapers!*) an independent record label looking for demo tapes, and finally, **Jerry Huntsinger** — the first ever Hacker to use a display ad to sell his old gear.

### 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.

**SD-1 Questions** — Philip Magnotta, 401-467-4357, 4 — 10 pm EST.

**VFX Sound Programming Questions** — Dara Jones, Compuserve: 71055,1113 or Midi-net and Fido-net. The local BBS is the Nightfly in Dallas: 214-342-2286.

**SD-1 Questions** — John Cox, 609-888-5519, (NJ) 6 — 8 pm EST.

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

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

**EPS, EPS-16 PLUS, & ASR-10 Questions** — Garth Hjelte. Rubber Chicken Software. Pacific Time (WA). Call anytime. If message, 24-hour callback. (206) 821-5054.

**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.



**Tape:** Untitled.  
**Artist:** Edward L. Burke.  
**Contact info:** 146 Meadow Drive, Shippensburg, PA 17257-8983.

**Equipment:** EPS, VFX, Outboard effects — Yamaha GEP 50, BBE Sonic Maximizer.

This is my first review actually written in 1993 and it brings us a double helping of music and madness from Ed Burke that he wrote, long ago, in 1990. The first, *HOLE IN ONE*, is an upbeat fusion piece that has a very nice stereo spread and interesting instrumentation throughout.

The second offering, *DOGGY IN THE WINDOW*, is a complete surprise. It is a reminder of what samplers are all about and why they are amazing and powerful instruments. It is FUN! Ed has apparently managed to get his son to speak into a microphone and make a wide range of noises, sounds, squeaks and grunts, as well as several well rehearsed and, I would guess, often repeated phrases! He then turned his EPS into a son-o-phone, or syntho-boy, or an electronic sonphony. Whatever you decide to call it, it is amazing and automatically appealing. I dare ya to not light up with a smile when you give a listen.

Ed says, "I decided to send you a demonstration of what I've done on the EPS. I love sequencing and composing and am constantly pumping out tunes. Since I cannot read music, I find the EPS to be a marvelous tool."

"I sent you two songs to enjoy. The first is entitled *HOLE IN ONE*. I golf obviously. All sounds are the factory sounds you acquire with your EPS purchase. *HIT KIT, DRUMS, DIG BASS, STRATOCAST, DIG PIANO, SAWTOOTH, ECSTASY, MIDI INST. TO VFX > SWELL STRINGS, CLASSICAL PIANO, POP PIANO.*

"The second song is the EPS with outboard gear only. It's entitled *DOGGY IN THE WINDOW* for obvious reasons. I sampled my son (Chase Edward, age 6) saying different things. The song is his voice only."

"Presently I'm with my full-time band, *The Trust*, and am primarily composing and performing for a living."

Ed, besides giving his tunes obvious titles, has a real sense of what makes a song flow. His introductions send you right into the song. The beat is established and moves you on down the line and an interruption or two keep you attentive without losing you.

The best thing here is Ed's fun and frolicking *DOGGY IN THE WINDOW*, which took me completely by surprise. The worst thing is that he only sent me two songs, and I wish there was more to listen to!

Good luck with your future projects, Ed, and I hope to get a tape from your band or your own self in the future. Happy New Year! ■

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



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

### 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





(800) 800 - 4654

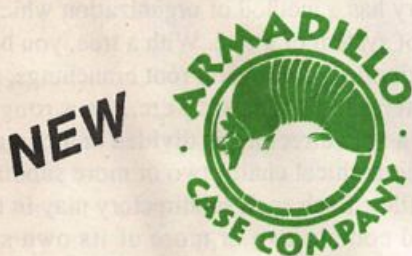
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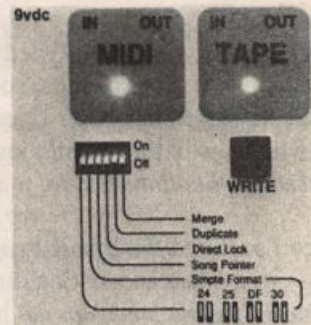
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# An EPS/ASR-10 Rhythm Directory on Floppy Disk

## Part I

Phil Rogers

I'd be willing to bet that a lot of you new (and not so new) EPS and ASR-10 owners who, like me, haven't yet scraped enough cash together to spring for a SCSI port and hard drive, also haven't imagined any practical use for the CREATE DIRECTORY command (on the EPS' COMMAND/SYSTEM page). A directory provides the means to save/store more than 38 files on a disk, and to organize and classify this large volume of files, enabling you to locate a file you want to load, relatively easily. For most applications, there is not much likelihood you would be able or need to fit that many files on a floppy, due to the fact that the instruments fill up the available disk memory fairly quickly (and how many songs will you program using that same bank of instruments?).

But, I wanted a way to store and load all of the drum sequences from several beat books I had acquired (see bibliography) on one floppy disk, and so I set out to create a rhythm directory. At first I became quickly confused following the instructions in the *EPS Advanced Applications Guide*, so I called Ensoniq Customer Service, and was lucky enough to reach one of their people who had worked on the "Bonus Beats" disk (from Volume 8 of the SLT 10-pack Sound Library) which is a less extensive version of what I was planning. He patiently led me through the steps of how to use directory commands, so that, even though I couldn't replicate those steps after I got off the phone, I knew there were no bugs in the system, just in my brain (and in the *Advanced Applications Guide*: more on that in a minute).

Once I acquired the *Bonus Beats* disk, things started to heat up — now I had an existing directory to work with, and the *Volume 8 Sound Disk Manual* had quick and easy-to-follow, step by step, button by button instructions on how to enter a basic directory and how to find and load sequence files from it into the EPS' internal memory. It wasn't very long before I began to understand the internal architecture of a directory. I then recognized that, although all the essential information I needed was presented in the *Advanced Applications Guide*, it was not in an accessible enough form (at least not for me) to have understood it without a lot of brow beating and plenty of good help.

So, for those of you who have had similar problems, I'm offering this hands-on tutorial as a (hopefully) foolproof method of learning to create and use directories. Assuming

that at least some of you have no prior experience with the topic, and haven't yet purchased either the *Bonus Beats* or Gary Morrison's *Xenharmonic Scales* for the EPS (also organized in the form of a directory), I'll start from scratch.

Basically, a directory has a method of organization which is analogous to the root system of a tree. With a tree, you have a main root, which divides into several root branchings, and those in turn further subdivide, etc., etc., In a roughly analogous manner, a root directory is divided and contains (farther down the hierarchical chain) two or more subdirectories and/or other files. Each such subdirectory may in turn be divided into and contain two or more of its own subdirectories and/or other files. See page 17 of the *Advanced Applications Guide* for a sample schematic diagram of a very rudimentary directory structure. When you create your own directory (including one you'll create while performing the exercises which follow) it's an excellent idea to keep track of what you are doing by making a similar schematic drawing as you go along, and to save it in a notebook. Having the entire contents of a directory structure visible like this will allow you to easily scan for the file(s) you want access to. Since each subdirectory, as well as the root directory, can have up to 38 files in it, things can get rather convoluted in some areas of the structure, and it ends up being a time saver and a stress reducer to keep such a map.

Ok, let's push some buttons. First, load up the POWER DRUMS (or your own favorite drum kit) into the EPS' internal memory, choosing INSTRUMENT/TRACK 1. Now press COMMAND/SYSTEM, and quickly press keypad 6: the LCD should read "CREATE DIRECTORY." Note that this means "create subdirectory," as you are creating your first division or subdirectory of the root directory. Press ENTER/YES, and you'll see "DIRNAME = NEW DIRECTORY." Use the arrow (cursor) buttons to change this to "DIRNAME = RHYTHMS" and again press ENTER/YES.

Let's see what we have so far: press LOAD. You should see "FILE 1 RHYTHMS"; press the right or left arrow button: the LCD should read "0 FILES," meaning there are as yet no files in our subdirectory RHYTHMS. Press any of the three remaining arrow buttons to go back to "FILE 1 RHYTHMS," then press ENTER/YES again: the disk drive will cluck and the LCD will read "BACKUP TO ROOT." This means that you are in a subdirectory of the root direc-



tory, and (don't do it yet!) if you again press ENTER/YES, you will go "back up" to view the file(s) of the root directory. Instead, first press the right arrow button, and you'll see the name of the directory you're currently in: "THISDIR = RHYTHMS." Now press ENTER/YES, and "FILE 1 RHYTHMS" will appear, once again (meaning that file 1 of the root directory is called "RHYTHMS").

Staying in LOAD mode, drill the last few moves with the cursor and ENTER/YES buttons for the sake of greater familiarity. At this point, the main thing to remember when a file number and name appear (i.e., in our example, "FILE 1 RHYTHMS") is that you can push the side arrow buttons to find out how many files are in the subdirectory RHYTHMS, in this case, zero files. If a "BACKUP TO..." message appears, pressing the right cursor will show you what directory you're currently in.

Let's add a second subdirectory to our root. First pull up "FILE 1 RHYTHMS" on the LCD. Since we're now viewing the contents of the root directory, we can add our second subdirectory to it. Press COMMAND: "CREATE DIRECTORY" will again appear on the LCD, so press ENTER/YES and you'll see "DIRNAME = RHYTHMS" because the display defaults to the most recently named directory file. Use the cursor buttons to rename this subdirectory "DRUMKITS," and again, press ENTER/YES.

Let's check our results again: press LOAD. The display will read "FILE 2 DRUMKITS"; the right/left cursor buttons will bring up "0 FILES," since neither have we saved any kits nor created any further subdirectories within this DRUMKITS directory. The up/down arrows will toggle between "FILE 1 RHYTHMS" and "FILE 2 DRUMKITS," in other words, will enable us to view the two files within the root directory. Now press the up/down buttons until "FILE 2 DRUMKITS" is showing. Enter the DRUMKITS subdirectory by pressing ENTER/YES: the display will read "BACKUP TO ROOT" and the right/left buttons will bring up "THISDIR = DRUMKITS." Press COMMAND then INSTRUMENT buttons, scroll to "SAVE INSTRUMENT" and, after pressing INSTRUMENT/TRACK button 1 until it is lit, press ENTER/YES twice to save POWER DRUMS (or whatever kit you loaded earlier) into the DRUMKITS subdirectory.

Now press LOAD, and "FILE 1 POWER DRUMS" will appear, since the EPS display defaults to the most recently saved or created file when the LOAD button is pressed. Now press SYSTEM and the display reads "BACKUP TO ROOT." Press INSTRUMENT and "FILE 1 POWER DRUMS" reappears. Since we don't need to re-load our drums, let's press the SYSTEM button, and when "BACKUP TO ROOT" appears press ENTER/YES. We will see the

first file in the root directory appear, i.e. "FILE 1 RHYTHMS." Press the UP arrow, toggling to "FILE 2 DRUMKITS" so we can verify that our POWER DRUMS are where we would expect them to be. Press the RIGHT or LEFT arrow: the display will read "1 FILES." Yep, it's looking good so far! Now let's press ENTER/YES again since this should allow us to view what is in the DRUMKITS subdirectory, namely, our POWER DRUMS.

Whoops! What happened? Instead of saying "FILE 1 POWER DRUMS" we see "BACKUP TO ROOT"!?!?! The right/left buttons show we're in the correct directory: "THISDIR = DRUMKITS." #%&\$@?!?! The EPS is playing its old tricks again. Well buddy, you're right. Now, if you please, press the INSTRUMENT button: "FILE 1 POWER DRUMS" again appears. Now you get it, right?

The other half of the trick is as follows: say you've been working from another disk (one without a directory) and you throw this directory disk in the disk drive, to load up a bossa nova beat as well as the POWER DRUMS. You press LOAD/ INSTRUMENT and the LCD reads "NO INSTRUMENT!" Well, we know that earlier we had saved POWER DRUMS to the DRUMKITS subdirectory, and while in LOAD mode we had pressed INSTRUMENT to verify that POWER DRUMS in fact came up on the screen. Now we press LOAD and INSTRUMENT, and the rather disconcerting message "NO INSTRUMENTS" appears. What now? Well, it seems that whatever was saved to the directory must needs be accessed via the directory structure — you have to go into the directory, then find the subdirectory where you saved the file in order to again find and load that file. So, press LOAD, then SYSTEM, and work your way down the paths of subdirectories until you locate the instruments, banks, songs, sequences or MIDI files you want to load.

