Transoniq Hacker

The Independent News Magazine for Ensoniq Users

SQ-X Steroids

Torqueing the SQ Series

Pat Finnigan

For: All SQ Variants (including SQ-R & KS-32), 21 or 32 voice.
Product: Syntaur SQ Set 1.
From: Syntaur Productions, 4241 W. Alabama #10, Houston, TX 77027.
Phone: (800) 334-1288, (713) 965-9041.
Price: $39.95 disk (Ensoniq disk-based formats & IBM w/MPU-401), $97.95 160-voice RAM card (80 SQ Set-1 patches, 80 blank locations).

I remember submitting my first *Hacker* article after typing (yeah, on a typewriter) three revisions. Hey, if you haven't noticed, everyone is deep into Ensoniq-lust these days; "Oooh, I gotta have the ASR-10 to digitally record our band, gotta have the TS-12 for all those weighted keys"; somebody give me a @#$%*&^ break! Ensoniq's real breakthrough product went by without a sneeze (the DP/4) because it wasn't a keyboard, and all of Malvern's previous product is now just another also-ran? Nuh-uh! Just another Ensoniq box to lust after.

Come on, these new products *do not* obsolete the rest of the product line in any way, shape or form. Ensoniq resale value is the highest in the industry; ask any salesperson, including your own (the music guy at my friendly Ensoniq-authorized music store just sold an old metal-case Mirage for $600, if that's any indication). It's just that I'm not ready to take out a second mortgage on the cows just to get this year's new milking machine: my old one hasn't quit yet. In fact, it's been doing just fine for the past four years. I could've had it upgraded to service 32 cows (instead of my 21-cow milker), but it wouldn't guarantee me any more milk out of my current herd, so I passed. Just the yearly ROM bug-fix upgrade. And to prove the validity of Ensoniq's R & D team, the third party market once again picks up the slack and comes to the rescue.

This month we review Sam Mims' SQ-1 Set 1 for all (that's an encompassing and total ALL) SQ and KS variants. And in a brief coupla words, mondo cool. This set turns your most basic SQ-1 21-voice (like mine with the old O.S. 1.0 ROMs re-installed to guarantee compatibility) or latest KS-32 into a virtual-sounding VFX. More on this as we go; let's get busy...

I received this review set on an IBM disk with a shareware sys-ex self-loader that ran without a hitch, even with the old sys-ex buggy version 1.0 ROM in my SQ-1. And there were other manufacturer's MIDI sysex code files for sys-exing (ooh, the things you can do with a willing computer) manufacturers files like Y, K, E, and R.

Rather than give a blow-by-blow of these sounds, this collection should be called

In this issue

Articles:

Putting the DP/4 to Work
Michael Harvey 9

Sampling Vintage Keyboards
Barry Carson 11

Key-Up the VFX
Dara Jones 18

Reviews:

Syntaur SQ Set 1
Pat Finnigan ..... cover

Basement Tapes: Petit Mal / Ted Ulle
Daniel Mandel 4

Samples from Rubber Chicken
Tom Shear 6

Samples from Tom Shear
Garth Hjelte 6

Watt Products Tempo Controller – SD/VFX
Garth Hjelte 13

Regular Stuff:

Random Notes 3
Hypersoniq 3
Classifieds 20

Hackerpatches
Charles Fischer & Jeffrey Rhoads 19

The Interface 21
Hacker Booteeq 31

the "SD-1 Set" or the "Wavestation Set," 'cause that's exactly what your beloved SQ is gonna sound like after you get these patches loaded. I'm not a big fan of the "Water Bell" school of nu-age pads, but these pads are *glorious,* with slow and random animation in the stereo field, actually more sonic depth and space than the SD-1 set. Go figure... Mod wheel wave fade-ins, real-time effects mod implementation, indeed, the "Curved Air" school of backing pads as organic breathing textures. No ticks and pops from slamming VCA down too quickly, no zipper noise from mod wheel effects modulation: very refined stuff here in the pad department. Hugely alive is the operative term here...

The "Flemish Harpsichord" is the first third-party harpsichord patch I've heard that accurately reproduces the release "plik" as the plectrum skips back over the string on key-up. Since the Flemish harpsichord sound is identified by the 8' and 4' coupler (unisons in octaves), I thought I'd edit the 4' out of the patch to make it sound more like my Baldwin Electric harpsichord. It didn't, so I shut the 8' oscillator off and played an octave lower; much better. Upon closer examination, the patch uses the original piano waveform set (not the enhanced piano waves) and a pretty constrictive envelope on the HP filter to arrive at this sound. Not only cool programming, but inventive. I tried a couple of the guitar waves, but it didn't transpose down the keyboard as gracefully as the original patch. Thoughtful and inventive.

"Bass Guitar" is probably as good a Fender J-Bass sound as you're gonna get out of the SQs. Rather than cross-switch from a thumb bass to a slap bass wave by velocity, the slap bass wave is added at harder velocities via an overlooked edit page (Bank 7, Screen 3, "Velocity Window"). So when you go spanking bass lines the entire bottom end doesn't fall out on you, like 98% of all the other "Slap Bass" patches out there. And it grunts just like a Fender, once you turn the reverb off. I'm gonna tweak on those waves and keep the envelopes just to see how much more Hartke aluminum-sounding I can get it.

The "Punchy Moog Bass" is a good Minimoog patch; with a longer decay 1 level tweak it became the definitive 16' and 8' Moog Bass patch. No reverb on the Moog Bass patches; no more edits necessary.

Of course, this wouldn't be an identifiable Mims collection without "THX Stereo and The Telephone" from the SD-1 set. Sounds just like its big brother. "Mellow ElPiano" is classic DX with the mod wheel doubling the modulation operator's fixed frequency (in FM-speak): sonically, the tine sound elevates an octave. "Phased Voices" reminds me of what a Korg Trident would sound like with Ensoniq modulation routings thru reverb; very nostalgic sound. "ModWheel Marimba" is the key up = key down school of programming: change the waves to "Acoustic Guitar" and you've got great mandolin for those Michael Corleone wedding gigs.

The negatives: I wasn't knocked out by the organs. "Mellow Bee-Three" is okay, but it's tough to top the Ensoniq Hammond emulations. Plus, I'm a bit of a sunnuva----- on organ sounds 'cause I play a B-3 and Leslie (that's my SQ-1 keyboard stand at the gig), and I'm starting to grimace at the split points of Ensoniq's excellent Joey deFrancesco disk set), so I'm probably hypercritical on that call. I didn't find any programs that used the data entry slider as a timbre modulator, or any programs that used the foot pedal as a modulator (unlike the SD/VFX sets), but with this breakthrough in sound I didn't even notice the oversight until the 3rd listening. Big wuuuu...

Since this set makes no use of the expansion waves in the 32-voice series the set sounds identical across all SQ platforms; it sounded the same in my 1991'ish SQ-1 as it did in my 1993 SQ-2 32. The only loss 21-voicers suffer as compared to the 32-voicers is polyphony (Eureka!) Then again, if we could play six oscillators at once, it wouldn't be called an SQ now, would it? This set, unlike the SD-1 set, is very responsive to tweaking, and even if left alone, is a striking collection, so it really offers the best of both worlds; grist for the mill and highly focused programming. Maybe that's because I know the SQ inside and out and still "navigate" around the SD; I think it's just because the SQ is easier to twiddle with cause it's half an SD/VFX. Many of the sounds are indeed three oscillators deep, especially the pads.

If you've got an IBM or compatible, the shareware Sysex loader is worth the $15 shareware fee just for the ability to handle Y, E, K, and R files as well as SQ files. And yes, the other manufacturers' headers are there for both upload and download sessions with your other gear. The fact that it worked flawlessly first time knocked me out. I sysex to a Mac under Performer 4.2, and I've gotta fiddle with tempo for 20-30 minutes just to get a sysex track to successfully load (if anyone out there has an old 1.04 set of SQ ROMs, please call me: I've got a ton of sequences that won't load without them (the memory allocation bug)). So the sysex loader is mondo cool for you DOSers out there. .

And the sounds: did I mention the sounds? Worth the price just for the first ten pads alone — these are SD pads, not SQ pads, and they sound like SD pads. The homogeneity of the Ensoniq line is confirmed with these patches. Glorious ensemble sounds, airy and evocative, strong basses, trademark FX patches, credible organs, and an excellent harpsichord, this collection is a must have for any SQ owner (hey Ebenezer; obsolete this!). Sam can retire on this set (as if there's that many of us out there): well, maybe he can put a down payment on a new milking machine soon.

I'm not given to raving about sounds, but Ensoniq wouldn't have sold nearly as many VFXs or SDs if this set had been the SQ ROM set.

I received a beta-release of these, so the documentation isn't completed yet (Sam was overseas, gigging somewhere), so all I got was a patch sheet and a printout of the sysex readme file. Many of the sounds defy description (the "Nimbus" school of patch tagging), and it's more educational to learn these sounds experientially. It's certainly more useful to know these sounds by timbre and mood first, then pin the name on them for iden-

(Continued on page 4)

Front Panel

RND (♪♫♪)

Ensoniq News

Ensoniq adds General MIDI to the TS Series. A new upgrade (standard on all new TSs) now makes Ensoniq's TS Series fully General MIDI compatible for proper playback of sequences generated by computers and other General MIDI devices. The O.S. Version 2.5 GM upgrade provides 16-channel multi-timbral MIDI reception with all 128 GM sounds, including all eight GM and GS drum kits, permanently stored in ROM. The TS Series' General MIDI mode automatically sets up the instrument for 16-part reception as defined in the GM spec. In this mode, all other functions of the TS are disabled, making it an easy-to-use sound source for receiving GM data. O.S. Version 2.5 GM ROM chips are available to current TS owners through Authorized Ensoniq Repair Stations for $99.95. Price includes installation.

ASR-10 Version 2 is now shipping! All of Ensoniq's dealers have received a few copies and more are on the way. If you are on the warranty list Ensoniq will be contacting you later this month. And all ASR-10's shipped from Ensoniq now come standard with the new software.

Third-Party News

K. Thomas, sample vendor for all Ensoniq samplers, has a new mailing address: P.O. Box 23056, Stratford, ON N5A 7V8, Canada. (Same phone number as before, plus a new studio line: 519-273-7812.)

We'd like to welcome Taxi — *"The Independent A & R Vehicle"* to our bevy of advertisers.

Hacker News

"ERROR I#104 – REREAD" Coupla little corrections to our review of the Covert Video tape in last month's issue: First, the SoundFinder function *shouldn't* show up in the ASR — it's a TS function. Second, the "Ramtek" drive spotted in the video is actually a Dynatek. Also, the copy of the video sent for review was inadvertently a copy of a copy made on a home unit — production copies are professionally reproduced at a dubbing house. (Covert also reassures us that the flying O.S. disk was actually a specially trained stunt disk.)

We're at that awkward point in time where we're getting an increasing number of new subscribers who've purchased the TS-10 or TS-12 — and we're still just starting to get writers to cover them. Please be patient. It'll get here!

We're glad that the Interface is a very popular feature because we've got another record-breaking bunch of letters this month. Get out your magnifying glasses. (Last month was kinda skimpy — can't you folks try to coordinate things a little?)

HYPERSONIQ

NEW PRODUCTS

K. Thomas announces the release of new acoustic samples including: *Stereo Cellos, Concertinas* (squeeze boxes), *Lute* and *Orchestral Percussion* for the ASR-10, TS-10, '16-Plus, and EPS. For further information, contact: K. Thomas, P.O. Box 23056, Stratford, ON N5A-7V8, Canada. Phone: 519-271-7964.

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) 480-5988.

Sampling – The International Samplers Cooperative, 310-455-2653 or via MusoBBS, 818-884-6799.

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

VFX Sound Programming Questions – Dara Jones, Compuserve: 71055, 1113 or Midi-net & Fido-net. Local BBS: Nightfly, Dallas: 214-342-2286.

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

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

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

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

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

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

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

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

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

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

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

SQ-X Steroids *(Continued from page 2)*

tification purposes. In any case, Sam has just upped the resale for any SQ-series synth. He assured the set will be labeled and packaged with the usual Syntaur aplomb and requisite documentation.

The set is available in any Ensoniq disk format (any Ensoniq keyboard w/disk drive except the SQ-80). I've been telling readers for years the best data storage device for an SQ is an EPS Classic with at least a 2X (a 2X expander holds a full disk of sysex data, 1485 blocks). Plus, you get a poly-key pressure keyboard sampler in the process, so now's the perfect reason to bag one. A used one'll cost you about what you'd pay for a Datadisk (try playing a Datadisk sometime: ever hear one?).

With this set of sounds installed, the resale value of the SQ-Series of synths (especially the 21-voicers) rose markedly enough for you to stop and think "Do I really wanna sell this guy?" And that pretty much sums up the third-party philosophy: this particular set of sounds defines it. Great value for the 32-voice series, a mondo deal for the 21-voicers, and serious sounds for both camps.

Load this collection, stand back, and the SQ series steps out of the shadow of its flagship big brothers proclaiming its own identity. With *very* serious authority... ▬

Bio: Pat Finnigan is a service tech turned musician who writes secret messages in sequences on his EPSs.

HACKER BASEMENT TAPES — Daniel Mandel

Global Visions, Inward Fantasies

— Two Perspectives

Tape: *World Seizure.*
Artist: Petit Mal Ensemble.
Contact info: Gatmo Productions, P.O. Box 2321, Sebastopol, CA 95473.
Equipment & Players: Gary Knowlton: electric guitar, acoustic guitar, mandolin, lap steel, guitar synthesizer, Korg M-1, bass, shakers, Spring guiro & rainstick, Macintosh computer.
Richard Waters: EPS-16+, Korg M-1, saw, waterphones, water-guica, Spring guiro, rainstick, ocarinas, birdcalls, shakers and spring bowl.
Eric Pinkham: tablas, mrdangam, waterphone, waterdrum, conch shell, shakers.
Rudy Giscombe: alto saxophone with vocalizer via MIDI to Korg M-1.
Geoffry Baugher: bass. Christine Waters: vocals.
Darrell Devore: Korg M-1. Michael Knowlton: EPS-16+.
Cliff Zyskowski: Korg M-1.

This is quite an amazing tape. At least one track from *World Seizure* will be present if and when the "best of" the *Hacker Basement Tapes* volume arrives. As you can tell by wading through the list of unusual and interesting instruments, this may be unlike anything you've heard before. However, as more and more of us are exposed to world music this may be a journey into a wonderful world you've only briefly been exposed to.

This collection of songs, although fascinating, is not without problems. The single problem that runs throughout the recording of several (although not all) of these songs is the mix. Unfortunately, track one, *Jamaican Breakin'*, is the worst offender. The electronic keyboards which are not necessarily a melody or a lead are far too present in the mix. Behind the overwhelming presence of what is basically a bed of electronic keyboard arpeggios is a wonderful magical backdrop that is not quite drowned out. The electric guitar then takes over where the keyboard leaves off, and in the same pronounced vein. These instruments are more than obvious. They are played well and they add to the piece. However, as they are so strong in the mix, they detract from the overall enjoyment of all the instruments together. This also happens with the saw instrument on *Norwegian Wood*, the Lennon and McCartney standard that is done justice, except here again the interesting, unique instrument is just so loud as to be annoying. This single aspect of proper mix is what makes this otherwise fascinating collection of songs not as listenable as it otherwise could be. When the mix is right on the money, as it is in *For Those Who Swim*, the result is nothing short of excellent.

There are no drastic effects used, and the recording of the acoustic instruments is quite good. They are recognizable and well played. I found, for the most part, that I really enjoyed the all acoustic sequences the most. The mixtures with the electronic sounds were just odd enough to create interest, but not fascinating enough to hold it for a time. The exception to this is *Eu Y Brisas/Con Ritmo*, a fast paced fusion of all that Petit Mal has to offer.

The vocals are used for effect and mood and are scattered infrequently throughout, mostly in the background. *Eu Y Brisas/Con Ritmo* is a fascinating, fast, haunting piece that features some vocalizations in the background.

Blue Whale takes advantage of vocalizations and vocal pads at the same time. A beautiful duet slowly evolves and moans as the piece plays itself out.

In *Group Quotes* you can here the jazz, bluegrass and rock influences mix together with the world music/ethno-sounds that make Petit Mal truly unique.

Far and away, the most wonderful listenable jam on the cassette springs forth from *For Those Who Swim*. This is the song that would be placed on the *Hacker's Greatest* list.

$10 Includes cassette & shipping costs. Add state tax if ordering from California.

Tape: *Moonlight* .
Artist: Ted Ulle.
Contact info: 77 Hobson Street, Brighton, MA 02135.
Equipment: ESQ-1, Yamaha effects, Nakamichi tape deck.

Once again we return to *Switched On Bach* '90s style. Once again we see the power of Ensoniq synthesizers. Even the popular (I'd hate to call it "old") ESQ-1. What used to take a room-sized synthesizer and several tracks to capture each sound, is now realized with the touch of a button. This is what Ted has done with Moonlight.

The first track on side one, *[Moonlight] The Sonata* is actually an electronic keyboard arpeggio with a zither patch singing the melody and occasional bells for emphasis. This is, of course, THE *Moonlight Sonata* originally recorded by L. Beethoven and it is beautifully sad in Ted's hands. The zither *really* sounds played. It is an excellent patch, and although obviously too biting in its attack to be a violin, it is still acoustically alive and its presence cannot be denied.

This is followed by *Chorales*. Both complex and simple, they are beautiful. There are sounds reminiscent of harpsichords, but for the most part there is still an electronic feel. This does not subtract from the music.

There is one problem here. Side two, with titles such as *Songseeds, Haiku,* and *Grace* does not exist! Either this side was never taped, or it was mysteriously erased... Ted, you might want to look into this.

Given the missing side two, Ted has done some very good work in arranging his palette of sounds and in executing them.

And now a few words from Ted, "This tape was produced with no thought of commercial acceptability, rather it was a Christmas present for friends and family. Only the Moonlight Sonata is what I would consider a polished recording, the rest being experiments of one or another type, existing in sketch-pad condition. I had a ball!" ▬

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.

Get Your Music To The Right People.

The fact is, you won't get a deal if you can't get your tape solicited by a major label or publisher. We work with over fifty of them. Film & TV music supervisors too. You're curious but suspicious. So were hundreds of other songwriters, artists, bands, and composers who have become members. Now their tapes get to Atlantic, CBS/Sony, Elektra, Epic, Geffen, Island, MCA, Mercury, Motown, RCA, SBK and many more. Sounds too good to be true...until you find out how we do it. Then you'll wonder why nobody's ever done it before.

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TAXI

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Samples from Rubber Chicken

Tom Shear

For: TSs, ASR-10 and any other Ensoniq sampler capable of reading High-density disks (EPS and '16+ version available).
Products: Piano!, The ASR-10 Introductory Pak, The 01/W Series.
Price: $6.95, $49.95, & $49.95 respectively.
From: Rubber Chicken Software Co., PO Box 6056, Hollywood, FL 33081-0056. 1-800-8-PRO-EPS, 305-963-1783.

This month we'll be looking at a whole slew of what Rubber Chicken has to offer the ASR-10 world. These sounds will, of course, work on an EPS or '16+, but the HD disks these sets come on would be unreadable by the earlier machines, so simply ask Garth for info on the EPS equivalents of these sets. My deepest thanks to the ever-helpful Steve at Onondaga Music and Sound for providing the ASR-10 for this review. Keep up on those Genesis licks, Steve!

The first set is the much-hyped Rubber Chicken Piano! disk. I received versions for both the EPS-16+ and the ASR-10, but the EPS version would not load properly. Presumably, Garth would have provided replacement disks for the defective products, but I decided just to use the ASR-10 version since there should be little, if any, difference in the sounds.

This sound is BIG! We're talking 3161 blocks big, here! Obviously, this is more suited to studio than live work. So is the extra space worth it? Well, it all depends. The sound is extremely well done with no detectable loops and smooth multi-sampling. I didn't notice the "extra sustain" the brochure mentions, but did find this piano to be much warmer than any I had ever played. Also notable is that the sample only uses one layer, giving you greater polyphony than usual. You may, however, just as soon use the factory STEINWAY disk given its lighter weight. In an extremely brave policy, Rubber Chicken offers this sound as shareware. They send you the sound to try. If you like it, send them the $6.95 and play away. If not, send them the disk back and pay nothing.

The O1/W Series

The Korg O1/W is a wonderful ethereal synth that was un-

Well, here in the little, in-bred world of the Hacker *the lines between our writers and third-party vendors are sometimes a little fuzzy. So we figured, if we can't be distinct, let's at least be symmetrical. Be warned and make of this what you will. – Ed.*

Shear Samples

Garth Hjelte

Product: *Synth Samples*.
For: ASRs, TSs and EPS/16+.
From: Tom Shear, 255 Small Road, Syracuse, NY 13210.
Price: $15 for 3 disks, $3 shipping.

This month we're looking at Tom Shear's set of EPS/ASR samples of the Yamaha SY-77. Tom, as many of you know, is the cheeseball wizard frequently mentioned/pictured in these pages, and has made a hefty contribution to the Hacker community. But, as my Mom always said, "Let's see how you cut the cheese." We shall look at these samples and see how they fare for the price and value.

Tom makes several little sets of samples, of the following instruments: Minimoog ($12), Matrix 6, Prophet VS ($15), SQ-80 ($5), Roland D-5/TR-505 ($10), VFX, and the Korg O1/W ($20). Samples of other manufacturers' keyboards is a good idea for the consumer; you don't have to go out and go broke.

No matter what you think of the SY-77, the only criteria for this type of review are the sounds themselves. Are they clean — hot — versatile — playable — changeable — usable?

The Sounds

SY MALLETPAD (299 blocks) — Real smooth "coke bottle" sound. Uses three layers, but it's well worth it. Soft velocity produces a smooth sound, while hitting it hard brings out the chiff and shorts the release. Great programming. Mod wheel does just the same stock vibrato — actually, Tom didn't program the mod wheel on any of his sounds, so I'll leave it at that. That's a shame. The more "change-ability" and sound modification one can do to a sample, the better. That way the real hot chop musicians will have something to use, while in-

Shear Looks at Garth

fairly overlooked because of its big brother, the Wavestation. Rubber Chicken's set allows those of you who may have missed this beast the first time around to take a second listen.

What you get here are 33 of the O1/W's finest sounds re-created to near-perfection by the careful programmers at Rubber Chicken. Since many of these sounds are the swirling, wooshing, tinkling woodblock variety, this is no mean feat. Overall, however, the loops are invisible and the sound quality is beautiful. Every aspect of programming, from patch selects to effects, has been carefully tweaked to fit the sound. This is unusual in most third-party sets and should be commended. The result is some of the most playable sounds you can get for your sampler.

Almost all of the sounds are great, but here are a few personal faves. For basses (an instrument the 01/W is relatively weak at), the incredibly fat analog BowBowBass (336 blocks) reminded me of old Depeche Mode records. The harder-edged SeqBass (107 blocks) is reminiscent of the PPG 2.3 in all its hard, metallic glory. Organs are also evident in this set. Registars (374) is a beautiful church organ that had me playing Phillip Glass riffs for hours. DblManual (233) works nicely for a more classic rock/jazz sound. Even the medieval crowd gets the flutey reed organ of PositivAir (105) with its absolutely huge bottom end to satisfy them.

But what about the pads, Tom? Sure, this is where the O1/W shined and this set is no exception. Eternia (1565) is inspiring in its rising winds and chimes over a breathy pad. This would be right at home on a Kitaro album and should accordingly appeal to the new-agers out there. DawnOfTime (1047) is a meaner entry that sounds vaguely like an analog sync-effect times 10. These sounds fill a lot of sonic space and really move the air (if not some of your furniture!).

Other sounds include more acoustic emulations (Orch+Tymp, Octa Brass) and some sounds that seem like hybrids of synth and acoustic sounds (the breathy reediness of Delicato, the unusual flute tones of Tasian Winds). So is it perfect? Unfortunately, no.