End of Part I. Next month we'll actually go through the process of creating and filling our beat directories. ■

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## The Rotating Speaker Simulation, the ASR-10 and the EPS-16+

It Can Be Real!

Barry Carson

When I was a young rock organ player, one of the things I saved my dollars for that I earned playing at the Teen-Centers was a Fender VibraTone. The VibraTone (for those too young to remember) was a small Leslie speaker in a Fender cabinet that would match your Twin-Reverb. That was the beginning of my infatuation with Mr. Leslie's wonderful invention. I later moved up to a Model 147, and recently I've had a chance to use a number of the digital Leslie simulators available. The purpose of this article is to explore the Rotary Speaker effect in the EPS-16+ and the ASR-10. The effect in both machines is identical, by the way.

My first observation on this matter is that including this effect in a sampling instrument was a stroke of true genius. As an organ player for more years than I care to mention, I can say that most synthesizers can't really sound too much like authentic organs (and authentic is the key word here). No matter how great the organ waveforms are, things like note foldback are often impossible to synthesize. Using the art of creative multi-sampling it is possible to re-create incredible organ sounds (possibly the subject of a later *Hacker* article), and using the Rotary Speaker effect can make these sounds come alive. I would also like to mention that anything I say in this article is simply a suggestion; since we are dealing with what is essentially an illusion, opinions may vary widely as to which illusion is closest to the actual experience of listening to a mechanical Leslie.

Let's take a look at the Leslie 147 speaker and try to capture that elusive sound with our Ensoniq sampler. First load the very best organ sample you can find. Select Effect ROM 9, Rotary Speaker and Reverb, hit Edit Effects and scroll up to Variation 2, Clean 122. Go across to Reverb after Roto and set it to 0, keep going across to Fast-Slow switch and set it to Patch. Now we have the straight Leslie effect; we

can add reverb later and use the wheel to add vibrato without speeding the Leslie up (and we also can speed up the Rotor without adding vibrato).

Let's listen to what we have. On the real Leslie the movement of the rotors and horns affects the sound in two main ways. First there is a change in volume; a speaker that is pointing at you will seem louder than one that is pointing away from you. Second there is a change in pitch. Back in high school physics you learned about the Doppler effect. As the speaker horn rotates toward us, the sound waves emitted by the horn will bunch closer together thus raising the pitch a tad. As the speaker turns away the sound waves will lag a little behind and stretch out and the pitch will seem to drop. An irony of all of this is that if you were small enough and decided to ride the rotating Leslie horn, you would hear none of this pitch shifting because the sound would never approach you or recede from you. The sound source would be, relative to you, stationary. So we have two auditory clues that we are listening to a Leslie speaker — change in volume and pitch. There are other, more subtle ways that a rotating speaker affects sound, but their explanations go beyond the scope of my vocabulary. And spinning around is not all that a Leslie does — it spins around at two speeds and the player can switch between the two as part of his or her performance.

Let's go to the EPS-16+ or ASR-10. Crank the Rotating Speaker effect up to fast speed and listen. To my ears the default speed setting is a little too fast. Not that a real Leslie doesn't turn that fast, it's more that the effect at that speed becomes kind of a gigantic vibrato, like your Aunt Edna used to get on her Mighty Wurlitzer. My choice for fast rotor speed is between 65 and 70. Pick a speed that, to you, creates the best illusion of a Leslie speaker on high speed.



Now that you've got the fast speed set, hold a few notes and hit the Patch Select switch. Listen to the ro, rro, rrrro, rrrror slow down. Each rotor on the real Leslies had two motors, one for fast speed and one for slow. This was to make speed changes happen very quickly. Some devices, like Yamaha's RA series of pseudo Leslies, use only one motor to drive the rotating speakers. With this kind of setup, it is impossible to achieve very quick speed changes. On something like a 147 the treble horns changed speeds almost instantly, while the bass rotor changed more slowly (not because of the motor slowing down, but because of looser tension on the belt that drove the rotor). Since the EPS-16+/ASR-10 effect only reproduces one rotor, you have something along the lines of a Fender VibraTone or a Leslie model 16. That being the case, setting the Rotor Inertia parameter would be like adjusting the belt tension on the real Leslie. My personal taste in this matter leads me to set this parameter to zero or one. This gives a pretty quick change and also gives a very noticeable transition period. After all, you do want people to notice that this is a Leslie effect you are using, a point that would be moot if you had a huge, wooden Leslie up on stage with you.

Now, I know people who disabled the breaking mechanisms on their Leslies so that it would take half a song for the treble horns to speed up or slow down. This wouldn't be to my liking, but it might be the sort of sound you dote on. If so, the settings for the Rotor Inertia parameter go all the way up to 99. Find the setting that sounds most like the Leslie of your imagination changing speeds.

For the Slow speed, I like the default setting of 1; you may find some other setting that sounds more realistic. One point worth mentioning is that, while it is possible to set the slow speed higher than the fast speed, the EPS-16+/ASR-10 won't switch between the two.

Now that we have our speeds and rotor inertia set, let's go back and look at those pitch and volume changes that give the Leslie its characteristic sound. This is the one place where my ears must not agree with the Ensoniq engineers and programmers. As I've mentioned before within these pages, the EPS-16+/ASR-10 effect lacks some of the subtleties of the acoustic/mechanical Leslie effect. The pitch shift is too intense, creating (to me) an unpleasant vibrato effect. This is especially noticeable at high speed or while changing speeds. An easy way to deal with this is to use your instrument's flexible system of output busses. Here's how. If your organ sound is in one layer (and there is no reason it shouldn't be since you're using the on-board effects and should need no detuning, etc.), simply make a copy of that layer and have both layers active from the keyboard. Go to the Edit Amp page and send one of the layers to bus 1, Rot. Speaker and Reverb. Send the other layer to bus 2, Just Reverb. Adjust the volume of each layer until

the effect is in proper balance to the straight sound. You may want to have neither layer turned up all the way since the combined output of both layers may be too loud. I like having the straight sound quiet enough to not really be noticeable but loud enough to soften the heavy Rotary effect. In a real Leslie there will always be some sound "leakage" from the sides and back of the stationary speakers that face into the rotors. That fact may account for why I find this layering of rotary and straight sounds so effective.

Once you find the perfect mix and your rotary speaker sounds just the way you want it to, it is time to go back to Edit Effects and create an acoustic space to put your Leslie in. You should be aware that you must adjust the Reverb Mix for both busses 1 and 2. To create a realistic effect, the mix would be about the same for both. Now is also the time to add distortion if you so like. Considering how I spent years of my life trying (without much success) to figure out how to make my Leslie not distort, I am pretty familiar with this sound. I really don't have space to get into the whole thing right now, but let it suffice to say that by using the distortion In, Out and Filter along with the Speaker Gain, it is possible to get remarkably close to that grinding Leslie distortion that we all love/hate.

So there you have it. A Leslie effect that can sound pretty realistic even in solo organ torture tests. Putting this effect in a mix of other instruments can only enhance the illusion that you are playing an organ through a large, heavy, wooden box full of vacuum tubes and machinery. Well, now that I have a Hammond organ and Leslie all loaded into my sampler, there's a couple of Vanilla Fudge tunes I feel like playing.

Until next time, don't forget to oil your Leslie's motors (unless you're using the EPS or ASR Leslie, in which case feel free to forget). ■

*Bio: Barry Carson would like to thank Carl Sagan for his technical advice concerning the Doppler effect. Dr. Sagan may not remember this encounter since he was on television at the time. Sagan is rumored to be one of the men involved with the naming of the Ensoniq Mirage. His favorite color is, at this time, unknown.*

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# Public Domain Librarian Programs

*Brian Rost*

Public domain programs are usually written by users who either can't find or don't like commercially available programs, then freely distribute their work for others to use. They may not have the polish or flash of a commercial package, but the price is right — they're free.

Patch librarians are true workhorse programs. Not as sexy as full editors, they perform the basic but useful task of providing bulk or archival storage of your patches and sequences. ESQ-1 owners tired of using cassette tape and VFX owners appalled at memory cart prices have the greatest need of a librarian, but even SQ-80 and VFX-sd owners can take advantage of librarians to provide higher density storage than their synth's own disk format allows or to easily rearrange the order of patches in banks. So let's take a look at three librarian programs, two for the Amiga and one for the Macintosh, and see how they shape up.

## 1. VFXSYSEX

VFXSYSEX is a VFX patch librarian program for the Amiga written by Brien Roscetti. It is written in Amiga BASIC, so you must have a copy of BASIC to run this program. The program will work with either the VFX or VFX-sd (and presumably the SD-1, although neither the author nor I has tested this). It is an extremely simple, no-frills program, and will not be mistaken for a commercial product. Outside of the use of drop down menus, it is not mouse-driven.

The two drop down menus are "Transfer" and "Files." The Files menu has two options, "Change dir" which lets you set a new default directory (the new default is immediately listed on the screen). "List dir" simply lists the current default. One nit here is that you get a listing of all files in the directory, not just patch files.

The Transfer menu has four options: "Receive," "Auto receive," "Send" and "Quit," the last being used to exit the program. Receive is used to upload a single patch from the VFX. After selecting receive, you are prompted to go to the VFX and manually send out a single program via Sysex. When the program is received, the patch name is read from the Sysex file to provide a name for the disk file, and the patch data is saved to disk for you. Auto receive is used to upload the internal patch bank. Unfortunately, it is transferred as sixty single programs. As each program is

uploaded, a message is printed to the screen, showing the patch name and indicating successful reception. The transfer takes a few minutes to complete. The reason why Auto receive doesn't simply ask for a bank dump is obvious when you go to use the Send function. This prompts for a patch file and once you enter the name, it reads the file off the disk and sends it to the VFX edit buffer. There is no option for sending entire banks to the VFX, therefore, the Auto receive is obliged to load single programs as there would be no way to download a bank after it was uploaded. There is no support for transfers of presets.

VFXSYSEX is only one step removed from a generic bulk dump utility. However, since it is written in BASIC, the full source code is provided and the user is free to modify the code. In particular, it would be simple enough to automate uploading single programs, which is the most glaring omission. Since there is no provision for bank downloads, there is no feature for reassigning patch locations in banks, but this can be accomplished in the VFX itself by downloading single programs to the edit buffer. The biggest flaw of the program is that it is time consuming if you need to do a lot of patch swapping.

It's certainly not going to excite any power users, but if you just need something quick and dirty or a program to tide you over until you can spring for a commercial editor/librarian package, then this program fits the bill. For more information, write to: Brien Roscetti, 8 Oak Ridge Rd., Clinton, CT 06413.

## 2. ESQ

Now, let's move over to ESQ, an ESQ-1 patch librarian program for the Amiga written by Michael Black. This program is largely mouse driven and has a good graphical interface. It works with the ESQ-1, ESQ-M and SQ-80, with one exception which we'll be getting to.

On starting up, the program checks for the presence of an ESQ-1. If it doesn't find one, you are prompted to see if it is connected, turned on, and set to the correct MIDI channel with Sysex enabled. Once it finds the synth, you are provided with two windows, each covering about a third of the screen. The left window is labelled "ESQ-1 Bank" and has three buttons, "ESQ Voices," "Send Voices" and "Save Voices." The right window is labelled "Amiga Bank" and



also has three buttons, "Load Voices," "Send Voices" and "Insert Voices." Below the ESQ-1 Bank window are two more buttons, "Get All Seq" and "Send All Seq."

Click on ESQ Voices and after a few seconds, you will see the 40 internal patches of the synth displayed, in rows of five. The author has conveniently added the markers for the internal subbanks 1-4, so that the window looks like the ESQ-1 display copied four times. Clicking on Save Voices will open a file selector window and prompt you for a file name. After supplying the name, the bank is saved to disk.

Moving over to the Amiga Bank window, clicking on Load Voices will open a file selector window, and you can pick the file you just saved. A few seconds later, the patch bank is displayed in the window. Clicking on any single patch name in the window will highlight the name. Go to the ESQ-1 Bank window and click on a name there, then click on Insert Voices and the patch in the Amiga Bank is transferred to the ESQ-1 Bank. Using this three step operation, you can quickly rearrange the ESQ-1 Bank to your liking. When completed, you may save the new ESQ-1 Bank to disk with Save Voices or send it to the synth with Send Voices. Using Send Voices from the Amiga Bank window transfers that bank to the synth.