Some sounds simply should not have been included. Slap Bass (183) sounds nothing like a slap bass and could have been replaced by something much more useful. GargleBass is an only slightly different-sounding variation on BowBowBass and hogs another 310 blocks worth of disk space. The other main problem is that they have occasionally converted sampling rates too low in an attempt to save space. I realize that some synths are inherently grainy-sounding, but the 01/W is not one of these synths. The middle range of Fresh Air is too grainy to use, in my opinion. Other sounds are very

Garth Looks at Shear

spiring the rest to greater expressiveness. Patch selects are nice; they take advantage of the three layer sound split, and add a nice mallet sound on XX.

SY NEWAGE (521 blocks) — Breathy choir sort of sound. Sounds good, but not unusual. The XX patch select is excellent (has a programmed rising sound effect to it) — it should be the OO patch.

SY SYNSTRA (635 blocks) — Interesting — combination choir, reverby tympani, and sharp bowed string. There's a lot going on — sounds good, but there could be more clarity. Soft playing gives you the tympani, while the harder you hit, it brings in the string. Then it's too much for my ears. This could benefit from additional programming. The patch selects simply divide the sounds.

SY ANABAS1 (99 blocks) — Good synthbass, lots of sawtooth fuzz. Good velocity feel, low memory. That's it, though. No patch selects and two layer polyphony (this could one been cut down to one layer by using a chorus effect — which he programmed, but he set both wavesamples/layers to DRY — ??). This sample could have really used multisampling — the lows and highs are out of range.

SY ANABAS2 (91 blocks) — Another nice bass sound, this time more full and deep. Patch selects are great on this one — he programmed a good sub-octave. This sound, as well, needs multisampling.

SY CINEMAST (809 blocks) — Nice, pretty sound! Choir, string, and (sort of) piano mix. Three layers, but the sound is worth it. Patch selects are simple, but interesting, in variation. Needs multisampling — perhaps the 809 blocks could be cut down.

SY PHANTOM (395 blocks) — meaning "Phantom of the Opera" organ. Nice sound on top — crying out for lows on the bottom. Multisampling could have saved the day, or even some compensating programming.

SY REEDBELL (309 blocks) — Best sound of the bunch — D-50ish style synth, with a sweet high string rising in as you hold down the key. Very clean, and very usable.

SY DAVEZBASS (148 blocks) — This is the best of the bass sounds — it has a suboctave that bites! The tone is hollow and deep — lots of low end. Patch selects are innovative.

SY ASSIMILAT (292 blocks) — When I first put in this sound, I thought, well, it's layered, it's an OK pad. Then I

Shear Looks at Garth

grainy in their low ends, cheapening an otherwise beautiful sound. Better choice of root keys or further multi-sampling could have avoided these pitfalls. My final complaint is with the LAYER DRUMS kit. First, it has been programmed so the filter is closed on light hits and opens with higher velocities. I understand this was probably used to emulate the way real drums sound brighter with harder strikes, but the result here is VERY artificial sounding. The choice of drum sounds included is questionable as well. No crash cymbal? Where are my toms?

The ASR-10 Introductory Pak

This great set lets the uninitiated give a listen to a little of everything Rubber Chicken has to offer. Underneath each of the 45 sounds is a small notation indicating which set the sound came from, which is extremely helpful. I'll go through each of the sets summarized here except for the O1/W entries which are simply repeats from the above set.

• ASR Ultimate Organs. Clean and beautiful variety of everything from the Doorsy GibsonBrite (162), to the mellow 88 8000 000A (237). Something to fit all your organ needs.

• SD Meets ASR. Included from this set is a dead-on reproduction of a Clav (277), a dreamy digital bell (Eternity — 483), and an interesting synth/piano stack called Brianna (336).

• ASR Renaissance and Medieval. Acoustic sounds from years gone by so nice to listen to, you have to wonder why most of these instruments aren't still used widely today. Favorites here included a great recorder with lots of breath (138), Medieval Harp (891), a crisp reproduction that'll have you searching for the vibrating strings inside your ASR, and ShortBouquin (314), a compelling sound that throughout its range sounds variously like a human voice and an oboe.

• ASR MicroWave. Not, as the name would imply, Waldorf Microwave samples, but sounds from the Korg Wavestation. If you've been lusting after the sounds on this incredible synth, here's a good place to start. Lots of movement and evolution with nary a loop glitch. CongaAir (244) combines a choir synth with a velocity-controlled conga attack. Entropy (781) defines the Wavestation sound with its evolving timbre and stratospheric ambience.

• ASR Plus Pak. A variety of different synths were used to produce sounds such as Wavemix (862) which I'd bet was produced on a Microwave, the unusual bite of GX Dreams (198), and BleachBass (103), a dead ringer for the slap bass sample used on the soundtrack for TV's *"Seinfeld."*

• ASR Original Chicken. The most poorly-represented set with only 3 entries: The grainy Mono-Poly (177), the power-

Garth Looks at Shear

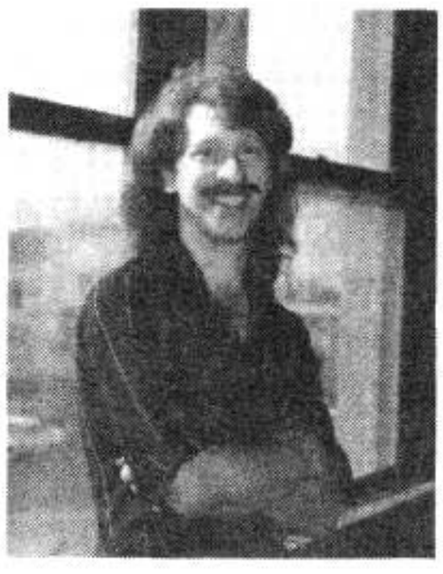
looked at the layers — four of them (that's a lot). The reason — the patch selects separate the sounds; OX is a tough stereo bass, XO is a hollow pad, and XX is a synth pad. All nice sounds on their own. Use the patch selects on this one.

SY METRO (784 blocks) — This one sounds like REED-BELL, but it's more choirish. Patch selects are good — there's more work done on this one, and you can tell.

SY ETHERHORN (331 blocks) — Three layers: long drawn out horn sound, rising sawtooth synth, and rolling synth effect. Sounds nice, and different from the rest. Patch selects simply separate the sounds, with no additional programming (sniff...)

Conclusions

For $15, this is a good set of sounds to represent the SY-77. Sounds like it, and argueably contains its best sounds. $15 is inexpensive, and you get what you pay for. The sounds are all sharply clean, and the looping is unnoticeable. Most of them play well and are responsive. But there's little programming or versatility, sometimes at the cost of a more defined sound or possible reduced polyphony. The sampling is excellent in this set — I just wish more work was put into them as far as programming. Tom knows what he's doing — these sounds are usable and good. I'd probably have a better preference for the other sets (Minimoog and Prophet VS, in particular), since those keyboards have unique sounds of their own, which depend less on additional programming. Also, this set will work (with modifications) with the original EPS. The sounds aren't heavily dependant on the effects (which is either a good or bad thing, depending on how you look at it). Final word: If you want just the sound of a SY-77, and you're low on funds, get this set — it'll do you well. ▬



Bio: Garth Hjelte is the owner of Rubber Chicken Software, a no-profit charity organization established to help sponsor the post office.

Shear Looks at Garth

ful Tympani (191), and a reasonably well done DoubleDulcimer (273).

This set also includes many of the problems cited in the above set (LayerDrums also appears here), but the most obvious of these is the graininess which is much more noticeable throughout this set. Whether these instances are due to the source instrument or the sample rate conversion is unclear, but it does hurt the quality of some of these sounds significantly.

Whew! I thought we'd never make it through that alive! In summary, from what I've heard, it's pretty hard to go wrong with Rubber Chicken. Like a real chicken, these sets have both dark meat (greasy, fat, and unsavory), and white meat (lighter, tastier, and not as messy). What type of meat you prefer will determine how useful these sounds are to you.

There are some flaws here and there, but the attention to detail and memory efficiency may make you forget them. My advice? Buy the Intro Pak and go from there. ▬

Bio: Short for "Biology," a subject Tom Shear did not exactly excel in in his high school years.

Putting the DP/4 to Work

Setting Up

Michael Harvey

In an industry addicted to new products, the *Transoniq Hacker* provides a unique forum in which to discuss established pieces of gear. In that spirit, this article kicks off covering day-to-day use of the DP/4 Parallel Effects Processor in home and project studios. We'll start basic but accelerate rapidly, examining each step in a typical recording project — tracking, mixing, mastering — and how the DP/4 delivers unprecedented ease-of-use and professional sound to engineers on a budget. Due to the power and flexibility of the DP/4, even small studios can be used to obtain completely professional results. Let's begin.

For discussion purposes, I'll assume a basic multitrack studio set-up with MIDI capabilities... and, of course, a DP/4. The goal of our hypothetical project is to record a high quality, pop/rock song demo suitable for submission to an A&R rep or inclusion on a self-published CD. The project could as easily be audio for video, a jingle, or a multimedia production.

We will use the DP/4 for two basic tasks during our recording project: as an effects processor and as a signal processor. Until now, at least two distinct pieces of gear would be required. The DP/4's flexible design, however, lets us actually use a single device for both chores simultaneously. To do so, we must first configure the DP/4 appropriately. Config presets on the DP/4 are very powerful: each defines a routing scheme, effect algorithms, and mixing setup for the entire DP/4. By changing Config presets, the DP/4 can morph — at the touch of a button — from a four-unit vocoder into four separate stereo reverbs. Since they are the key to tapping the full power of the DP/4, it is a good idea to get used to working directly with Config presets from the very start.

Your DP/4 ships from the factory with most of its Config presets disabled, a situation you will quickly want to rectify. With the DP/4 powered up, press the SYSTEM /MIDI button. Use the left/right cursor buttons to scroll to parameter #59. (Hint: The DP/4 provides many shortcuts to reduce needless scrolling through parameter pages. In this case, pressing the SYSTEM/MIDI button repeatedly cycles through groups of system parameters.) If you haven't reset this parameter yet, it will read: "Show 100 Config Presets=No." Use the data entry knob to change the parameter to "Yes." Press the SELECT button, then press the CONFIG button.

The jog wheel will now scroll through all 100 Config presets. Let's pick one that meets our requirements. Since we want to operate the DP/4 as two virtual devices (as both an effects processor and a signal processor), we will essentially split the DP/4 in two. Scroll to preset #52, "2 Src: Stereo In," and press the SELECT button. This Config is now loaded. In the LCD display you will see that there are no effect algorithms selected; each unit is "dry." Furthermore, since we selected a 2-source Config, the four units of the DP/4 are divided into two distinct groups: units A and B form one group, while units C and D form a second group. The processors within each group are connected in series, as indicated by the small arrows in the LCD display. The groups themselves, however, form two completely distinct signal paths. Finally, since we specified stereo sources when we selected our starting Config, input jacks 1 and 2 (on the rear panel of the DP/4) will feed the left and right inputs of group AB, while input jacks 3 and 4 will feed the inputs of group CD.

We've achieved our goal of splitting the DP/4 in two. We don't have to give up the advantages of owning a single box, however. The output path of the DP/4 will be determined by how we connect it to our system. The DP/4 actually senses

how many cords are patched into its output jacks. If we connect cables only to output jacks 1 and 2, then both pairs of stereo outputs (one from group AB, another from group CD) will be automatically and digitally mixed within the DP/4 to appear as a single stereo pair at output jacks 1 and 2. (This feature is very useful if you have limited mixer inputs or effect returns, for example.) If instead we connect cables to all four output jacks, the output of group AB will appear on output jacks 1 and 2 as a stereo pair, while the output of group CD will appear on output jacks 3 and 4 as a second stereo pair.

We will be tweaking this preset shortly; giving it a new name will help us keep track of our work. Since we will be giving the DP/4 a dual personality, let's call the patch "Schizoid." (The DP/4 owner's manual provides a straightforward explanation of how to name and store presets as well as retrieve factory patches. Don't overlook the handy shortcuts for avoiding unnecessary scrolling.) When you save the renamed preset, you will see the message "***Write OK***." "Schizoid" is now loaded as the active preset.

To use group AB as an effects processor and group CD as a signal processor, we must patch input/output jacks 1 and 2 on the DP/4 into our mixer's effects loop, and input/output jacks 3 and 4 into one of our mixer's insert points. (If your mixer does not provide insert points on its main buss or subgroups, simply patch a pair of your mixer's subgroup outputs (or even its main buss outputs) directly into input jacks 3 and 4 of the DP/4 and then patch output jacks 3 and 4 from the DP/4 into your multitrack. You can then monitor the processed signal via the tape returns from your multitrack. You must be very careful not to inadvertently create a feedback loop if you take this latter approach. Keep monitoring levels low until you're sure the patch is correct. However you end up completing this patch, the goal is the same: to put processing group CD in-line between your mixer and multitrack so that the DP/4 processes the entire signal before it reaches tape.)

There is one final housekeeping step to perform before recording: calibrating input and output levels. To obtain the best signal-to-noise ratio for recording, you must optimize the inevitable trade-off that occurs between the noise floor of your system and its available headroom (also known as distortion when you run out of it!). The optimal situation occurs when your system achieves a state known as "unity gain." In a nutshell, this means that an input signal of 0db remains a 0db signal as it passes through the various gain stages (EQ, master faders, DP/4 inputs and outputs) of your system when those gain stages are in a "neutral" position.

We will start calibrating levels with the DP/4's inputs and output levels set to zero (knobs fully counter clockwise). We will also leave all the DP/4 processing units set to "dry," eliminating any variance that might arise from the way the DP/4's effect algorithms themselves impact the source signal's level. First, we require an input signal. If you have a sequence ready, go ahead and play it. The demo sequences that come with many synthesizers will also work. Set the channel input trims and/or preamp gains on your mixer so that the input signal hovers around 0db on your mixer's channel meters with the channel faders in their 0db position. (You may need to adjust the output level at the sound module itself to achieve this.) Now, turn the aux send faders feeding inputs 1 and 2 of the DP/4 to their 0db setting (usually the 12 o-clock position). You are now ready to turn up the input knobs on the DP/4 itself. As you rotate input knobs 1 and 2 clockwise from their fully off positions, you should see the green input LED's on the DP/4 begin to flash, registering the input signal. Keep bringing up the level until the red clip LED's start flashing. Now, back off the level just a tiny bit. Your input signal is optimized when there are intermittent, momentary flashes of red. Sustained or frequent red flashes indicate clipping. If your levels are correctly set, you should find the optimal position for the DP/4's input knobs somewhere around the 12 o-clock position. If this is not the case, check all the gain stages prior to the DP/4 until you find the culprit(s).

We can follow a similar procedure for the DP/4's output levels. Raise the level of the aux return fader being fed by the DP/4's outputs to it's 0db position. (Most mixer aux returns are set up as stereo pairs with a single level fader or knob.) Solo the aux returns on your mixer so that you hear only the signal coming from the DP/4. Now, rotate output knobs 1 and 2 on the DP/4 clockwise to raise its output level. You will begin hearing your source signal, dry since the DP/4 is not yet applying any effects algorithms. Stop increasing the DP/4's output level when the signal is again hovering around 0db on your mixer's meters. This will probably occur when the DP/4's output knobs are somewhere between the 12 and 3 o-clock positions.

If you wish, you can extrapolate from the procedures above to set the remaining input and output levels on the DP/4. The shortcut, of course, is to set knobs 3 and 4 in the same positions as knobs 1 and 2.

Congratulations, you have now optimized input and output levels in your system, at least as far as the DP/4 is concerned! Your system is now at unity gain, meaning that without further tweaking, a signal will leave your system the same as when it entered. This is, of course, a rather boring musical goal. In future articles, we will turn our attention to tweaking. Lots of tweaking! ▬

Bio: Michael Harvey earns his living as the Business Manager for Consumer Products for Microsoft Sweden. He spends his living on grown-up toys from Ensoniq and other companies in the military-industrial-musical complex.

Sampling Vintage Keyboards

Part I

Barry Carson

Vintage keyboard instruments are obviously hot. We've just begun to learn what guitar players have known for years — old electric instruments can make sounds that the latest technological wonders simply cannot create. '60s keyboards, like the old Wurlitzer electric pianos and Vox organs, are showing up on a lot of hit records these days, and they sound pretty darn good. The downside of all of this is the reality of using an actual thirty-year-(!)-old electronic keyboard in the studio or (saints preserve us) on the road. Not only are they heavy (70 to 100 pounds for many of them) and hard to move around, but they can be noisy, temperamental, prone to failure, difficult (if not impossible) to repair and just all-around cranky.

This brings us to the point of this series of articles. If modern technology can't create these great vintage sounds, it certainly can be used to recreate them. What I'm talking about is everyone's favorite pastime (I know it's mine) — digital sampling. Using a sampling instrument is just about the perfect way to get those great vintage sounds without having to break your back or learn Italian (so you can try to locate that replacement part for your Farfisa). If you have an ASR, EPS or Mirage, there is no reason to go out and buy E-mu's Vintage Keys module and no reason to lug a ton of antiquated gear around with you whenever you play.

In the first half of this series, we will talk about sampling some rock organ sounds from a Vox, Farfisa, Hammond or whatever you can get your hands on. Some of the topics we will explore will include: setting up short loops, multi-sampling, getting that great key-click attack without a lot of dead air at the beginning of a sample, use of layers and envelopes, using the built-in effects, sampling through the effects, and whatever else seems relevant at the moment. The second half of the series will deal with sampling the vintage electric pianos like the Wurlitzer, RMI, Hohner and Fender/Rhodes. Here we can begin to explore the use of envelopes in more depth, including the use of velocity and velocity switching between layers.

Let's get started.

The sound of the electronic organ has been a fixture in rock music for the past thirty years. Be it the heavy drone of Jon Lord's Hammond or the crisp, bright tone of Paul Revere's Vox, an organ sounds great in a rock band. Our first job is to find an organ that we can sample; I know there are a lot of combo organs and Hammonds in various states of disrepair sitting in the basements and garages of lots of keyboard players. Find one, borrow one, rent one. Unlike acoustic instruments, in which the state of the entire instrument affects the sound of a single note, a Farfisa with half its oscillators dead and the cabinet broken in pieces may still produce wonderful C and G notes, enough to create a great sounding multi-sample of the instrument as it would have sounded 25 years ago. If you absolutely can't find an authentic vintage instrument to sample, you could always rent an XB-2, Voce or Rhodes VK organ.

Once you've located an instrument, the next question is how to go about getting its sound into your sampler. Almost all combo organs will give you a 1/4"-out allowing you to sample directly. Keep in mind that you may have a hard time getting a proper level (unless you have an ASR). The EPS and Mirage give you a choice of Line or Mic inputs, and most combo organs seem to be somewhere in-between as they were designed to be played through guitar amps. You may need to go through a mixer of some kind or just go in at line level and normalize the gain (but watch for noise). Those of you who have found an old Hammond spinet may have no way to get a direct signal out at all, which brings us to the second option. You may want to (or have to) use a microphone to get the sound of the organ into the sampler. Aside from the necessity of using a mic on an organ without an output, many people especially like the sound of a combo organ through a tube powered guitar amp. Of course, using a mic brings up myriad concerns, such as mic placement, that go beyond the scope of this article. Sampling an organ played through a rotating Leslie speaker system is a complex art form unto itself which we may discuss at a later time; for now you might have better luck disengaging the rotors and sampling the straight sound.

Okay, at this point we have some kind of vintage organ and a way of getting its sound into the Ensoniq sampler of our choice. Next time, we start multi-sampling and setting loops. Be there or be square. ▬

Bio: Barry Carson has taught at the high school and college level, composed music for the stage and screen, written fiction, and sampled just about everything that makes sound. In his free time he enjoys reading comic books and eating canned chili.

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Somewhere in Time

Watt Products Tempo Controller for the VFX-sd/SD-1s

Garth Hjelte

Product: TC-100 Tempo Controller.
For: VFXs and SDs.
Price: $69.95, NJ residents add 7% sales tax.
From: Watt Products, PO Box 584, Bordentown, NJ 08585. Phone: (609) 298-4421.

Okay, it's quiz time! How many of you have tried to sequence a ritard? How many of you have tried to sequence a section of music that slowly builds in tempo? How many of you have tried to mess up a feel by separating sequences and putting slightly different tempo variations within them? All of you? That's what I thought.

These are all problems all of us that use the ESQ/SQ/EPS/ASR/VFX/SD sequencers have had to contend with. We never have been able to change tempo within a sequence — it always had to be done with the setting of the sequence. I know some people who got tired of this limitation (along with only having the 8 tracks of the EPS) and stepped up to PC/MAC sequencing. Was there ever going to be, perhaps, an OS upgrade that implemented this? We never saw one...until we read in our *Hackers* that Version 2.0 for the TS-10/12 had a variable Tempo Track. And so all of us OLD Ensoniq owners sat in the dungeons of our obsolete two-year-old music studios, with record company execs laughing at us, pointing fingers at our dreams...

But now, Watt Products has come up with an ingenious solution for the variable tempo problem — with their TC-100 Tempo Controller for the VFX-sd/SD-1 keyboards. (Note: There is a Tempo Controller for the EPS and EPS 16-Plus on its way... Watt says it should be ready sometime in the middle of February.) Its claims? Sacrifice one song or sequence track, one note of polyphony, and one aux output channel for the ability to change tempo within a song or a sequence. Mmmm...

I have to admit, that when I first saw the ad a couple months ago, I thought someone had finally broken/reverse engineered the VFX/EPS OS. (If that happens, my friends, we can go back to the Mirage again — alternate OS's, hardware/software tricks... those were the glory days!) That seemed to be the only way to accomplish a feat of tempo variation. I called Watt up immediately, and they said no, but they wished they did! (My little EPS heart was broken!) Actually, they had figured out a clever electronic workaround.

Note to Ensoniq: Since the hacking/musical computing public apparently doesn't possess the resources to crack your OS codes, why not go for some 3rd party help and license out the source code for specific hacking and applications? There are a couple things (not many, but a critical few) that would be immensely helpful to the thousands of Original EPS/16-Plus/VFX-sd/SD-1 users. Like BackUp/Restore for the Original EPS; more extensive Shift Tracks, variable quantization, and many other sequencer improvements for the 16-Plus and ASR-10, not to mention variable tempo and new effects algorithms for all the instruments (how about polyphonic glide, true sample+hold, and resonance for the filters, huh?). There've been letters into the Interface for this. Keep writing in, everybody!

Back to the business at hand.

The Unit and Its Installation

The Watt Products TC-100 comes with a small circuit board, with wires coming out of it and a small toggle switch, one floppy disk, an installation instruction manual, and a user's guide. Installation only requires basic soldering skills (you have to tack-solder seven points), and one drill-hole through the back of the VFX-sd/SD-1. Installation is simple, and takes a half-hour even when done slowly. Anybody can do it, even a beginner. The manual is well-written and easy to follow. My staff and I installed it with very few problems. Important note: Installation will void your warranty. But of course, most SD-1s and VFX-sds are out of warranty. Even so, this circuit is so simple that there's no way you could screw up anything unless you *really* try.