There is no option for transferring single patches. The only way to get a single patch into the synth is to upload the current internal bank, insert the single patch, and download the bank. If there is a bank on disk which you would like to make changes to, you have to download the entire bank to the synth and upload it back again in order to rearrange patches. In fact, you can't do any manipulation of patch banks unless you have the ESQ-1 hooked up to the computer and powered on.

The procedure for sequence storage is straightforward. Clicking on Get All Seqs opens a file selector window and prompts for a file name. Once the name is entered, the sequence bank is uploaded and saved to disk. Clicking on Send All Seqs opens a file selector window and after a file is elected, downloads the sequence bank. This feature will not work with the SQ-80 in the current version because of the differences in the dump request messages and dump formats (the author tells me that he is working to add support for the SQ-80 in a future version). There is no provision for transfer of single sequences.

Absent from the main screen is a way to change the MIDI channel or specify directory paths for the patch and sequence files. The defaults may be set up prior to starting the program or you may take advantage of the Amiga's multi-tasking to open a new CLI window and enter new values.

The program comes with three pages of documentation,

which is a good amount for such a simple program. Instructions for installing to a hard disk are included.

Overall, this program is easy to use and has all the essential features that an ESQ-1 owner needs for bulk storage. If you're in need of a librarian program, I certainly recommend this one. For more information, write to: Michael D. Black, 1380 Croftwood Drive, Melbourne, FL 32935-5512.

### 3. Q-LIB

Q-Lib is an ESQ-1 patch librarian for the Macintosh written in a language called MIDIBasic. MIDIBasic is a product of Altech Systems and they wrote Q-Lib as a demo.

There are two basic types of transfers possible, direct-to-disk or windowed. Direct-to-disk transfers move files between the ESQ-1 and Mac without using windows. Windowed transfers allow you to view the file contents on the screen. Sequences may not be transferred in windowed mode. There are a variety of cut and paste options for manipulation of the windows.

The patch bank window shows the forty patches, grouped in tens. At the bottom of the window are two command boxes, "Load from ESQ" and "Send to ESQ" separated by a box showing the currently selected MIDI channel.

There are four pull-down menus along the top of the screen used to operate the program.

Under the File menu, the usual open, close and save options are provided. This menu also is where the MIDI port is configured and the print command (used for printing out the names of the patches in a bank) is found.

The Edit menu has the cut and paste controls. Within a window, patches are selected by clicking with the mouse. Once a patch or group of patches is selected, they may be copied from one window to another. This makes moving large groups of patches from one bank to another quicker than most other librarian programs I've used. Cut and paste is also supported, allowing the user to remove a patch from one bank and relocate it to another.

The Direct Transfer menu is where all transfers are controlled from. You have the option of moving patch banks, single sequences or all sequences. Single patch transfers are not supported. The direct transfers may use a different MIDI channel than the windowed transfers, if desired. As with many public domain librarians, Q-Lib does not support all sequences transfers with the SQ-80.

The Options menu allows you the choice of storing files in either the Ensoniq Standard Bank format or MIDIEX for-



mat. Since MIDIEX is used by some other librarians (notably ones for the IBM- PC) this can be a help if you do a lot of patch swapping with other users.

The program limits the user to having only four windows open at a time, not a major limitation. The icons are designed to help distinguish between file types. The "three note" icon is used for all sequences files and the "single note" icon is used for single sequence files. Patch banks using MIDIEX format are clearly marked.

Despite being written in a variant of BASIC, the program is

quite fast and works flawlessly. I can heartily recommend it to Mac owners. For more information, write to: Altech System, 122 Faries Industrial Park Drive, Shreveport, LA 71106. ■■

*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.*

## Using the SD and VFX to Create Scary and Frightening Sound Effects

Joe Travo

I guess it would have been more timely to have this article written in time to get published in the August or September issue (for Halloween), but like everyone else, I got involved in actually doing something, and then when it was finished and all the bugs are worked out, I thought, "Hey, Joe! This would make a great article for the *Hacker!*" So, in addition to Halloween, this project would work well for scoring for horror films, or even as a joke soundtrack for a home video project.

One day in early October my seven-year-old daughter came home from school and announced that in addition to going trick-or-treating on Halloween, she also wanted to turn the garage into a haunted house. Paper bats and skeletons and ghosts and jack o'lanterns would set the proper mood. Being an amateur musician and hacker, I immediately thought — sound effects! Being a musician who grew up in the '60s, I also thought — psychedelic lighting! — but that's another story.

Like most other sound-based projects, I knew what I wanted, but not exactly how to get it. I guess with a sampler this might have been easier, but I still figured I could get a good result armed with my original VFX and some other equipment, like a dynamic microphone, effects box, and a four-track. Here's what I did.

First I watched a couple of old horror movies. (Not monster movies, horror movies. There's a subtle difference between the sound track that accompanies Godzilla destroying Tokyo and the one that backs up the ghouls in "*Night of the Living Dead*," and we were definitely going for ghoulish sounds

here. Once I had a pretty good sense of what type of sounds I needed, I started going through the sound banks on the VFX, listening for sounds that resembled my wish list. As I listened, I also checked out the various modulation sources, since the filter or mod wheel can make a substantial difference in the way a sound comes across. As I did this, I catalogued the sounds and noted the modulators, patch selects and key zones etc. that made the sound do what I wanted it to do.

Here's my list of haunted house sounds and their modulators:

Patch	Modulator	Patch Select
AMEN CHOIR	Pitch Wheel (Up)	**
PSYCHO STRINGS	Pitch Wheel (Up & Down)	**
OCEAN CRIES	None	**
OCEAN CRIES	Modwheel (Center Pos.)	ALL
STEELDRUM & SURF	None	*0
STEELDRUM & SURF	None	0*
CATHEDRAL/ORGAN V BED	None	00
PLAY ONE NOTE	None	00
RITUALS	None	ALL
IT MONSTAH	Modwheel/Pitch Wheel	ALL
DRONE WEST	Modwheel (Up & Down)	ALL
EL ENCANTO	None	ALL
TRANSVOX	None	ALL
SUPERWAVE	Volume Pedal (Up & Down)	00
CLOCK BELLS	Modwheel (Start Up, Go Down)	00
BASIC SPACE(octaves)	Modwheel(Up & Down)/Vol. Pedal	00
SPACE GUITAR	Modwheel (Center Pos.)	ALL
ALTEREDRUMS(heartbeat)	Modwheel (Up & Down)	00



All the sounds listed are available "stock" for the various models of VFXs except for the last three. BASIC SPACE is a guitar-bed-type of sound with screaming feedback, SPACE GUITAR 7 is a very usable synthesized-guitar patch with some reverse looping and good effects (available from Dr. Brad Kaufman, xxxxxx), and ALTEREDRUMS is a modified drum kit that uses a big reverb and some low-pass filtering. The MODWHEEL gives it just enough motion to imitate Frankenstein's heartbeat when played with velocity and MODWHEEL motion on the second beat (1 2 / 1 2). While making my list, I noted a couple of other things, like if I wanted to use a particular note (E flat for the heartbeat) and what the sounds were supposed to emulate. (STEELDRUM & SURF does a great imitation of bats when you play high notes staccato with PATCH SELECT \*o.)

Now that you've got your sound palette selected, it's time to actually do the work. Before I did any of the synthesizer tracks, I decided to do some live sounds to add to the realism of the sound track. I got a good omnidirectional dynamic microphone, plugged it into my mixer, and ran the signal through my Alesis Midiverb. You'll want to try out the various effects, but I discovered that LARGE HALLS and LARGE ROOMS worked best for the type of overall sound we were going for. This is no time to be shy about the effects, either. Crank them up as much as possible just short of unmanageable distortion. I also used my control room speakers to monitor although this probably isn't something you'd want to do when recording music, I found that the sound that leaked back into the mic from the speakers created some additional usable effects.

Now, for the live sounds. Every haunted house has to have rattling chains (put them in a metal pail for better sound), screams, banging doors, footsteps (on the stairs works best), animal noises (our dog wouldn't cooperate), and someone to do the always popular "Dracula laugh" — wha-haa-haaaa-Haaaaaa-HAAAAAAA!!!!, as well as groans, moans, shrieks, and whatever else cranks up your adrenaline. (This live recording can be pretty tiring for your family, so try to get it done early in the process, and don't worry about little mistakes. They'll sound fine in the mix. If you have children, have them help. They'll come up with stuff you'd never dream of.)

We recorded the vocal (live) track first, using a four-track on double speed, so we produced about twenty-two minutes of the above sounds on track #1. Later that night I listened to the track and tried the sounds listed above to see what went well. As I found things I like, I set up PRESETS of three sounds each. (I didn't actually set up permanent PRESETS, instead I chose my three patches, then went into PATCH SELECT or KEY ZONE or some other "operation" page that let me display the three chosen voices.) Since these were mostly "big" voices, and since precision and harmony were not prime con-

siderations, I was able to do two or three voices at a time with my right hand while controlling modulators with my left hand and feet.

I repeated this process on each of the remaining three tracks, building as I went, making certain that the sounds I used fit well with the live sounds we had already recorded. I wasn't real concerned with volume levels at this point, I just made sure that there was enough sound getting on the tape, and that there was no clipping. After I completed the three "instrumental" tracks, I listened to the whole twenty-two minutes and decided where and what changes needed to be made before mixing to a stereo cassette. If a passage was too dense, I cut the volume on one or two tracks while re-recording. If a part was too thin, I added some big reverb, or some EQ on the bottom to beef it up. I also learned a lot more about the use of my Midiverb because I frequently changed effects in mid-track to change the feel of the sound. Since I wanted a solid hour of these sounds, I went through the entire twenty-two minute four-track tape almost three complete times, changing volume and individual track effects each time to keep it from being too repetitive.

That's one of the things I really enjoy about doing a project like this direct-to-tape — you can make it up as you go along. To do this, though, a good deal of preparation is necessary, and keep that pencil and paper handy for notes as you go along.

For those of you who don't have a four-track, I'm sure you can easily re-create my results by simply sequencing your synthesizer sounds and THEN doing the live sounds and screams and stuff, going directly to tape with the sequencer playing while you "perform" live into the microphone. You'll need to watch volume levels and effects a bit more closely, but it's certainly do-able.

This kind of project can give you some good insight into what your equipment can do, and help you look at things with a different perspective. Most of all, though, it's fun. ■



*Bio: Joe Travo is Manager, Sales Training and Development for Wausau Insurance in Wausau, Wisconsin and a part-time musician and arranger. Although he enjoys living in the Midwest with his wife and six-year-old daughter, he misses his Los Angeles-based band, "The Four Seizures." He also misses his father, who recently passed away.*



# How Sounds Work

## Part II: SQ-1=B-3<sup>2.5</sup>

Mark Clifton

Hope most of you caught my articles, "SQ-1=B-3" and "SQ-1=B-3<sup>2</sup>," a few months back, in which I explained how to create monstrous, man-killing Hammond B-3 organ sounds. As a little follow-up, I now present to you two SQ-1 patches that illustrate some of the techniques that I covered in those articles.

The first one, from Volume I of my Latter Sounds, "*Hardwire*," collection (I love plug-ops), is B-3 4 (distinguished by its creative title). This particular patch displays most of the elements that make up a good Hammond organ sound. Oscillator 1 covers the main body of the sound. It uses the "Organ Variation 2" waveform, which simulates drawbar setting 888000000, a popular setting widely used in comping and rock music. The pitch vibrato provided by the LFO has been tweaked to taste for this particular sound. The AMP envelope is set to full attack and sustain with a short release time to provide a pop on key-up with simulates key click. There's no velocity sensitivity programmed since this feature is absent on the B-3. All of the programming on this patch is pretty bare-bones, and should serve as a template for your B-3 sounds. Fancy programming and extensive modulation routings can quickly kill a good organ sound, so keep it simple.

Oscillator 2 provides a key click on the attack by taking the "Noise Loop" wave and giving it an extremely short envelope time so that only a small pop is heard. I like to use this wave because it gives the key click a slightly gritty sound, but virtually any percussive waveform will work. If tuned up a few octaves, most percussion waveforms, from Claves to "Synth Snare" sound pretty much alike and will all work just as well. I gave this voice a low priority since it's one of the more subtle aspects of the sound, and shouldn't eat up polyphony since it would probably be covered up in a dense arrangement anyway.