Our test unit was an fairly new Ensoniq SD-1 32 Voice. The circuit board screws into the back of the cartridge slot, sitting perpendicular, with barely enough clearance to pass by the keyboard (See Figure 1). Four wires solder into the data-entry buttons, two feed into the power supply, and the last taps into the left aux channel right before the output. Good construction and simple installation. We like this unit already! You do have to drill to install the on-off switch. Although they placed the location of this switch in a good spot (right by the outputs), unfor-

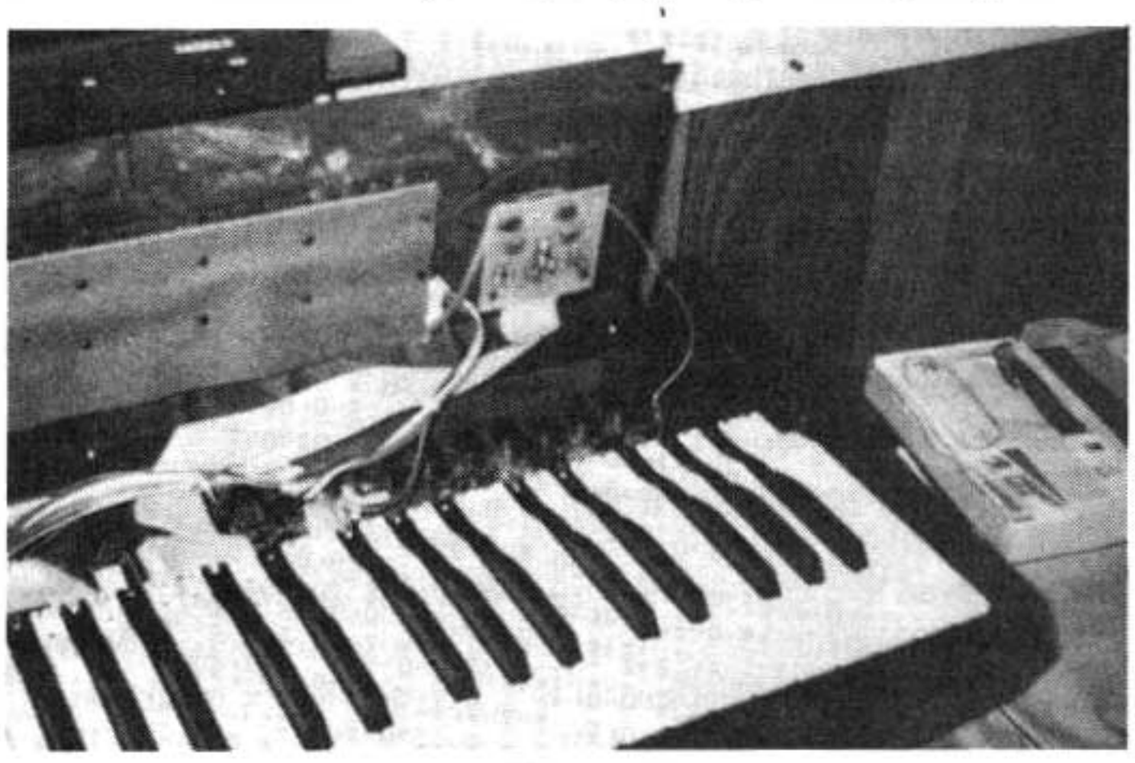

Figure 1

tunately, the plastic there is quite thick, and the toggle switch they provide you with is not long at all. They instruct you to drill a 1/4" hole, but the switch is about 1/8" to 5/32" in diameter, but the 1/4" hole is necessary so you can put the backnut through to provide clearance out front to screw in the front nut. When we got it snug, it fit nice and tight. Excellent job!

How It Works

Here's the genius behind the TC-100 (See Figure 2): Watt came up with a sound patch that's made up solely of a sine wave, and then routed it to the AUX outputs. Next, with their custom circuit board, they electronically tapped the left Aux output, and routed the signal to the circuit board which transforms the pitch of the sine wave to an electrical signal, which in turn they routed to the data-entry buttons, which closes their circuits when voltage is applied, simulating them being pressed. Wow! Why all this? Well, since you can't record tempo changes in the present VFX-sd/SD-1 operating system, you still can record key-events — and the Tempo Controller simply turns these notes into data-entry button presses — and when you have the display cursor under TEMPO, you're performing AUTOMATED TEMPO CHANGING! Simply record a track with the custom patch (called Tempo Trak), and hit F#5 (Watt's choice) to increase the tempo by one or A3 to decrease the tempo by one. Cool!

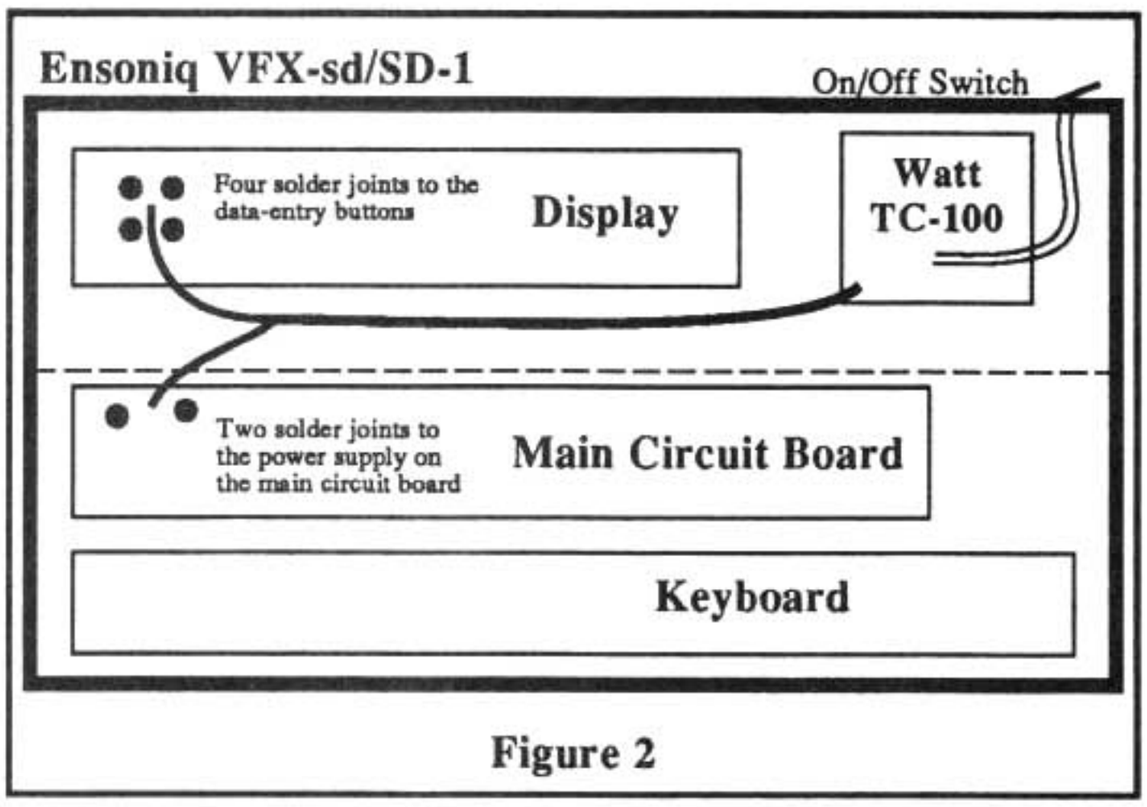

Figure 2

Unfortunately, since this is a electronic workaround, there are a couple of idiosyncrasies to deal with, the most important is that you must have the CLICK, SEQUENCE CONTROL, or LOCATE page selected with the cursor under the TEMPO parameter at all times. Otherwise the data-entry buttons change the wrong parameter! That's the only "limiting" part of the idea, as far as we were concerned.

The TC-100 In Operation

First, we tried to simply speed up and down the tempo on a Sequence. We recorded a simple 8-bars using the factory Warm Tines patch, and then recorded our Tempo Track track using the Tempo Trak instrument, and pressing the appropriate keyboard keys when we wanted to speed and slow things down. Sure enough, it worked perfectly — as the cursor was placed under the TEMPO indicator, the value started changing by itself. Although you can hold down a keyboard key, making the parameter whiz by, this isn't recommended. It made the operation a bit erratic.

But in doing all this, we found another idiosyncrasy: the tempo doesn't reset itself when the sequence loops or repeats itself. Of course, this is how the VFX-sd/SD-1 is set up in the first place, but it does determine how you best will use the unit, and in which situations it's usable.

We found in our next test, which was trying the Tempo Controller in a Song on a Song Track, that the TC-100 really shone and really is the normal place to use the unit. We had a song that needed a subtle slowdown after the intro, a gradual lift in speed during the dynamically-building break, and finally a rather sharp ritard at the end, where the song relaxed and ends. Perfect! just by a few key pushes, we could see the TEMPO fluctuating and the song felt more natural. Just like automated volume mixdowns work best on Song Tracks, it also seems that automated tempo-changing works best this way too.

A Trick

After some experience with the unit, we discovered a technique that made us feel more comfortable. One concern we had was that the unit wouldn't reset the tempo after the sequence loops or when it was placed in a Song. Personally, we felt somewhat out of control — we never knew where the tempo was set at! For example, on a VFX-sd/SD-1 sequence track, the tempo indicator shows the actual bpm. But on a Song, it shows +00, ranging from +99 to -99. (Sidenote: there's an undocumented feature with the Watt — you can create a negative tempo, causing you to go back in time! We plan on working with the unit a while more so we can relive our childhoods.) If you do a tempo variation within a sequence, and then you place the sequence into a Song, you'll find that its variations will change the +00 parameter as well — but you'll also find that the TEMPO doesn't reset itself to +00 when the next sequence comes. Now, here's the trick: On sequences that don't have tempo changes, play the increase note and the decrease note at the same time, simulating what you do with the data-entry buttons when you want to zero something out, at the beginning of the sequence. When you work with a sequence, that places the tempo at 138 (the default), which you probably don't want, so just turn the Watt off as you work with the sequence separately. But as you place it within a sequence, it resets the TEMPO back to +00, where we wanted it. This made us feel more in control of where the tempo was; more secure about working with the unit.

Documentation

The documentation was adequate-to-excellent with the unit, consisting of an installation manual and a "getting started" sheet, which has some pretty helpful hints on its use. They have

a "demo" on the disk they provide, but it's not really a demonstration. The whole thing could be better if they had a full-blown demonstration, along with a "super-manual" to guide the normal user into some normal applications.

Loose Ends

Like, what's the on-off switch for? Well, since the TC-100 occupies the left Aux output, turning it off will enable you to use that Aux output again. It's a shame that a valuable output channel had to be used. At least we're glad they provided a way to turn it off. You also must make sure you turn the Master Volume 80% to 100% full. Actually, you should be driving the VFX-sd/SD-1 at 100% all the time, anyway, to get the best sound, while using another master control to adjust overall volume (remember, the output fader is digital). And as you read earlier, the ability to turn the unit off is valuable because you may not always want to audition your tempo changes.

We couldn't resist fooling around with what you're not supposed to fool around with, so we tried to make the unit adjust something else besides tempo. We just had to put the cursor under another parameter. We tried Master Tune, Sequence Effects, Patch Selects, Transpose, Timbre, and others. Not a bad idea — very helpful when we just increased or decreased the value once or twice. The most successful experiment was when we used it on Pan — that was fun and musical. So it's useful for other applications besides tempo!

Conclusions

The TC-100 will provide a great way for you to automate tempo changes with a sequence and, more importantly, in your Songs. It's a cheat, to be sure, but it works, and works perfectly! The TC-100 will give you more mileage out of your SD. And besides tempo, this piece of hardware can do other things as well! Other than the hassle of always having the CLICK, SEQUENCE CONTROL, or LOCATE page on screen, the program works with no sweat. And it's screw-up- able, so you can have fun changing things that aren't supposed to be changed (the child in all of us). For $70, we highly recommend it!

Special thanks goes to David Webb, who definitely had a hand in the review. ▬

Bio: Garth Hjelte is Owner-in-Residence of Rubber Chicken Software Co., a reputable inter-galactic trucking firm. His only claim to fame is to have piloted the mother ship that dropped Craig Anderton on this planet (you really should hear our side of the story!).

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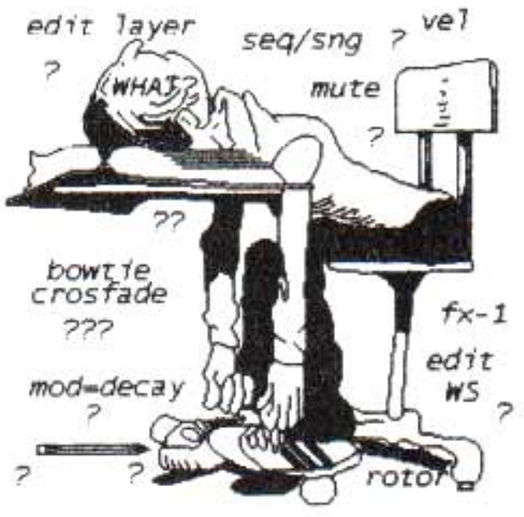

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Key-up the VFX

Dara Jones

My first synthesizer was one of those *almost* consumer types with just enough features to tantalize, but not to satisfy. When I realized the VFX had everything I longed to try, but couldn't, on keyboard X, I had to have one. However, now that extra capability often sits inert, unused and unappreciated. I might as well still own a brand X. *NUH-UH!*

If you'll pardon the cheezy sound this experiment gave birth to, I think you'll enjoy the features it is intended to highlight. Rather than put you through the typical "press this, change that," I'm going to borrow an idea and have the 2 voices in question neatly laid out in Hackerpatch form. It just *looks* better this way, I must say.

After you've put in the two voices, solo formant-x and notice the random sample-and-hold modulation of the timbre. In the absence of true sample and hold I used noise and sent it through the mixer and smoothed it to get the same modulation effect. In the absence of true resonance, I instead modulated the waveform itself which, since it is a transwave, has resonant-sounding timbres within itself. I could've modulated it with just about anything. For example, if I wanted to change the sound's timbre during a performance, on the fly, I could use the timbre slider as the modulator instead.

Now, solo the strings. Notice that Envelope 3 is in the "finish" as opposed to normal mode. This is so that even with the key up, the amp envelope will finish its modulation instead of releasing as it normally does on a key up. Under wave, notice that the delay is set to key-up. These two parameters set up the foundation for most of this sound except the pitch modulation. This is found in Envelope 1. I started with a long, laborious glissando, but ended up using a slight portamento instead so it instead seems to be a kind of metamorphosis of the formant-x sound. I called Envelope 1 into the pitch by giving it a +54 under the Pitch Mod. I had Envelope 3 come in at such a rate so as to counter some of Envelope 1's pitch modulation and give me a nice clean portamento sound. Ultimately, I got the sound I wanted.

I had to play with formant-x's Envelope 3 release parameter a bit to get a reasonably smooth transition between the two sounds. I didn't want an abrupt cut off nor an overly long release.

Now the trick with this sound is definitely the playing of it. HEY, I MAKE 'EM, I DON'T PLAY 'EM! (smile) ▬

Bio: Dara Jones collects dinosaur synths in her spare time.

WAVES

	1	2
Wave	FormantX	Strings
Delay	0	KeyUp
Direction	-	Forward
Start	19	0
VelStartMod	-	0
MODSRC	Mixer	-
MODAMT	+7	-

MOD MIXER

	1	2
SRC-1	Noise	Timbr
SRC-2	Mixer	Press
SRC-2 Scale	6.0	1.0
SRC-2 Shape	Smoother	Linear

PITCH

	1	2
Octave	0	0
Semitone	0	0
Fine	0	0
Pitch Table	System	System

PITCH MODS

	1	2
MODSRC	LFO	LFO
MODAMT	0	0
Glide	None	None
ENV1	0	+54
LFO1	+10	+10

FILTER 1

	1	2
Mode	2LP	2LP
Cutoff	127	127
KBD	+25	+25
MODSRC	Mixer	Mixer
MODAMT	+29	+29
ENV2	+50	+50

FILTER 2

	1	2
Mode	2HP	2HP
Cutoff	0	0
KBD	0	0
MODSRC	Timbr	Timbr
MODAMT	0	0
ENV2	0	0

OUTPUT

	1	2
VOL	84	97
MODSRC	LFO	LFO
MODAMT	0	0
KBD Scale	0	0
LO/HI Key	C3/C6	C3/C6
Dest Bus	FX2	FX2
Pan	47	53
MODSRC	LFO	LFO
MODAMT	0	0
Pre-Gain	Off	Off
Voice Prior	Medium	Medium
Vel Thresh	0	0

LFO

	1	2
Rate	43	43
MODSRC	*Off*	*Off*
MODAMT	0	0
Level	0	0
MODSRC	Wheel	Wheel
Delay	0	0
Waveshape	Triangle	Triangle
Restart	On	On
Noise SRC RT	78	-

PERFORMANCE

Timbre	0
Release	0

SELECT VOICE

00	1	2
0*	1	2
*0	1	2
**	1	2

ENV1

	1	2
Initial	-	87
Peak	-	99
Break 1	-	99
Break 2	-	99
Sustain	-	99
Attack	-	39
Decay 1	-	99
Decay 2	-	0
Decay 3	-	0
Release	-	0*
KBD Track	-	0
Vel Curve	-	Convex2
Mode	-	Finish
Vel-Level	-	0
Vel-Attack	-	0

ENV2

	1	2
Initial	99	99
Peak	75	75
Break 1	50	50
Break 2	25	25
Sustain	0	0
Attack	50	50
Decay 1	50	50
Decay 2	50	50
Decay 3	50	50
Release	50*	64*
KBD Track	0	0
Vel Curve	Cnvx2	Cnvx2
Mode	Normal	Normal
Vel-Level	50	50
Vel-Attack	0	0

ENV3

	1	2
Initial	0	0
Peak	99	99
Break 1	99	99
Break 2	99	99
Sustain	99	99
Attack	24	38
Decay 1	50	33
Decay 2	50	16
Decay 3	50	29
Release	77	70
KBD Track	0	0
Vel Curve	Cnvx2	Cnvx2
Mode	Normal	Finish
Vel-Level	0	0
Vel-Attack	0	0

PGM CONTROL

Pitch Table	Off
Bend Range	**
Delay	X4
Restrike	78
Glide Time	0

EFFECTS (1)

Effect	Chorus & Reverb1
Decay	78
FX1 Mix	25
FX2 Mix	50

EFFECTS (2)

Rate	20
Depth	19
Delay	20
Rate Mod	+25
Depth Mod	+25
Mix	50

EFFECTS (3)

Waveshape	Sine
MODSRC	*Off*
HF Cut	Off

SQ-1/2 & KS-32 Hackerpatch — Jeffrey Rhoads

Prog: Sparky Horns

By: Jack Stephen Tolin

Notes: For some variations, play around with the modwheel, the CV pedal, and pressure.

WAVE	1	2	3
Select Voice	On	On	On
Wave Class	Drumwave	Transwave	Transwave
Wave	RideCmb	Res1-X	Res1-X
Delay Time	000	000	000
Wave Direction	-	-	-
Start Index	00	97	97
MODSCR	Off	Off	Off
MODAMT	-	-	-
Restrk Decay	00	00	00

PITCH	1	2	3
Octave	+0	+0	+0
Semitone	+00	+00	+00
Fine	+00	+00	+00
ENV1	+00	+01	-01
LFO	+00	+00	+00
MODSCR	Off	Noise2	Noise2
MODAMT	-	-04	+04
KBD Ptch Track	On	On	On
Glide	Off	Off	Off
Glide Time	-	-	-

ENV1	1	2	3
Initial	-	24	24
Peak	-	49	49
Break	-	74	74
Sustain	-	99	99
Attack	-	00	00
Decay 1	-	10	10
Decay 2	-	10	10
Release	-	10	10
Vel-Level	-	00	00
Vel-Attack	-	00	00
Vel Curve	-	-	-
Mode	-	Repeat	Repeat
KBD Track	-	+00	+00

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

FILTER	1	2	3
Filter 1	2Lo	2Lo	2Lo
Filter 2	2Hi	2Lo	2Lo
FC1 Cutoff	127	000	000
ENV 2	+00	+95	+95
FC1 KBD	+00	+00	+00
MODSCR	Wheel	Pitch	Pitch
MODAMT	-99	+50	+50
FC2 Cutoff	127	127	127
ENV2	+00	+00	+00
FC2 KBD	+00	+00	+00
FC1MOD-FC2	Off	Off	Off

ENV2	1	2	3
Initial	-	32	32
Peak	-	99	99
Break	-	54	54
Sustain	-	99	99
Attack	-	17	17
Decay 1	-	22	22
Decay 2	-	80	80
Release	-	16	16
Vel-Level	-	19	19
Vel-Attack	-	06	06
Vel Curve	-	Quikrise	Quikrise
Mode	-	Normal	Normal
KBD Track	-	+28	+28

AMP	1	2	3
Initial	99	89	89
Peak	99	99	99
Break	99	99	99
Sustain	99	99	99
Attack	00	07	07
Decay 1	00	00	00
Decay 2	00	00	00
Release	00	50	50
Vel-Level	26	19	19
Vel-Attack	00	19	19
Vel Curve	Linear	Convex	Convex
Mode	Normal	Normal	Normal
KBD Track	+00	+00	+00

OUTPUT	1	2	3
VOL	99	99	99
Boost	Off	Off	Off
MODSRC	Off	Press	Press
MODAMT	-	-99	-99
KBD Scale	+00	+00	+00
Key Range	A0 C8	A0 C8	A0 C8
Output Bus	FX1	FX2	FX2
Priority	Med	Med	Med
Pan	+00	-28	+28
Vel window	000	000	000

EFFECTS — HALL REVERB

FX-1	60	FX-2	30
Decay Time	25	Diffusion	50
Detune Rate	45	Detune Depth	10
HF Damping	00		
HF Bandwidth	46		
LF Decay	+10		
MOD (Dest)	Decay		
BY (MODSRC)	Modpedal		
MODAMT	+89		

The Hack: Into the WayBack Machine — I found this one sandwiched between a review of the new Canned Heat "LP" and a promo for the Rambler American. It still sounds pretty good, though. This could be due to some rather clever programming (or just dumb luck). Hmmm, using Repeat Mode Pitch envelopes rather than LFO... nice Filter Mods... NOISE2 Mod Soucres... Clever.

For those who prefer the "Sparky Horns" sans spark, push the modwheel up. Also, consider another brass sound instead of the ride cymbal for Voice 1. Then, try using the Transient Default Envelope setting for Env2 and/or the Amp Envelope.

If psychedylic reverb doesn't excite you (the way it does Jack), in the Effects Section, adjust the Modamt to about +15. If that's still too much, change FX2 to 15. To fatten the brass a little, go to the Pitch Section for Voice 2 and let Fine equal +04. This sound seems to go farther with a wider stereo split — in the Output Section for Voices 3 and 4, set the Pan to +56 and -56 respectively. Sherman, back to the present!

Jeffrey Rhoads

Bio: Jeffrey Rhoads is a keyboardist/composer on the Philadelphia Jazz and R&B scene, 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:
SQ-1/2 – An "Elton John" Oberheim Bass patch — like in *Rocket Man*.
SQ-1/2 – Good Electric guitar — similar to Wah-wah on the Korg 01/W.
SD/VFX – A sitar patch.