Oscillator 3 gives a key percussion sound on the "Second" setting, that is, tuned to the fundamental, and with a short decay time. Oscillators 1 and 3 are both delayed a few milliseconds to simulate the fact that the sound doesn't kick in until the key click has decayed. This lag in attack time is a subtle but important element in the overall B-3 sound. Combined, all three voices yield a very popular and widely used sound.

The second patch is "Additive B-3" from the same volume of the collection. This patch constructs a B-3 sound the authen-

tic way, with sine waves. With the modwheel in the down position, it plays drawbar setting 888800000, but in the up position it shifts the tuning of oscillator 2 up an octave to yield setting 808880000 for a more jazzy feel. Oscillator 1 simulates the 16' (sub-octave) drawbar with a sine wave tuned down one octave. Oscillator 2 simulates the 5-1/3' (5th) drawbar with a sine wave tuned up a fifth. Oscillator 3 uses the "1+2 Harmonics" wave, which is two sine waves playing in unison an octave apart, to cover both the 8' (unison) and 4' (octave) drawbars. To create the ever-so-popular 888000000 drawbar setting, replace the "1+2 Harmonics" wave with "Sine." Key click and percussion are absent from this patch because of a lack of oscillators to accommodate them, but you can create separate patches for these effects and layer them together as a preset with "Additive B-3." There is a delay programmed into the sound, though, mainly for authenticity and convenience when layering.

And now another cool tip before I go. To simulate realtime drawbar control through MIDI, create a string of patches that each use a single separate sine wave to simulate a drawbar frequency. Assemble the patches into a preset and assign each track its own MIDI channel. Then, layer them together and use an external controller such as a MIDI fader (like the LexiconMRC) or the data sliders on a controller keyboard to modulate the volume of each track through MIDI controller #7. That way, you can bring certain drawbar frequencies in and out by moving the sliders as if you were pulling drawbars on a B-3.

Well, enough B-3 fun for now. We don't want anybody to hurt themselves, do we? I'll be back in the next month or so to explain how to get the most out of your 16-bit piano waves (you did upgrade, didn't you?). ■

*Bio: Mark Clifton is a player and composer of Jazz, New Age, Orchestral and Rap (yes, Rap!) music and an aspiring Cyberpunk writer who also wouldn't mind going into sound design or film scoring. His favorite color is the infinite, star-speckled blackness of space.*



## SQ-1/2 & KS-32 Prog: Additive B-3

By: Mark Clifton

Notes: The modwheel changes drawbar setting. The modpedal controls Leslie.

WAVE	1	2	3
Select Voice	On	On	On
Wave Class	Waveform	Waveform	Waveform
Wave	Sine	Sine	1+2 Harm
Delay Time	009	008	010
Wave Direction	-	-	-
Start Index	-	-	-
MODSCR	-	-	-
MODAMT	-	-	-
Restrk Decay	00	00	00

PITCH	1	2	3
Octave	-1	+0	+00
Semitone	+00	+07	+00
Fine	-02	+03	+00
ENV1	+00	+00	+00
LFO	+03	+03	+03
MODSCR	Off	Wheel	Off
MODAMT	-	+62	-
KBD Pch Track	On	On	On
Glide	Off	Off	Off
Glide Time	00	00	00

LFO	1	2	3
LFO Speed	32	32	32
Noise Rate	86	86	86
Level	24	24	24
Delay	00	00	00
MODSRC	Off	Off	Off
Wave	Sine	Sine	Sine
Restart	Off	Off	Off

FILTER	1	2	3
Filter 1	3Lo	3Lo	3Lo
Filter 2	1Lo	1Lo	1Lo
FC1 Cutoff	127	127	127
ENV 2	+00	+00	+00
FC1 KBD	+00	+00	+00
MODSCR	Off	Off	Off
MODAMT	-	-	-
FC2 Cutoff	127	127	127
ENV2	+00	+00	+00
FC2 KBD	+00	+00	+00
FC1MOD-FC2	Off	Off	Off

AMP	1	2	3
Initial	99	99	99
Peak	99	99	99
Break	99	99	99
Sustain	99	99	99
Attack	00	00	00
Decay 1	00	00	00
Decay 2	00	00	00
Release	00	00	00
Vel-Level	00	00	00
Vel-Attack	00	00	00
Vel Curve	Linear	Linear	Linear
Mode	Normal	Normal	Normal
KBD Track	+00	+00	+00

OUTPUT	1	2	3
VOL	80	80	80
Boost	Off	Off	Off
MODSRC	Off	Off	Off
MODAMT	-	-	-
KBD Scale	+00	+00	+00
Key Range	C2 C7	C2 C7	C2 C7
Output Bus	FX1	FX1	FX1
Priority	Med	Med	Med
Pan	+00	+00	+00
Vel window	>000	>000	>000

### EFFECTS — ROTERY SPEAKER & VERB

FX-1	15	Fast Speed	99
FX-2	25	Roter Center	50
Decay Time	14	Roter Depth	26
HF Damping	40	Speed Mode	Switch
Slow Speed	10	MODSRC	Modped

## SQ-1/2 & KS-32 Prog: B-3 4

By: Mark Clifton

Notes: The modwheel controls Leslie.

WAVE	1	2	3
Select Voice	On	On	On
Wave Class	Waveform	Inharm	Waveform
Wave	Org Var 2	Noiseloop	Sine
Delay Time	009	000	010
Wave Direction	-	-	-
Start Index	-	-	-
MODSCR	-	-	-
MODAMT	-	-	-
Restrk Decay	00	00	00

PITCH	1	2	3
Octave	+00	+2	+1
Semitone	+00	+00	+00
Fine	+00	+00	+10
ENV1	+00	+00	+00
LFO	+04	+00	+00
MODSCR	Off	Off	Off
MODAMT	-	-	-
KBD Pch Track	On	On	On
Glide	Off	Off	Off
Glide Time	00	00	00

LFO	1	2	3
LFO Speed	38		
Noise Rate	00		
Level	12		
Delay	00		
MODSRC	Off		
Wave	Sine		
Restart	Off		

FILTER	1	2	3
Filter 1	3Lo	3Lo	2Lo
Filter 2	1Lo	1Hi	2Hi
FC1 Cutoff	127	073	100
ENV 2	+00	+00	+00
FC1 KBD	+18	+00	+00
MODSCR	Off	Off	Off
MODAMT	-	-	-
FC2 Cutoff	127	080	000
ENV2	+00	+00	+00
FC2 KBD	+03	+00	+00
FC1MOD-FC2	Off	Off	Off

AMP	1	2	3
Initial	99	99	99
Peak	99	00	99
Break	99	00	00
Sustain	99	00	00
Attack	00	01	00
Decay 1	00	00	36
Decay 2	00	00	00
Release	01	00	00
Vel-Level	00	00	00
Vel-Attack	00	00	00
Vel Curve	Linear	Linear	Linear
Mode	Normal	Normal	Normal
KBD Track	+00	+00	+00

OUTPUT	1	2	3
VOL	99	90	99
Boost	Off	On	Off
MODSRC	Off	Off	Off
MODAMT	-	-	-
KBD Scale	+00	+00	+00
Key Range	C2 C7	C2 C7	C2 C7
Output Bus	FX1	FX1	FX1
Priority	Med	Low	Med
Pan	+00	+00	+00
Vel window	>000	>000	>000

### EFFECTS — ROTERY SPEAKER & VERB

FX-1	14	Fast Speed	99
FX-2	25	Roter Center	50
Decay Time	14	Roter Depth	22
HF Damping	79	Speed Mode	Switch
Slow Speed	10	MODSRC	Modwheel



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# Along The Event Horizon

## Exploring the VFXsd and SD-1 Event Editor — Part I

*Robby Berman*

Anybody who wants to use their VFXsd or SD-1 sequencer to anywhere near its fullest potential has to eventually come to grips with its slightly frightening, fantastically helpful event editor. It's your key to opening up a great big microscopic new world.

In the sd/SD synths, access to the event editor is under a soft button labeled "Event List" — apt nomenclature, and here's why. Everything you record into your sequencer is called an event. When you play a key from the keyboard, that's an event. When you twiddle the mod wheel, that's an event, and so on — literally everything you do constitutes an event (and you didn't think it was such a big deal). An event editor is simply a place where all those events are listed on a screen for your perusal and manipulation, one track at a time.

Create a new sequence and, using STARBRASS from bank four of the factory ROMs, record a 4-bar track employing some mod wheel moves here and there. Once you've got that together, press the Track button in the Edit section on the face of your sd/SD. Press the soft button under "MORE" on the screen and then the button under "EVENT LIST."

Well, now, here we are. There's a fair amount of information in front of you, but it's really not overwhelming once you know how to break it down.

In the upper left-hand corner, you'll see `EVENT TYPE=ALL`. What this means is that the beast is ready to display for you absolutely all the events contained in the track. That can be a lot of stuff. To start with, it'll show keyboard keystrokes and momentary maneuvers like sustain pedal presses and patch select touches. More awesome to witness are the event streams left by things like pitch bend and mod wheel movements, key pressure and mixdown changes. These are called continuous controllers, referring to the fact that they're not on/off situations, but rather modulators that are gradually (or not so gradually) applied in degrees — such as when you move the mod wheel forward. The sequencer has to continuously record its progress from zero to wherever you want and then back, recording many stops along the way as individual events. Don't worry: You can set this segment of the screen, called the `EVENT-TYPE FILTER`, to filter out everything from the display that's not germane to a particular task. It doesn't remove anything from the track, just from view. For now, leave it as it is.

The area in the middle of the top line of the screen is the

`TIME` field and it tells you in bars, beats and MIDI clocks where the event currently displayed is located in the sequence (the event list for song tracks also tells you where you are in the song). You can use this portion of the display to jump to any spot in the sequence (or song) simply by pressing the soft button above it and using the data entry slider and increment/decrement buttons to dial in the bar and beat you want to visit. But ya don't have to do that now.

In the lower left-hand corner is the event number field. This is simple enough. This being an event list, the items on the list are numbered in the order that they occur (don't ask about simultaneous events, wise guy, I don't know how Ensoniq decides who gets which number in such circumstances). If you have no particular place to go in a sequence, or don't know where you're going, you can scroll through a track's events by incrementing this field one step at a time. You can scroll backward, too, if you're not sure you can believe what you just heard.

Speaking of which, the intelligibility of what you hear while event editing depends on what you have the `EVENT-TYPE FILTER` set to. If it's set to filter out everything but, for example, `SUS` events (sustain pedal moves) and you didn't put the pedal to the metal until bar 3, scrolling to the first `SUS` event will cause all the notes that were recorded up to bar 3 to be expectorated in one big, ugly harmonic loogie. If, on the other hand, the filter is set to `KEY`, all your keystrokes will go by in the right order and things will sound nearly musical, with everything arpeggiated like a music box rendering of what you've sequenced.

The middle of the bottom line shows the word `EVENT` followed by an `=` sign. This area shows you what type of event the current event number refers to, and its numerical value. Generally, `000` is all the way off and `127` is all the way on. If it's a key event or a key pressure event, you'll also see the relevant key number (`C4` is Middle C, for example). If you should travel to a location within your sequence from the `TIME` field, and there's nuthin' happening in that particular spot, you'll see `EVENT=***000`.

Unless and until you press the soft button under "EDIT," you haven't actually changed anything, you're just a voyeur in the world of data. That being the case, let's snoop around, shall we?

Underline the event number field by pressing the soft button



under it and scroll through your track's events using the increment button. What you'll see going by most often are key events. That lower middle field displays EVENT=KEY, then a key number corresponding to notes you played from the keyboard when you recorded your track and then a 3-digit number representing how much velocity you struck each note with. When you get to the spot where your mod wheel moves began, you'll see EVENT=MOD., followed by 3-digit numbers starting low and moving higher as the wheel was pushed forward (and lower as it was pulled back). Psychedelic. Note that any other controller moves you might have made when you recorded the track are now showing on the display as you scroll past them. A listing of the abbreviations for all of the event types can be found on pages 12-15 in both the VFXsd and the SD-1 Musician's Manuals.

Okay, that's about as much fun as we can have on this first event editor page. Before proceeding, let's first narrow our scope for the remainder of our expedition by changing the EVENT-TYPE FILTER to KEY by pressing the top left soft button and the decrement button once. This means that from now on we'll just be dealing with notes played on the keyboard and their velocities. We could have set the filter to any kind of event but this one's the most commonly used. Set the TIME field to 1.01.01 to get us to the top of the sequence.