ESQ & SQ-80 Hackerpatch — Guest Hacker: Charles R. Fischer

SQ-80 PROG: BOMBS — **By: Charles R. Fischer**

	OCT	SEMI	FINE	WAVE	MOD#1	DEPTH	MOD#2	DEPTH
OSC 1	+2	00	00	SINE	ENV1	+63	-	-
OSC 2	+2	00	20	SINE	ENV1	+63	-	-
OSC 3	-3	00	05	NOISE2	LFO1	+63	LFO2	-63

	LEVEL	OUTPUT	MOD#1	DEPTH	MOD#2	DEPTH
DCA 1	00	ON	ENV2	+58	-	-
DCA 2	00	ON	ENV2	+58	-	-
DCA 3	00	ON	ENV3	+63	ENV3	+63

	FREQ	Q	KEYBD	MOD#1	DEPTH	MOD#2	DEPTH
FILTER	036	00	20	LFO3	+63	ENV3	+47

	FINAL VOL	PAN	PAN MOD	DEPTH
DCA 4	59	08	LFO2	+48

	FREQ	RESET	HUMAN	WAV	L1	DELAY	L2	MOD
LFO 1	63	ON	ON	NOI	63	00	21	-
LFO 2	03	ON	OFF	TRI	63	00	63	-
LFO 3	03	ON	OFF	SQR	63	00	20	-

	L1	L2	L3	LV	T1V	T1	T2	T3	T4	TK
ENV 1	+63	+00	+00	+00	+00L	00	48	00	00	00
ENV 2	+63	+53	+00	00L	00	00	41	40	00	00
ENV 3	+00	+63	+00	00L	00	47	00	52	00	00
ENV 4	+63	+63	+00	00L	00	00	49	43	00	00

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

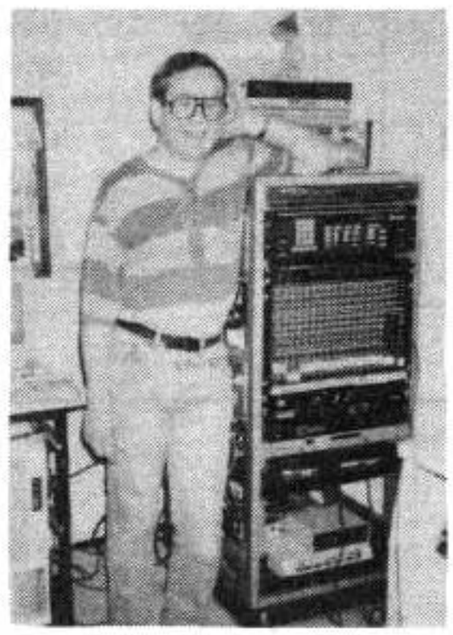
SPLIT/LAYER	S/L PRG	LAYER	L PRG	SPLIT	S PRG	SPLIT KEY
OFF	-	OFF	-	OFF	-	-

The Patch/Hack:

by Charles R. Fischer

BOMBS recreates the aural effect of wartime over Baghdad (or any other infamous bombing raid in recent history). OSC1 and OSC2 duplicate the bombshell whining as it falls toward the ground, while OSC3 is used to imitate the explosion itself. Try adding a little outboard reverb or EQ to suit your tastes — but watch your speakers!

Note: This patch was created in order to win a bet that I wouldn't be able to do it using an SQ-80. I won.



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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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.

Transoniq Hacker:

Having recently purchased a **TS-10**, several things have become apparent and so perhaps you might answer a couple of questions. Will there ever be an upgrade to save the actual sampled sound? Yes, it's nice to be able to save just the edit but there are many instances where I would like to save the actual edited sound. Are there any utilities that will convert EPS-16+ sequences to the TS-10 format? I have a lot of sequences that I created right on my now departed EPS and I would really like to hear them on my new keyboard. Do you have any suggestions for books that explain effects programming? One of the reasons I traded in my EPS-16+ was to have access to all of the wonderful effects options. However, trying to figure out what does what has been less than fruitful. Lastly, (did I say only a couple of questions...) would I be able to use Sample Vision with the TS-10?

That's it for now. Thanks for being such a GREAT resource!

Tim Dorcas
INTERNET:tim.dorcas@cnest.com

[CS – As far as I can tell, Ensoniq has no plans to add the ability to actually save sampled sound data to disk in the TS-10. Oh well. As far as transferring EPS-16 PLUS sequences directly to the TS-10, it's possible that the inimitable Gary Geibler may have a solution. And as Gary now works for Ensoniq, perhaps a positive response will be forthcoming.

Effects programming can be a pretty deep subject, requiring years of study and a well-staffed tax-deductible research staff, who won't tell you things like, "Honey, did you fix the leak under the kitchen sink," as my research staff does. Without government funding, though, I'd suggest maybe browsing through some of the titles published by Mix Bookshelf (800-233-9604). I'm sure they'll have something that'll help, and you won't have to talk to any senators (a big plus, to my way of thinking).

And finally, no, you won't be able to use Sample Vision with the TS-10 (if, by "with the TS-10" you mean, to actually download samples from the TS-10 to the computer for editing, which the TS-10 isn't capable of doing, rather than simply "at the same time that the TS-10 is turned on," in which case you could use Sample Vision to do something else – such as visualize samples. Just not samples from the TS-10).]

[Ensoniq – The TS keyboards were not designed to save sampled sounds to disk or via SCSI, nor to allow wave data transfer for external editing. The inclusion of loading sampled sounds is designed as an extension to the wave ROM, allowing you access to a wide variety of great sounds. You can edit the sounds to match your needs, combine them with onboard synth sounds (in Performance Presets) and use them in your sequenced data.

They were not designed to turn the TS synthesizer into a full-function sampler, and we have no plans to ever update them into that type of product.]

Dear Hacker,

I need help in upgrading an **ASR-10**. I recently purchased an ASR-10 with 2 Meg RAM. I want to expand the RAM to 16 Meg, as 2 Meg on this machine isn't all that useful. The problem is that every upgrade that I try fails. According to Ensoniq (Both the ASR-10 manual and tech support), the only requirement is that I use Mac type SIMMS, 4x8, with speed of 80ns or better. I have tried 4x8, 70ns SIMMS from various manufacturers with the same result...the ASR-10 recognizes the RAM, but crashes after only 1-2 minutes of use, usually with an "Error 129 – Reboot? " I asked Ensoniq tech support if there were any other stipulations or requirements on the type of RAM used, but they said there weren't any. It would appear that this is not a true statement. Any help would be appreciated..

I like the ASR-10, but if I can't upgrade the memory, the machine really isn't very useful to me.

Note: I was even refused the option to purchase memory for the ASR-10 by a SIMM vendor because he said he has so many returns on RAM for Ensoniq samplers, that his company now has a policy to not sell to any Ensoniq users!!!

HELP...I'm sure I'm not the only ASR-10 owner who wants to upgrade his machine.

Thanks,
Ron Temske
CIS 70642,221
rtemske@garnet.msen.com

[TH – Did you check out the article in #99 about memory upgrades for the ASR? Just briefly, for 16 M it says, 4M SIMMS, 30 pins, 8-bit, mono-parity. The original SIMMS should be removed, the jumper moved, and four 4M SIMMS installed. The speed of the SIMMS should match within the pairs. It also mentions David Lampert of Custom Services as being a good source – (818-881-6185). Hope this helps.]

[CS – The big problem, probably, (and Ensoniq has promised to elaborate on this topic in a more elaborate way), is that there is a relatively new sub-species of SIMM which has not 8, but 2 chips on it, and which will not work reliably with some products (the ASR-10 being one of such products). These SIMMS are becoming prevalent on the marketplace because of the glue-factory disaster of 1993 (we won't go into the sordid details, which we're not really sure of the factual veracity of here), which has driven up the price of regular, works-in-everything SIMMS, making the newer, works-in-everything-but-the-product-you-personally-own SIMMS more attractive to resellers who are trying to make a profit on stuff they sell.

The easy way to tell if the SIMM is the right kind or not is to count the number of chips on the SIMM itself. If there are eight chips, it should work fine (assuming the other specs, such as speed, parity, etc. are correct). If there are less

Treat Yourself!!

ASR-10/TS-10/EPS

Samples from K. Thomas

Electronic Musician says —
"Sound Quality: 5 out of 5
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[*EM*, Jan. '92]

Keyboard Magazine says —
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[Jim Aikin, *Keyboard*, Oct. '91]

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Demo Tape ... $8

K. Thomas

PO Box 23056
Stratford, ONT N5A-7V8
Canada
Phone: 519-271-7964
or 519-273-7812

than eight chips, chances are it won't work too well. Of course, if you are looking at the SIMM, you probably already bought it, and it's too late anyway. You have my condolences.]

[Ensoniq – You should not be having the type of problem that you are describing. We have many thousands of units in the field with upgraded memory and no problems. Let's examine a couple of possible causes:

1) As Clark mentions, the new "subspecies" of SIMM is called a composite SIMM, and that will not work with the ASR. As a point of reference, it will not work with any APPLE computer either – all their documentation strictly forbids the use of composite SIMMs.

2) The ASR works with 30-pin SIMMs, not the newer 72-pin SIMMs which are becoming common.

3) You didn't move the jumper to the EXP location, which must be done when using expansion memory.

4) There could be some other type of problem with your ASR that is not directly related to the type/brand of SIMM you are using. If the above ideas don't lead you to a solution, call Ensoniq Customer Service again, we're here to help you.]

Transoniq Hacker:

Are old Hackerpatches for the **SQ-2/KS-32** from the *Transoniq Hacker* available online anywhere on the Internet? If so, where are they and what file format are they in?

Thanks,
Robert Plotkin
rplotkin@acs.bu.edu

[TH – Not that we know of. If you do find them (or if anyone knows of such), let us know and we'll pass it on to the rest of the Hackers.]

Dear CS/TH,

Thank you for your help in itemizing current sound disks available for the **TS-10** and companies specializing in providing an alternative sound source service. At the time of writing, the three disks from Ensoniq are not available in the UK but hopefully this is only a temporary situation. I have contacted some of the software companies found within the *Hacker* pages for further details of sounds from their catalogs, as you suggested.

Having bought an ESQ and an SQ-80 some years ago I have always appreciated the user-friendliness and facilities of these keyboards. However, technology marches on and I upgraded to the TS-10 which, I must stress, I think is a marvellous instrument both for the improvement in sonic quality and the sound palette available – so what do I miss? What I've always appreciated from Ensoniq – full programmability.

The ability of being able to play samples is an excellent facility but, of course, they have to be loaded and if modified these extra mods have to be loaded as well. This can become time consuming and possibly confusing.

As the TS-10 loads from disk, why did Ensoniq not give us their usual first class quality of user-friendliness – a back-up disk of higher definition samples to complement the onboard sounds, but, more importantly, backup disks of ROM sounds and a full bank of user RAM 0 – 7 and full presets RAM? All 960 locations being RAM. Which brings me to my next question.

Would it be possible to have my TS-10 converted to all RAM for full programmability and, if so, what would this cost? As any synthesist will tell you, there is no substitute to having your tweaked sounds tailored to your splits. Your layers and your memory location preferences are all there instantly at the touch of a button. We had it before – why have we lost it now?

I have jotted a few ideas below for TS-10 feature additions. Though, of course, they might not be a technical/cost-effective possibility.

EQ: What impresses when working with sound sculpturing is how the EQ sections found with some of the effects can greatly enhance or change a sound. Could not EQ be located as an integral part of voice architecture before being routed to any of the effects?

Wave Backwards and Offset: Could a facility be implemented to start and end any small fragment of the wave (variable) and then time stretch and/or loop this result to open up further sound possibilities within the 254 waveforms?

Effects: Vocoder/Harmonizer sections actuated onboard or from external source mic/line.

Polyphony: More for greater sonic combinations.

I would really like to see these features and waves on the TS-10:

• Acoustic Piano (upright) – less full than Grand, for further combinations and light jazz styles, etc.

• Clean "Classic" Electric Guitar: bright, clear wave.

• Jazz Guitar 1 and 2: – 1 bright. 2 vintage amp sound.

• "Classic" Lead Synths 1, 2, and 3 – to enhance the synthesis capability and free waves for further combinations.

• Holophonic 1 -5: 5 alternative waveforms based on the crystal wave for adding further sound coloration.

• Resonance 2: less nasal then present Res 1.
• Resonance 3: like Res 1 but thinner.
• Resonance 4: like Res 3 but less nasal.

Resonance is an essential tool for synth wave shaping and sweeping. 3 and 4 would be useful for sweeping more delicate sound structures and imparting alternative coloration without swamping the sound picture.

• Solo Voice: Male and female keyboard multi-sample "Ah" sound. Variation in voice timbre to choir.

And more disk allocation for retrieving simple sound programs for easier building of keyboard bank combinations when extracting sounds from various disks. Perhaps a secondary alternative format feature?

The TS-10 is a great keyboard and only a few features short of being a definitive synthesizer and surely poised in its fully charged form to take its place in the "Classic-Synthesizers-of-all-time" rating.

So what's next? Possibly the ability to sample from an external source and commit your processed sample to memory to improve the sonic open-endedness capabilities but – Hey! – wait till Ensoniq (technology permitting) develops a system of saving your newly created samples in memory even after the power is switched off. Ready and waiting to be played when the power is switched on without any need to load – wow!