We know darn well what happens when we press the soft button over "EXIT," so let's go right to the other option — "EDIT."

This button might as well be labeled "ACTION" because we are now where it is (at). Let's start with the familiar-looking lower left-hand part of the display (which closely resembles the lower middle area of the last screen). But there's a big difference — you can now change both note number and velocity values. If, for example, you played a solo and wish you'd started it on a B instead of an A, here's where you can change it. Underline the note number and play the B on the keyboard. Did you hit the note too hard or too softly when you recorded your track? Just underline the velocity number and tweak it up or down. Go ahead — change a note and its velocity — you'll have a chance to audition it before you keep it. Now press the button above "EXIT" twice and press PLAY NEW TRACK to hear what you've just done. Since we've got more exploring to do, press Stop/Continue and then select EDIT EVENTS on the screen. This allows us to do more event editing before coming all the way out of this mode and puts us back on the first EVENT LIST screen. Note that you can't move around in your sequence from the edit page we were just on — you can only do it from this one. Using the NUM field, scroll downward to the first key event. Press EDIT. Now you're back to page 2 and ready for more, yes, action.

There are other things you can do from this screen. Pressing

the button over "DELETE" makes the selected event go bye-bye. Pressing INSERT will plant an event of the same type that the EVENT-TYPE FILTER is set to (in this case, a key event) at the time you see on the display. You can edit its key number or velocity just as if it had been there all along. Try deleting a note, pressing EXIT and auditioning it — then press Stop/Continue and EDIT EVENTS. Set TIME to 1.01.01 and select EDIT to come back in. Now try inserting a note and audition it (pressing EXIT twice this time) the same way.

In the lower middle of the display you see the word "AT" followed by a bar/beat/clock position. This is our (and our note's) current location in the sequence. You can move the note somewhere else if you'd like. Simply press the middle bottom soft button and you'll be whisked to another screen where changing the time value will move your note to whatever time you set it to read. Set it to 1.02.01 to move it to beat 2. Press EXIT twice, PLAY NEW TRACK, Stop/Continue and EDIT EVENTS. Scroll down to the first key event and select EDIT.

Pressing DURATION from the second EVENT LIST screen takes us to the last page of tonight's event editing story, children. We've already discussed how to change where a note starts — how about having the ability to change where it ends? This page allows us two ways to accomplish this, depending on whether our noggins are half empty or half full. By pressing the soft button in the middle above the display and adjusting the bar/beat/clock values of END TIME, we can determine where we want our note to end. On the other hand by pressing the middle button underneath and altering the beat/clock values, we can indicate how long the note should last. Same difference really and changing either part of the screen updates the other. Set the upper field to 4.04.96 to get this first note to run the entire length of the sequence. Press EXIT twice to audition and this time you KEEP NEW or KEEP ORIGINAL and then go take a nap 'cuz we're done for now.

Oh, wait, finish reading this paragraph first. Part 1 of our event-filled trip has, of necessity, had to focus on the hows of event editing — next time we'll discuss the whys and whens. I promise we'll get to the fun part. Eventually, of course. ■



*Bio.: Robby Berman is a musician living in America's queasy mid-section. If his SD-1 doesn't get him, the coyotes surely will. His latest album is "Rings and Rings."*



# Review: SL-3 Vocals for EPSs/ASR-10

Tom Shear

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For: EPSs and ASR-10.

Product: SL-3 Sound Library, Vocals.

Price: \$39.95.

From: Ensoniq Corp., 155 Great Valley Parkway, Malvern, PA 19355.

Phone: (215) 647-3930 or contact your local Ensoniq dealer.

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One of the great things about sampling is that it opens doors that may have previously been closed to those of us who don't have Michael Jackson's recording budget. In the pre-sampling days, most of us would only have been able to dream of having a horn section backing our song, or all of that African percussion on our new dance track, or for that matter, sampled dog barks to drive the neighborhood canines nuts. The fact of the matter is, we do have sampling today, and what it allows us to do is fantastic. Let's say you're working on a new song and there's something missing from it. Your vocals sound okay, but it sure would be nice to have some backing vocals in there, wouldn't it? But, of course, you only have on track left and you never could sing harmonies very well... what to do? Well, one possible solution would be to buy Ensoniq's 5 disk set of 16-bit vocal sounds. Let's see what we have here...

## HUGE AHHS

Talk about an understatement! This sound weighs in at a hefty 3339 blocks which makes it much more suitable for studio work than live performance. This is basically, no shock, a big sounding vocal ahh sound. I found that if I played single notes, the loops were very noticeable, not in clicking or wobbly pitch, but in rather erratic, repeating volume changes. The problem wasn't as obvious when I played big chords, but one would think that one with the resources to sample a vocal ensemble would also have access to a visual editor that would allow volume smoothing or some similar remedy. Aside from this though, this is a great sound reminiscent of sounds from much higher-priced machines.

## ROCK-VOX 1 (1525 Blocks)

Another very nice sound. This gives two and a half octaves each of Oo's 'n' Ahh's. Again the samples are very clean and lush sounding, but loops are still audible on soloed notes. Careful arranging can help you get around this problem though. I was able to get some pretty nice a capella jazz tunes out of these sounds, which also reminded me of the lush backing vocals the Cars always used to use. My favorite part

of this sound, however, was the \*0 patch which crossfades the two sounds into OOOAHHH and AHHHOOO sounds. The effect is hard to describe, but it's very cool. It sounds like one of those unusual sounds you might hear in a movie sound track.

## ROCK-VOX-2 (1571 Blocks)

As the manual says, "A mirror image of ROCK-VOX-1. Only the vowels have been changed to protect their identity." This time the keyboard is split between an Aay and an Oh sound. Most comments regarding ROCK-VOX-1 apply here, including the cool \*0 patch select. A demo demonstrates both ROCK-VOXes together. I should comment that for the first time, I really enjoyed listening to the demo! It's a short piece with a blues-meets-quasi-classical sound to it (huh?).

## CHOIR-VOX (312 Blocks)

A low memory choir sound that is a dead ringer for the types of Fairlight vocal sounds new age-er Enya uses on her albums so much. This sound is much softer in tonality than the others. Again, that annoying loop problem is present, but I guess these sounds are really meant to be played in chords where the problem is not very noticeable...

## SIRENS (447 Blocks) and MONKS (370 Blocks)

Female and male variations on the breathy choir type sound. Both are very moody and pretty and are good all-purpose choir sounds. Again, Enya comes to mind.

## VOX-WAVE-1 (41 Blocks) and VOZ-WAVE-2 (39 Blocks)

These two sounds provide an example of what can be done creatively with vocal waves when you delve into those synthesis parameters. The first comes across as a hybrid of a human voice, an organ, and a harp. The second is a very interesting pad sound with a smooth, breathy sweep fading in. I'll definitely get a lot of use out of this.

So what's the word? Well, those looping problems really did get to me, but having sampled my own vocals before, I know what a painstaking (and in my case, painful...gotta spring for those singing lessons...) process it can be. Getting a good loop on such a complex sound is a trick. Overall, if you stick to playing chords you shouldn't be bothered by it. Of course



those 16 bits give the sounds a fantastic sounding sheen that may make you think you've accidentally traded your 16+ in for a Synclavier or Fairlight. Before I go, I'd also like to mention the helpful programming tips Ensoniq provide on the inside of every SL set box which tell non-programmers how to customize their sounds easily (how to make the sound darker, higher, change the range, etc.) This will be of great help to novices and should not go unrecognized.

If you do new age or soundtrack music, you're committing a crime by not owning these sounds. But probably just about



anyone who wants great sampled vocals and a high-tech sound should thoroughly enjoy these sounds. ■

*Bio: Tom Shear has had it up to his keister with the "Shear energy" jokes.*

## Redshift

— The Privatlabel Collection for the SQ-80

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Product: *The PrivatLabel Collection* — SQ-80 Sounds.

For: SQ-80 — disk or Galaxy format.

Price: \$32 — California residents add 8.25% sales tax.

From: Redshift Limited, 4804 Hollow Corner Rd, Ste. 126, Culver City, CA 90230. Phone: (310) 558-1656.

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*"120 handcrafted, seriously musical sounds...No effects, no filler, no buzzes or doinks."*

What's this? Another new SQ-80 voice collection? What year is this anyway? Have I timewarped back to '88? — am I actually in my mid-twenties? — do I still have most of my hair? Alas, no. It's 1993 and while the aging process rages on, the good news is that Redshift has made available to us SQ-80 aficionados a new voice collection to sink our long teeth into. Seems like this is happening more and more lately — I'm not sure why there's this apparent resurgence in SQ-80 programming but after years of dormancy, all I can say is "Bravo and what took so long?"

The *PrivatLabel Collection* is a well-packaged product that contains 3 volumes of 40 sounds with an informative and humorous guide to modulators and applications. Perhaps a few demo sequences would've been helpful but, even so, the manual is well-detailed so you shouldn't miss them too much.

The 3 banks themselves are not categorized in any particular order. They contain mostly synthesized sounds with a few imitative patches of organs, electric pianos, and analog synths mixed in.

No, you won't find a grand piano or drum kit or orchestral strings to replace your ASR-10 (huge sigh of relief from ASR

owners here) or a monster guitar patch to replace that ego-maniacal twit of a guitarist in your band (damn). What you will find are nicely crafted sounds that deal with the SQ-80's strongest suit, synthetic timbres.

Right off the bat, in a collection of this size I'm suspicious about how many of these sounds utilize the SQ-80 exclusive waveforms. Well, about three-fourths of them do and the ones that don't are creative enough that you don't care. On more than one occasion I was fooled by a sound that I thought couldn't possibly be made of entirely ESQ waves but, in fact, was. Kudos to the programmer, Sam Caraway — this demonstrates a commitment to quality programming.

As a general note, many of these sounds take a little time to develop, so judgement shouldn't be passed on them too quickly. Some envelopes require 15 or more seconds to fully cycle and reveal themselves entirely. And it does take a bit of effort to explore all the modulator possibilities (cv, mod wheel, pressure and velocity) in order to get the most out of the sound. But I found that the exploration itself was interesting and may provide an excellent tutorial for new programmers.

### Volume 1

The very first sound, HAMMERD, is an excellent example of the depth of creative programming involved here. From the name you might assume that this is supposed to be a hammered dulcimer patch. It's actually somewhat more than that. Yes, there's a metallic synth pluck attack but it also incorporates a voice wave to form a unique hybrid that works in multiple ranges and applications. Also, as in many other of these sounds, a sense of motion is generated via the mod-

*Michael Mooney*



ulators. The mod wheel, rather than act as a seasick vibrato, opens up the stereo imaging while aftertouch provides a slight detuning. Great stuff. Another standout in this volume is FLITTER, a light sustaining pad with a sample/hold LFO percolating in the background. It's deceptively simple but very effective. And check out LOREI, a lyrical airy synth best suited for melodic leads.

There really are too many interesting sounds to list them all in detail so I'm just going to highlight a few from the remaining banks.

## Volume 2

HWYSTAR — A very good distorted organ ala Jon Lord

AQUABEL — A shimmering synth bell

REDSUN — A sustaining analog synth with pressure opening the filter

KIRI and RAINY — Both excellent synth plucks

IO — A resonant synth with breathy sweep

## Volume 3

WALLS 2 — Another resonant synth pluck

MAITAI — Intended as a synth mallet drum but also works

well with chords as a unique detuned synth  
STARRY, MISTS, and MORNIN — Unique atmospheric  
type synths

As a reviewer, I'm hesitant to sound so unabashedly enthused about a particular collection. It might tend to call one's credibility into question. And while the *PrivatLabel Collection* does have a few minor flaws (the lack of demo sequences and a bit too many older analog emulations for my taste), there are so many interesting sounds here that I'll allow myself to beam enthusiastic approval. Given that each volume is under \$11, you've got yourself a heck of a value here.

I've paid far more for sounds that I've been far less impressed with. I don't think you can ask for much more than that. ■

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Korg: T-Series/01/WFD

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Would like to correspond with other EPS owners to trade sounds and work with the EPS. I can offer samples of Soviet analog synthesizers. Gints Stankevics, Bebru 2-2, Jekabpils, LV 5205, Latvia.

## SAMPLES

Wanted: samples for EPS-16 Plus & ASR-10 to add to Dennis Cooke Library. Original sounds only. Will pay \$! Send list to Dennis Cooke, 128 Greendale Cres., Kitchener, Ontario N2A-2R6, Canada.

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Sounds for sale for EPS-16 Plus by original owner: Keel Classic Synth Library, 20 disks, \$60; Metra Sounds, all library, \$200. Package price negotiable. Yaroslav, 718-389-5054, 528 Leonard St. #3, Brooklyn NY 11222.

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house Sound, PO Box 18563, Boulder, CO 80308-8563.

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Wanted: Mirage VES software for IBM-PC compatible. Call Bruce, 503-244-9616.

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M.U.G. will provide Out-of-Print issues for cost of materials and postage. M.U.G. Hotline: 212-465-3430 or write: G-4 Productions, PO Box 615TH, Yonkers, NY 10703. Attn: TH Back Issues. Phone: (212) 465-3430.

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

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Prog: SQ RHODES

By: Mark Clifton

Notes: This is my own version of a Rhodes electric piano — and isn't meant to be an exact copy. The sound itself is pretty standard except that it fades into a soft choral pad. The mod

wheel moves it up an octave (61 notes just isn't enough) and the mod pedal controls the chorusing.

WAVE	1	2	3
Select Voice	On	On	On
Wave Class	Waveform	Waveform	Breath
Wave	DigPnoTneSine		VocEns
Delay Time	000	000	000
Wave Direction	-	-	Forward
Start Index	-	-	00
MODSCR	-	-	Off
MODAMT	-	-	-
Restrk Decay	20	20	20

LFO	1	2	3
LFO Speed			
Noise Rate			
Level			
Delay			
MODSRC			
Wave			
Restart			

AMP	1	2	3
Initial	95	91	84
Peak	99	77	69
Break	53	75	62
Sustain	00	00	00
Attack	00	04	68
Decay 1	56	50	49
Decay 2	51	70	32
Release	30	30	30
Vel-Level	33	19	33
Vel-Attack	13	00	00
Vel Curve	Convex	Convex	Convex
Mode	Normal	Normal	Normal
KBD Track	00	+56	+14

PITCH	1	2	3
Octave	-1	-1	-1
Semitone	00	00	00
Fine	-04	00	00
ENV1	00	00	00
LFO	00	00	00
MODSCR	Wheel	Wheel	Wheel
MODAMT	+62	+62	+62
KBD Pitch Track	On	On	On
Glide	Off	Off	Off
Glide Time	00	00	00

FILTER	1	2	3
Filter 1	3Lo	3Lo	2Lo
Filter 2	1Hi	1Lo	2Lo
FC1 Cutoff	085	127	127
ENV 2	00	00	00
FC1 KBD	+58	00	25
MODSCR	Veloc	Off	Off
MODAMT	+15	-	-
FC2 Cutoff	000	070	065
ENV2	00	00	00
FC2 KBD	+06	00	00
FC1MOD-FC2	On	On	On

OUTPUT	1	2	3
VOL	99	99	50
Boost	Off	Off	Off
MODSRC	Off	Off	Off
MODAMT	-	-	-
KBD Scale	00	00	00
Key Range	C2-C7	C2-C7	C2-C7
Output Bus	FX1	FX1	FX1
Priority	Med	Med	Med
Pan	00	-42	+42
Vel window	000	000	000

ENV1	1	2	3
Initial			
Peak			
Break			
Sustain			
Attack			
Decay 1			
Decay 2			
Release			
Vel-Level			
Vel-Attack			
Vel Curve			
Mode			
KBD Track			

ENV2	1	2	3
Initial			
Peak			
Break			
Sustain			
Attack			
Decay 1			
Decay 2			
Release			
Vel-Level			
Vel-Attack			
Vel Curve			
Mode			
KBD Track			

EFFECTS — CHORUS AND REVERB

FX-1	46	FX-2	16
Decay time	40	HF Damping	13
Chorus Rate	20	Chorus Depth	14
Chorus Center	50	Feedback	+12
Chorus Level	46	MOD (Dest)	Level
BY (MODSRC)	Ped	MODAMT	+99

**The Hack:** Another keyboard selection from Mark Clifton. This SQ Rhodes has a much brighter sound than many of the other Rhodes entries we've received. Couple that with the addition of a vocal pad and we're left with a patch probably best suited for New Age and soundtrack work.

But Voice 1 may seem too bright, obliterating Voices 2 and 3. Some adjustments to this patch's timbre and over-all balance seem warranted. Go to the Filter Section for Voice 1. Let the "tone" come from ENV2. Set FC1CUTOFF to 0 and raise ENV2 to +25. Then bring FC1KEYBOARD to +08 and set VELOC in motion by adjusting MODAMT to +35. Go to Voice 3's Pitch Section and give the VOC ENSEMBLE equal billing by changing the OCT to +0. Now it's time to even the Voice Balance. For Voice 1, in the Voice Output Section, change VOL to 88 with the BOOST set to Off. For Voice 2: VOL=72, BOOST=ON and for Voice

3: VOL=72 and BOOST=ON. If you would like Voice 3 to fade in a little slower, in the Voice 3 Amp Section change INITIAL to 08, PEAK to 99, ATTACK to 59 and DECAY1 to 99. (Sorry for all these changes, Mark, but mutilating a Rhodes patch is my second favorite thing to do.)



Jeffrey Rhoads

*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.*

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

**Pending Hacker-Requests:** VFX/SD-1 – A piano patch better than the standard "Classic Piano."  
 SQ-1 & 2/KS-32 – A "Harmon" muted trumpet sound, like the Miles Davis sound.



SQ-80 PROG: SYN 6

By: Charles R. Fischer

	OCT	SEMI	FINE	WAVE	MOD#1	DEPTH	MOD#2	DEPTH
OSC 1	-1	00	00	SQUARE	LFO1	+02	-	-
OSC 2	-1	00	00	PULSE	LFO1	+02	LFO2	+20
OSC 3	-1	00	02	SAW	LFO1	+01	-	-

	LEVEL	OUTPUT	MOD#1	DEPTH	MOD#2	DEPTH
DCA 1	47	ON	LFO2	-18	-	-
DCA 2	50	ON	LFO2	+18	-	-
DCA 3	52	ON	-	-	-	-

	FREQ	Q	KEYBD	MOD#1	DEPTH	MOD#2	DEPTH
FILTER	042	02	15	ENV3	+46	VEL	+13

	FINAL VOL	PAN	PAN MOD	DEPTH
DCA 4	57	08	LFO2	-35

	FREQ	RESET	HUMAN	WAV	L1	DELAY	L2	MOD
LFO 1	23	OFF	ON	TRI	00	00	21	WHEEL
LFO 2	06	OFF	OFF	TRI	63	63	63	-
LFO 3	02	OFF	OFF	TRI	63	00	20	-

	L1	L2	L3	LV	T1V	T1	T2	T3	T4	TK
ENV 1	-	-	-	-	-	-	-	-	-	-
ENV 2	-	-	-	-	-	-	-	-	-	-
ENV 3	+63	+00	+00	00L	00	00	12	45	04	00
ENV 4	+63	+63	+63	16L	00	00	32	32	10	00

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

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

## The Hack:

Syn 6 almost sounds like the Roland Juno-Series of synths, as it has an analog warmth without being too fat to blend in with other sounds in a mix.

Syncing DCOs 1 and 2 together produces a composite waveform with a hybrid digital/analog timbre, while DCO3 is detuned slightly for a chorusing effect. The filter and DCA envelopes (ENV 3 & 4) were deliberately kept simple to better emulate the characteristics of the Juno synths.

This patch sounds good with a little reverb added, and it works particularly well layered with other sounds — especially digital synths or samples.



*Bio: Charles R. Fischer works as a test technician for AKG Acoustics, Inc. He has written more than 70 articles on electronics and music technology for a variety of magazines, designs custom MIDI controllers, and has played keyboards and synthesizers professionally.*

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-Craig Anderton, TH review, April, '92

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# SD & VFX Hackerpatch

Sam Mims

## SD & VFX Prog: MEGA-SYNTH

By: Steve Munro, Guilderland Center, NY

**NOTES:** This is a collection of traditional analog synth sounds. The mod wheel controls the delay time of the effects. For an optional mono lead sound, on Voices 1 and 3, change GLIDE on the Pitch page to MONO.

**THE HACK:** Steve's patches remind me of the Oberheim analog synths. They are fat, punchy, and biting. The main patch select actually uses the mod wheel to close down the filter. On patches \*0 and 0\* the delay time is controlled by the wheel, which makes the sound bizarre if the wheel is moved while playing. Good or bad, depending on how you look at it. If you fall in the latter category, change MODSRC to \*OFF\* on the third Effects page, and MODSRC to

WAVES	1	2	3	4	5	6
Wave	Sawtooth	Resonant1	Sawtooth	Sawtooth	Pulse1X	Sawtooth
Delay	0	0	0	0	0	0
Start	-	0	-	-	0	-
MODSRC	-	Mixer	-	-	Mixer	-
MODAMT	-	+99	-	-	+99	-

MOD MIXER	1	2	3	4	5	6
SRC-1	Env1	*Off*	Env1	*Off*	Env1	*Off*
SRC-2	Press	Env1	Press	Press	LFO	Press
SRC-2 Scale	8.0	1.5	8.0	8.0	8.0	8.0
SRC-2 Shape	Smoother	Smoother	Smoother	Smoother	Smoother	Smoother

PITCH	1	2	3	4	5	6
Octave	0	-1	0	-1	-1	-1
Semitone	0	0	0	0	0	0
Fine	-11	0	0	-2	+5	+8
Pitch Table	System	System	System	System	System	System

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

FILTER 1	1	2	3	4	5	6
Mode	2LP	2LP	2LP	2LP	2LP	2LP
Cutoff	100	127	100	0	100	0
KBD	+35	0	+35	+35	+35	+35
MODSRC	*Off*	Wheel	*Off*	Wheel	Wheel	Wheel
MODAMT	0	-99	0	-60	-50	-60
ENV2	0	0	0	+99	0	+99

FILTER 2	1	2	3	4	5	6
Mode	2HP	2LP	2HP	2HP	2HP	2HP
Cutoff	0	127	0	0	0	0
KBD	0	0	0	0	0	0
MODSRC	*Off*	Wheel	*Off*	Wheel	Wheel	Wheel
MODAMT	0	-99	0	+60	+50	+60
ENV2	0	0	0	0	0	0

OUTPUT	1	2	3	4	5	6
VOL	99	99	99	99	99	99
MODSRC	*Off*	*Off*	*Off*	*Off*	*Off*	*Off*
MODAMT	0	0	0	0	0	0
KBD Scale	0	0	0	0	0	0
LO/Hi Key	A0/C8	A0/C8	A0/C8	A0/C8	A0/C8	A0/C8
Dest Bus	FX1	FX2	FX1	FX2	FX2	FX2
Pan	38	50	63	35	50	60
MODSRC	Mixer	*Off*	Mixer	Env1	Noise	Env1
MODAMT	+20	0	-20	+28	+20	-25
Pre-Gain	Off	Off	Off	Off	Off	Off
Voice Prior	Low	Low	Medium	High	High	High
Vel Thresh	0	0	0	0	0	0

LFO	1	2	3	4	5	6
Rate	35	35	35	32	35	32
MODSRC	Press	Press	Press	Press	Press	Press
MODAMT	+7	+7	+7	+12	+7	+12
Level	0	0	0	0	0	0
MODSRC	Mixer	Press	Mixer	Mixer	Press	Mixer
Delay	0	0	0	62	66	62
Waveshape	Triangle	Triangle	Triangle	Triangle	Triangle	Triangle
Restart	Off	Off	Off	Off	Off	Off
Noise SRC RT	-	-	-	-	0	-

WHEEL on the first LFO page of Voices 1, 2, 3, and 6. This adds a mod wheel vibrato; crank down the LFO RATE on these voices if it is too fast. Changing Voices 1 and 3 to a mono portamento sound is nice, but the attack was a bit slow for lead work. Snug up the ATTACK time (second Env 3 page) on these voices to 07 or so, and see if that works for you. You might also raise the INITIAL value a bit. — Sam Mims

Sam Mims is currently touring with Malaysian vocalist Zainal Abidin. He lives in Houston, where he runs Syntaur Productions, a music production company that also markets sounds for Ensoniq keyboards.

### SELECT VOICE

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

ENV1	1	2	3	4	5	6
Initial	0	0	0	0	0	0
Peak	40	99	40	99	99	99
Break 1	40	0	40	0	99	0
Break 2	40	99	40	99	99	99
Sustain	40	0	40	0	99	0
Attack	77	50	77	50	20	50
Decay 1	50	50	50	50	45	50
Decay 2	40	50	40	50	45	50
Decay 3	40	50	40	50	45	50
Release	16	0	16	0	45	0
KBD Track	0	0	0	0	0	0
Vel Curve	Cnvx1	Cnvx2	Cnvx1	Cnvx2	Cnvx2	Cnvx2
Mode	Norm	Repeat	Norm	Repeat	Norm	Repeat
Vel-Level	0	0	0	0	0	0
Vel-Attack	0	0	0	0	10	0

ENV2	1	2	3	4	5	6
Initial				99	99	99
Peak				99	99	99
Break 1				75	75	75
Break 2				75	75	75
Sustain				83	83	83
Attack				0	0	0
Decay 1				45	45	45
Decay 2				52	52	52
Decay 3				70	70	70
Release				30	30	30
KBD Track				28	28	28
Vel Curve				Cnvx1	Cnvx1	Cnvx1
Mode				Norm	Norm	Norm
Vel-Level				18	18	18
Vel-Attack				0	0	0

ENV3	1	2	3	4	5	6
Initial	50	99	50	50	99	50
Peak	99	99	99	99	99	99
Break 1	99	99	99	99	99	99
Break 2	99	99	99	97	99	97
Sustain	99	99	99	95	99	95
Attack	22	0	22	22	22	22
Decay 1	20	20	20	20	20	20
Decay 2	20	20	20	46	20	46
Decay 3	20	20	20	44	20	44
Release	30	25	30	30	42	30
KBD Track	0	0	0	0	0	0
Vel Curve	Cnvx1	Linear	Cnvx1	Cnvx1	Cnvx1	Cnvx1
Mode	Norm	Norm	Norm	Norm	Norm	Norm
Vel-Level	25	10	25	25	25	25
Vel-Attack	25	0	25	25	25	25

### PGM CONTROL

Pitch Table	Off
Bend Range	2
Delay	x1
Restrike	0
Glide Time	8

### EFFECTS (1)

Effect	Delay & Reverb2
Decay	62
FX1 Mix	30
FX2 Mix	52

### EFFECTS (3)

MODSRC	Modwheel
HF Cut	Off

### EFFECTS (2)

Delay Time	156
Regeneration	+40
Delay Mod	+99
Regen Mod	+15
Mix	33

### PERFORMANCE

Timbre	0
Release	0
Pressure	Key



# 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, 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.

Yo Hacker,

Every month I when I look at the Interface, I see that it says "Letter writers are asked to please keep the vitriol to a minimum." Being illiterate, I had no idea what this meant. So I looked up "vitriol" in my dictionary and it says this:

"1. A sulfate of various metals in its crystallized form., esp. of copper (blue vitriol  $\text{CuSO}_4\cdot 5\text{H}_2\text{O}$ ), iron (green vitriol or copper as  $\text{FeSO}_4\cdot 7\text{H}_2\text{O}$ ), zinc (white vitriol  $\text{ZnSO}_4\cdot 7\text{H}_2\text{O}$ ); - from the glassy appearance of many of these salts. 2. Hence, anything likened to vitriol as being caustic; figuratively, virulence. 3. To dip in dilute sulfuric acid; pickle."

Will you guys stop using goldurn freakin' words that I can't understand!

Sincerely your reader,  
Kirk Slinkard  
Lakewood, CO

[TH - Aren't you the same guy who recently said something similar about our little logo?]

[CS - Alright, Kirk. From now on, we won't use the word "vitriol" anymore. In its place all writers are asked to substitute the word, "Slinkard," as in "Please keep the Slinkard to a minimum." And a note to my editor: Our logo isn't all that little. Besides, it's not the size that counts - it's the Slinkard.]

[Ensoniq - We are also concerned about your reader's safety. If you are going to be vitriolic (Slinkardic) please be sure there is adequate ventilation!]

---

Dear Hacker,  
Subj: Basement et al.

Thanks to Jay Armstrong for the outstanding essay on the "basement" (TH #90 Interface). I feel much relieved of my

self-consciousness for not being attracted to "hearing loss, a record deal, genital herpes," etc.

I wish to offer an expression of sympathy to Don Suite and an acknowledgement of his expressing what, doubtless, all of us have felt at one time or another (the obsolescence of the EPS+, TH #90 Interface). Also, I'd like to acknowledge TH, Clark, and Ensoniq for their thoughtful answers. We all get to pay our dues for progress...and thank goodness we all enjoy the opportunities for progress (and to support the deserving folks at Ensoniq without whom our lives would be less rich!)

Finally, I noticed O.S. 1.3 for the EPS+ has emerged. Can anyone comment in summary on what it does differently and/or better than 1.1?

Temporarily moved by feelings of gratitude,  
Richard Rawson  
Sacramento, CA

[TH - Actually, we thought we (TH) were a little terse in our response - but then we were in cranky moods at the time...]

[CS - You, cranky? How could you tell?]

[Ensoniq - O.S. version 1.3 features these major additions:

1) The ability to load Banks via MIDI program changes when in Multi and Mono modes.

2) Copy/Backup/Restore functions for SCSI devices.

3) A new effects algorithm compliments of WaveBoy Industries.]

---

TH,

I have been patiently working on an EPS

piano for about a month, copying wave parameters, samples, etc. The only problem I'm having is that I can't get the notes to sustain the right amount. I want the note to sustain less as I go up the scale from C2 to C7. I've tried keyboard scaling and adjusting sustain times. Could you please go over a method I might use to accomplish this.

Thanks,  
Don Suite  
Salt Lake City, UT

[CS - This can be a confusing one, particularly because keyboard scaling won't do what you might expect when you apply it globally to an instrument or layer in the EPS-16 Plus. The problem is that when you have multiple samples in a sound, as you would with a piano, keyboard scaling will be applied equally to each sample. In other words, say you have two samples split on the keyboard. You adjust an envelope that causes each sample to take 2 seconds to decay. If you apply keyboard scaling at the instrument or layer level and adjust so that the low key of the lower sample takes 4 seconds to decay, and the high sample takes 1 second to decay, you'll find that the sample occupying the upper ranges of the keyboard reflects the same timings - its lowest note will take 4 seconds to decay and its highest note will take 1 second. This can be a particular problem at the split point, where the highest note of the low sample decays for 1 second, and the note a half-step higher (the lowest note of the second sample) takes four seconds to decay.

What you need to do to get the kind of scaling you're looking for is to set up your basic envelope, and apply keyboard scaling globally to the layer or the instrument. Then, play the lowest sample, making sure to listen to the lowest and highest notes contained in that sample. Adjust the keyboard scaling until you are satisfied with the sound. Now play the highest note of this sample and the lowest note of the next



sample up the keyboard – play them simultaneously, and listen to the envelope decay rates. You'll probably find that the higher sample takes longer to decay than the low one. Do not adjust the keyboard scaling! Adjust the envelope time parameters instead, lowering them until the two adjacent notes from the low and high samples are decaying at the same rate. You may even want the higher pitched of the two notes to decay a bit quicker. Continue this process for all adjacent pairs of samples on the keyboard – when you're done, you should have a pretty good approximation of what you're after. From there, it's a simple thing to make any minor tweaks that are called for. Just remember – the key is to set up the keyboard scaling globally, and use the envelopes for the individual samples to compensate for the rough spots.]

---

Dear Transoniq Hacker,

Please clarify. Is the Ensoniq ASR-10 able to perform, upon arriving new from the factory, all the functions of an EPS-16+ outfitted with Waveboy's Parallel Effects disk and/or Waveboy's Audio Effects disk which were reviewed by Craig Anderton in TH Issues # 82 and 90?

If the factory ASR-10 is NOT able to perform the Waveboy features will Waveboy manufacture a disk for the ASR-10?

Jerry Ray  
Washington, MO

[CS – I'd be glad to. As far as the processing of external signals, yes. The ASR-10 handles this quite well – and in stereo (the EPS-16 Plus is used for mono-in effects processing with the Waveboy software). The Waveboy Audio Effects disk does provide some effect algorithms that aren't included in the ASR-10, but take heart – Waveboy is preparing to announce a version of their Audio Effects disk for the ASR-10. There may even be press release to that effect in this month's issue of TH.]

[Ensoniq – We'd also like to clarify the fact that the ASR-10 was built to be able to process external audio through the ef-

fects, and the EPS-16 PLUS was not. WaveBoy (that crafty guy) has been able to wring that function out of the EPS-16 PLUS, but the ASR-10 has better input aliasing filtering and other hardware that will guarantee better signal fidelity when processing external audio than the EPS-16 PLUS can offer.]

---

TH,

Where's a good place to find extensive sound cards (RAM) for the the SQ-1+ and cartridges and disk sounds for the VFX-SD?

Thank you,  
Thomas Bonds  
Cambridge, MA

[CS – The best place should be your local dealer, but I realize that not all dealers stock a complete inventory of sounds for the instruments that they carry. You can contact Ensoniq for a catalog of all sounds available for any machine – write to them at 155 Great Valley Parkway, Malvern, PA 19355, or call (215) 647-3930. Also, reviews in back issues of TH should give you some good ideas on who to contact for third-party sounds.

[Ensoniq – Ensoniq currently offers 8 sound cards for the SQ-1 PLUS (that's 960 sounds!). The models are SC-1 through 6 and ISC-1 and 2.

The VFX-SD has 8 cartridges (that's 480 sounds) and 7 disks (with a total of 930 sounds!). The models are VPC-100 – 105, IPC-1 and 2, VSD-1000 – 1004, and ISD-3 and 4. They are available through your local Authorized Ensoniq dealer or directly from Ensoniq. To find the dealer nearest you, or to order direct call 1-800-553-5151.]

---

Dear Hacker Interface,

I purchased an SQ-R Plus a few months ago. Unfortunately I got the 21-voice version, only to find out that a 32-voice version was available at the same price about a month later! And the upgrade is too expensive to even consider. :-(

But enough grovelling – I have a couple of problems with my SQ-R+ which I hope you can help me with.

1. I have a MIDI setup including an Amiga computer which I use partly as a sequencer, partly as a MIDI filtering/distribution device. Whenever I play on my master keyboard (a Roland Juno-2), the MIDI data goes into my computer and back out on some other MIDI channel of my choice. This all works fine with all of the synths in my setup and all other synths that I've ever had, but the SQ-R+ acts weird when I do this. Notes hang and I have to double-press the System button to release them. But this only happens when the SQ-R+ is in Multi Mode – NOT if I put it to Omni mode to just select a single sound to play on. Why? It's very annoying when I'm trying to compose new pieces! I've tried most of the parameters in the System section without any luck.

2. I sometimes want my SQ-R+ to play two sounds simultaneously, given a note only on one MIDI channel. For example, for my solo instrument, I use MIDI channel 4 and I wish to use an instrument which consists of Burning Sax and Wailing Synth (or whatever). On all the other multitimbral synths I've ever had, this has been easy – I've simply used the same MIDI receive channel for two of the "parts" in the preset. But this doesn't seem to work on the SQ-R+ as only the first of the two parts using the same MIDI receive channel reacts to the MIDI data.

Help me. Oh Hackers of those bits and bytes!

Finally, are there any third party developers of (relatively cheap) sounds for the SQ-R+?

Absolutely finally, thanks for a nice mag, although there should be more SQ material and less EPS-16 stuff.

Hack on,  
Bjorn A Lynne  
Out of Norway, Scandinavia

[CS – I've no clue as to what might be your trouble when using your SQ-R Plus



with the Amiga – it shouldn't work any differently than any other MIDI slave. I'd suggest you get in touch with Ensoniq Customer Service (215-647-3930); they can help you to qualify the problem, and track down a solution.

As far as your other question goes, I'd recommend you investigate the SQ-R's preset mode. You can store a hundred presets in the SQ-R, each of which can remember any combination of up to eight internal and external sounds, each with its own volume, pan, output bus, key range, transpose, MIDI channel, MIDI program, MIDI status, pressure type, sustain pedal, timbre, and release time parameters. Presets can be recalled by sending a single program change on one MIDI channel. The SQ-R can even be used to re-transmit the MIDI data you send it, allowing you to turn your keyboard into a way-hip controller.

Finally, yes, there are third-party developers for SQ-series sounds. Consult the ads and reviews in this and other

magazines to locate them.]

[TH – Third-party folks we know that are currently supporting the SQ are: Latter Sound Productions, 904-675-5561; Eye & I Productions, 408-945-0139; and Sound Source Unlimited, 1-800-877-4778. If there are any others, they should contact us!]

[Ensoniq – Since you are far away I suggest you fax us your number so we can help you better. Our fax number is 215-647-8908. Please send us the O.S. version of your SQ-R PLUS as well so we can better help you. You can find the O.S. by pressing SYSTEM, holding it and pressing BANK SELECT. The current O.S. is 1.15. If you can be reached by fax please give us that number as well.]

Dear Interface,

This is the first (and hopefully last) time I've read someone's letter and immediately jumped to write two cents worth of

reply. I read Don Suite's letter in the December issue which told of his anger toward Ensoniq for producing the ASR-10 and discontinuing the EPS-16+. Oh please, get a grip. I couldn't believe what I was reading. Many compliments go to the counterpoints stated by Clark, Ensoniq and TH. I'm sure you were biting your tongues and holding back many "choice" comments.

The fact that Ensoniq did crank out the ASR is a plus for everybody, including those who have a '16+ (like me). Because it has upgrades to 16 megs is proof alone that they (Ensoniq) listen to user feedback. The 50 effects show a different type of feather in the cap. Since I've been reading the Hacker, I've never heard anyone complain about the amount of effects in the '16+. Waveboy was a cool idea by a third party to help "supercharge" the sampler and get more out of what was there originally. Ensoniq shows that they are hip to the third party scene as well and without direct prodding by the consumer, they made major improve-

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ments in this part of the machine as well. Nobody was raising hell about the effects – they didn't have to add more.

Thank you Ensoniq for doing what the US auto manufacturers don't.

I will be watching what strange and interesting comments will be aimed at the performance and performance features of the ASR-10. Who knows, maybe in two years the market will change and an ASR will be old hat. If Ensoniq keeps the customer input as part of their decision making (like it was with the ASR-10), Don and I will be first in line to check it out. Until then, I'm smug and happy with my '16+!

Paul Bissell  
Go Fish Music  
Ruston, LA

---

Hi Hackerfolks,

Quick story for you guys. My ESQ-1 dinosaur synth quit. Just when I needed it most, with gigs coming up and me needing the bucks, it uttered no sounds. What to do??

Called Tom McCaffrey (Transoniq Net) looking for help and he says, "Try Ensoniq customer service." Yeah sure, Tom, the place that sells all those cool KS-32s and SD-1s and ASR-10s is really gonna give a \_\_\_\_ about my beloved ESQ-1. Oh well. So next morning I called and the next morning after that they had the whole shebang in their lap via overnight air freight.

Well, it seems like they do care, even about my old warrior. Moral of the story – it left the factory barely five days after they got it – it works great once again, they barely charged me for the repairs and a certain guy named Bert Neikirk put up with a lot of my stupidly nervous phone calls. I mean, you gotta realize, here's my synth a few hundred miles away and I'm going through ESQ withdrawal and he's very reassuring and, well, what can I say?

They bent over backward to take care of me and I REALLY, REALLY thank you guys for that kind of service. Maybe some

of you would like to get your Roland equipment repaired – try sending it to Japan via overnight air freight some time...

Sincerely,  
Glenn Metzl  
Madison Heights, VA

*[CS – You know, sometimes with all the Slinkard that a column like this can generate, you forget that the majority of Ensoniq users are people who have had positive experiences in their dealings with the company and its products. Thanks for writing.]*

*[Ensoniq – Thanks for the kind comments. We're forwarding your letter to Bert's mom!]*

---

Dear Assorted Hackers:

First of all, hi there! I've got an SQ-1 Plus with the 32-voice expansion upgrade and an SQX-70 sequencer expander. Not only does the thing sound good, but now it holds 58,000 notes! What more could a synthesist/performer ask for?

I also have an SQ-80. I save all of my SQ-1 files on SQ-80 disks via Sysex dump. But hey, guess what – the SQ-1 holds sooooo many notes now, I can't even make a dump because the SQ-80's memory isn't big enough to handle the thing! I've never had a problem like this before with my HR-16. Should I trim down my SQ-1? Like Captain Kirk said once, "Too much of *anything*... isn't necessarily a good thing." Are there any expanders for the SQ-80's sequencer out there? Will buying a 32k RAM card solve the problem? Isn't it bizarre for such a popular and extent MIDI system to not have any means whereby one may save sequencer information? Any help you can give will be greatly appreciated.

Also, as a request, would somebody out there, preferably someone who has had experience, please write an article or two on how to put together one's own business in the area of selling samples, sounds, jingles, music in general, and so on? I think it would be helpful to hear

about what one has to go through in the areas of advertising, production, taxes, copyrights, tradenames and so forth – the honest basics. If there are other sources which already deal with this kind of info, could someone please lead me in the proper direction?

Thank you all,  
Jack Stephen Tolin  
Quincy, Mass.

*[TH – Although we don't like to stray too far from our "Ensoniq-only" coverage, there does seem to be a high level of interest (judging from the response to "Basement Tapes" for one thing) in making money by making music. To that end, we've asked Jeffrey Fisher, author of How To Make Big Money Scoring Soundtracks, and Garth Hjelte, of Rubber Chicken fame, to each put together a few small articles covering their respective areas of expertise.]*

*[CS – The SQ-1 allocates memory dynamically for its sequences, so you should be able to save sequences that aren't too jammed with notes. Try saving files of varying sizes (you can check total memory used by the SQ sequencer by hitting the Edit Sequences button, then the Bank 1 button, then the Screen 6 button. This parameter will display the percentage of available sequencer memory. Subtract this number from 100% to find out how much memory your sequences are using. With a little experimentation, you should be able to determine how much sequencer memory is the maximum you can dump into your SQ-80.)*

*[Ensoniq – The SQ-80 has a 64k byte buffer which is about 25% of the memory in an expanded SQ-1. The best way to deal with your SQ-80 as a storage device is to try not to save all the memory at once, but to save individual files. When you choose to save via MIDI Sysex you are given the option of saving the current Seq/Song or all memory. By saving Seq/Songs individually you should be able to work with your SQ-80.*

*Another choice is to use a device like the Alesis DataDisk or Peavey DataStreamer, which spool data to a disk, or to use a*



computer with any sequencer or program that records MIDI Sysex data.]

Dear Hacker,

I have been using the EPS-16 with Turbo for the past ten months or so and have been experiencing a few problems.

Sometimes during an instrument or bank save (or occasionally other commands), my EPS-16 will simply "lock up" on me making it impossible to complete the save or to get out of the page. Consequently, the only thing to do when this happens is to turn off the EPS and start from scratch again. Needless to say, all data (with the exception of my Flashbank memory) is lost. Is this an inherent problem of the EPS-16 PLUS or am I alone? This can be quite frustrating as you can imagine. What's the deal?

Also, after quantizing, my tracks will still sound ever so slightly out of time, especially when I am reaching maximum polyphony. Is it possible that too many instruments are competing for downbeats or something? This is driving me crazy — forcing me to cut back on polyphony in a vain attempt to correct the problem. Incidentally (and ironically), I sold my Korg M-1 a few years ago because of the very same problem.

On-board sequencers always seemed a great idea, but for me they fall short. Am I just getting lemons or have other workstation users experienced these problems?

Sincerely,  
Albert Weisman  
New York, NY

[CS — The problems you describe are definitely not normal; I don't recall ever experiencing anything like them on an EPS-16 Plus. Contact your local service center or get in touch with Ensoniq Customer Service.]

Dear Hacker,

Okay, so I didn't get my much desired sample playback box for my EPS-16+ from Ensoniq for Christmas.

Well then, how about making a fully loaded SD-1 with SCSI, 2 meg sample RAM expandable to 16 meg with standard SIMMs and capable of directly reading EPS disks? (Watch out, SD-1 owners — your turn for "Trade Up Trauma" may be next.)

I refuse to dump my still useful EPS-16+ for the pittance it is now worth in the marketplace just to upgrade to an ASR-10. Talk about overnight depreciation. I could, however, be moved to buy another new synthesizer that had at least 8 meg sample RAM capability and the ability to access EPS/ASR sound data via 1.44 meg floppy and over SCSI. The Kurzweil K2000 comes very close except it can't read EPS/ASR disks. MIDI sample dump is painfully slow and I don't want to buy another hard disk.)

Yours truly,

Orion Engar — the guy who is looking for a cost effective solution to the limited voice/memory EPS-16+ — and no thank you, I don't fancy any more closed end sound modules.

Sardis, BC  
Canada

[CS — Put me down for one, too.]

Dear TH:

Let me add my voice to that of Keith Barnes in the January 1993 issue regarding a 76-note keyboard for the SD-1 or ASR-10. I presently still own an original EPS classic. I love this keyboard, but I really tire of running out of keys at either end of the keyboard. I was raised on an 88-note piano keyboard and really miss the freedom of 88 keys. 76 keys would be a real step in the right direction. Of course 88 keys would be the best.

Thanks for listening,  
Dennis Gurwell  
Burbank, CA

[CS — Well, you could always put two ASR-10s next to each other — that would give you 122 keys (but watch out for that middle octave — it's a killer). Actually, I agree — an ASR-10 with 76 or 88 piano-action keys would be pretty swell. Guess we'll just have to wait and see.]

## BACK ISSUES

Back issues are \$2.00 each. (Overseas: \$3 each.) Issues 1–30, 35–38, 67–72, and 82–84 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 got going with Number 35 (and also applies to the ASR-10). VFX coverage (which also applies to the SDs) got started in Number 48. The SQs got going in Number 63. (SQ articles also apply to the KS-32.) DP/4 coverage started in #88 (much of which also applies to the ASR-10). 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.

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ESQ	3.5	SD-1	4.10/4.10
ESQ-M	1.2	SD-1 32	4.10/4.10
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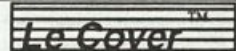
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Publisher: Eric Geislinger  
Editor: Jane Talisman

Our (somewhat regular) illustrious bevy of writers includes: Craig Anderton, Robby Berman, Barry Carson, Mark Clifton, Gary Dinsmore, Dennie Edwards, Rob Felner, Anthony Ferrara, Pat Finnigan, Charles R. Fischer, Gary Giebler, Jim Grote, Garth Hjelte, Bryce Inman, John Loffink, Alan MacIntosh, Daniel Mandel, Sam Mims, Gary Morrison, Michael Mortilla, William Pont, Jeffrey Rhoads, Brian Rost, Clark Salisbury, Tom Shear, Joe Slater, Kirk Slinkard, Bob Spencer, and Jack Tolin.

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Subscriptions: 12 monthly issues. US: \$23/year, All others: \$32/year. Payable in US funds.

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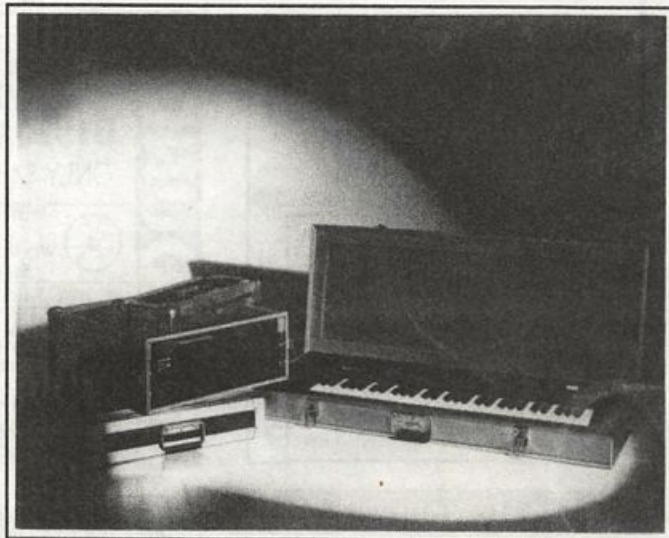
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