With reference to the EQ effects parameters and Terry's letter of the January, 1994 issue. Although I'm unaware of the effects parameters onboard the ASR-10 I would assume they are similar to the TS-10 and, if this is so, it is possible to tweak an otherwise lackluster guitar signal with EQ. This might seem a little bit obvious but by exploring different settings within the effects it can sharpen guitar clarity before becoming too thin or noisy. There is obviously a limit to the success of this procedure but it can yield some interesting results. Coupled with the advantage of the ASR's ability to sample and careful refining of the input sound definition I should imagine it is possible to get pretty near nirvana. Lucky ASR owners. As regards the TS-10, I have not yet found that distinctive guitar sound though EQ has achieved some better patches.

Harking back to the TS-10 features, one very useful page would be a "Last Sound Recall" facility. Pressing the appropriate button takes us

to this, where we are confronted with:

DEFAULT SETTING: PRESETS ON OFF
(Last sound memory recall): SOUNDS ON OFF

When OFF is selected in both sound and preset, the TS-10 selects preset 1, bank 1 when switched on as normal. However, when presets ON is underlined the TS-10 recalls the last preset being used prior to the power being switched off. This is selected even if presets banks were being used. When both presets and sounds are switched ON then the TS-10 recalls the very last sound being used whether in sound banks or presets banks. This feature would add greatly to the ease of use of the board and enable immediate access to programs within banks wherever this might be when switching on the synthesizer, thus saving time locating sounds and useful for programming purpose or live performance.

Many thanks to TH for a splendid forum and magazine, Ensoniq for their products, after-sales support and encouragement to "feed back" and all contributors to the *Hacker*.

Yours faithfully,
C. Peglor
West Midlands, England

[TH – C Peglor's letter was followed by another a few days later (almost as long...) describing in detail the suggested workings of an "instant PRESETS/SOUNDS" feature. This letter was in turn followed by another (much *longer – complete with diagrams, layout suggestions, and examples) describing suggested "Relocate" and "Super Memory Search System" features. This in turn was followed by yet another letter... We've had to break with our usual iron-clad policy of printing* everything *just because of the shear size of this series – in an already-crowded month. (Copies are available on request.) Letters 2, 3, and 4 have been forwarded to Ensoniq and their comments will follow.]*

[CS – Well I, for one, am glad – relieved, even, if that's not too strong a word – that this letter has been passed along to Ensoniq, so that I and my already overburdened research staff can concentrate on other, equally important endeavors. For example, my shredded right pants leg tells me it's probably time to feed the kitty.]

[Ensoniq – Whew. Yes we just finished reading all four letters and it will take months to digest all the wonderful ideas.

No, we cannot convert your TS-10 to full RAM memory. With the abundance and ease of computer librarians and disk file saving we don't think it's too inconvenient to reload data into the RAM locations as needed. But we're not arguing with the merits of your desire for an all-RAM system.

Regarding your descriptions of desired alternate waves, don't forget about loading in sampled sounds from the EPS/ASR libraries! That's why we included this feature, so you're guaranteed to always be able to get new sounds and wave data for your performing/programming needs.

Your "Last Sound" facility is pretty much implemented in the new Version 2.0 ROM's with a wake-up mode switch on the Master Page. You can decide to wake up in the following ways:

Sounds – powers on with the last sound used selected.

Presets – powers on with the last Preset used selected.

Seq/Song – powers on in Sequencer Mode, with the last Seq/Song used selected.

Default – powers on in Sounds Mode showing Program Bank U0-0.

Previous – powers on in the same mode the TS was in when it was shut off.

Last Page – powers on showing whatever the last page you were on was when the TS was shut off.

Close enough?

Unfortunately it doesn't seem particularly effective to try to answer each letter point by point here in the Interface. The TS-10/12 is what it is, and it would be redundant to continually say that it doesn't do what you suggest. Suffice it to say that we take your ideas seriously and will be looking to them for ideas/feedback for some time to come. Your feedback is guaranteed to help us make better instruments and we thank you for your input. Keep it up, we welcome hearing from you anytime.]

Dear TH,

I own an **ASR-10** which I am very happy with. However, there are a couple of things which I think could be improved:

• Now when we can have up to 16 Mb of RAM, the 8 instrument limit is becoming a bit annoying. Sure, you can load new instruments during playback, but the multitimbral possibilities would really improve if you could have something like 64 instruments in a buffer and be able to call one up instantly with a program change in the middle of a song.

• The filing system could be improved to allow the user to be able to scroll through files in alphabetical order and search for a character string.

My questions for Ensoniq are:

1. Would the above be impossible to implement in a future OS revision?

2. Since the basic CPU/sound engine structure of the ASR is the same as that of the TS series, wouldn't it be possible to port some of the TS goodies like wave-sequencing to the ASR?

3. The ASR doesn't seem to have a band limiting filter on the output to cut out everything above the Nyquist frequency. If this it true, would I be able to increase fidelity be connecting one?

4. I hope the ASR is not considered finished with the release of the OS 2.0 with your efforts being focused on your next masterpiece.

Thanks for a great magazine.
Adam Danielsson
Sweden

[CS – Actually, by using the patch selects and keyboard range settings creatively, you can get an awful lot of stuff into an ASR-10. For example, by copying layers from one instrument into unused layers in another, you can create a "dual" instrument, assigning each individual instrument to a different combination of patch

Play Along Sequences for the EPS 16+ and ASR 10

The **Gospel Set** includes 8 songs designed specifically for the EPS 16+ and ASR 10

Perfect for offertories, preludes, etc.

Each song includes:
6-8 new sounds
Printed music
Performance *and* demo sequences

$10.00 per song

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Demo audio cassette and complete song list $3.00
(Refundable with first purchase)

"If you are a musician...playing sacred music...these are an essential purchase."

"Definitely worth it.
Even if just for the sounds."

[Garth Hjelte, *TH*, July '93]

The Rhythm Factory

303 Saddle Bridge Lane
Franklin, TN 37064

selects. Since each instrument allows for up to four patch select variation, this can give you instant access to up to 32 instruments – 8 instruments X 4 patch selects. And if you want to really go whole hog, you can place two instruments in two different keyboard ranges (since MIDI provides for 128 notes, you can have two 64-note instruments side by side) so that both instruments are available simultaneously. This, in combination with the patch selects, would allow you to conceivably have 64 instruments in memory at one time.

And the alphabetical filing system seems like a good idea to me, too.]

[Ensoniq – 1) More instruments are pretty much out of the question because of the limitations of the user interface, and the fact that the Instruments/Tracks and MIDI are all tied together. And we agree with Clark's answer – you should realize that with creative use of Patch Select and Layer programming you can effectively have 32 different Instruments available (8 Instruments x 4 Patch Selects). to choose from. Anyone for an application article on merging instruments together?

2) Since the ASR memory is volatile, it makes it very complicated to structure a wave list from data locations that can keep changing contents.

3) The ASR does have output filtering. We don't use brick-wall output filters because of the negative effect they have on sound quality. Anything in the ASR output above Nyquist is not going to affect fidelity.

4) No, we have not closed the door on ASR development, but don't take that as an open invitation for a ton of wish-list ideas, because we have very definite plans for what we intend to do. And thanks for the "masterpiece" analogy!]

Dear Hacker,

I am writing this brief note to confirm what most readers already know – that the *Hacker* is a fine source of information about Ensoniq and related products. However I an particularly thankful that I saw an ad in one of your recent issues for instruction videos for several Ensoniq products from Covert Video. Although a little apprehensive about the investment (about $120) I purchased the four **ASR-10** videos (8 hours of instruction) "hot off the press." I have finally completed the last tape and as the personable and entertaining instructor Rick Parent says at the end of several of the more complicated explanations..."Whew!!!"..., it's a lot of information. I cannot say enough about these tapes. I would not have learned as much if I had studied the manuals for years – and I have read each of them. I highly recommend these tapes to anyone who is less than an expert hacker. You will save many months, if not years, understanding and implementing the full capabilities of the machine.

Dave Webster
Chagrin Falls, OH

Dear Transoniq Hacker,

Thank you for the great job you're doing keeping us informed on Ensoniq products.

My **SD-1** is one of the loves of my life. I took it personally when *Keyboard* suddenly berated it while trashing the TS-10, which will probably be my next keyboard. The sequencer on those machines is a joy to use. As for the scientific analysis of loops et al, as far as I'm concerned, what matters is not what I read but what I hear.

Which leads me to my non-scientific tip. Never open a can of soda or beer anywhere near your toothy baby. It takes only one splash, a very small one, to knock your disk drive our of action, as I learned the other week. While it was being repaired I had to resort to another, non-Ensoniq keyboard. How I missed the touch of the SD-1. It was like playing on a sponge.

Continued success, *Transoniq* and Ensoniq both.

Regards,
Ron Hewson
New York, NY

[CS – Good point, Ron. Sponges are for wiping up spilt beer, not keyboard action.]

Dear Hacker,

I have a **KS-32** which I use to drive a Roland JV 880. Can you tell me if and how I can control the volume on the 880 by using the data entry slider on the KS-32. Currently, the volume on both instruments is controlled by the 32's Pedal CV, and I use the foot switch for my sustain pedal. Since I have dual stereo inputs on my amplifier, being able to use the data entry slider for the 880 volume control (independent of the pedal CV) would eliminate the need for a mixer.

Also, one question on the 32. Is there any modification that can be done (by an Ensoniq tech, of course) that will quiet/dampen the return/release of the weighted keys? Most of my playing is primarily classical (and quiet) and the keyboard thunk is sometimes a distraction.

Thanks for the info. You have a great publication.

Steve Miksis
Santa Rosa, CA

[CS – You can use the KS-32 data slider to send volume change messages from within KS-32 presets. Use a KS-32 preset to assign different tracks to play the various JV 880 sounds you want to use. Then you can adjust the volume for any JV 880 voice by selecting the track it's assigned to and using the data slider to edit the track volume. You can adjust the volume in real time, of course, and you can also save an entire "mix" by saving the KS-32 preset.]

[Ensoniq – No, there is no modification available to adjust the keyboard action. Sorry.]

Dear Hacker,

Here are a few tips for sampler owners who run Cakewalk/Pro and also own a SCSI hard drive. If you request the system exclusive specs from Ensoniq (free!) for your particular sampler you will find a section in the spec that refers to the Virtual Button Press commands. When these hexidecimal commands are sent sequentially from the system exclusive window in Cakewalk they can allow automated navigation of directories on a SCSI hard drive. In other words you can have your **ASR-10** banks load automatically when you open a Cakewalk file. You could think of these as external macros.

Turn System Exclusive On at the ASR-10 and save it globally so it will stay on whenever you boot. Load a Cakewalk file and from the System Exclusive window of Cakewalk, press the Edit Byte button. You can now enter a hexidecimal command, eg. [F0 0F 03 00 40 00 14 F7]. This is the command for the press Load button for the ASR-10. Go back to the previous window and give this command the name "Press Load Button." This way you can view what commands will be sent. Cakewalk allows up to 256 banks to be sent at a time, so each bank can represent a single button press. Since you will be sending these banks sequentially it is important to set up the order of sysex commands in the order that you would actually press buttons, meaning the "0" bank in Cakewalk is sent first and so on. Continue adding different commands and use the Send All button to see how the commands are navigating through the SCSI hard drive so you can direct them toward your ASR-10 bank directory. Once you have found the ASR-10 bank that corresponds to the Cakewalk file, add an Enter*Yes sysex command to the end of these commands. Now check off Auto for each bank. This enables Cakewalk to send the banks when you open a Cakewalk file. Actually, you will be prompted to send them. You may have to adjust transmission speed for these commands in Cakewalk depending on the speed of your particular computer.

So you say you don't want to go through this drudgery every time you load a Cakewalk file... then don't. Create a global file in Cakewalk and create a generic sequence of commands that can be used every time you start a new song. This way all you have to do is check off Auto for

each different command you want to send. To be honest I haven't actually tried this yet on a SCSI hard drive...(just disks, sigh) so I may have missed something. But I believe it will work just fine with some practice and may help to automate loading banks. If anyone has any suggestions or questions about how to use these tips, I would appreciate comments from them or others who might have invented this wheel themselves. I have available a global.wrk or global.tpl file that has the needed ASR-10 system exclusive commands embedded in it. Just send a SASE with a 3 1/2 inch floppy, or contact me at the address or phone below. Now if I could only figure out how I'm going to afford a SCSI drive.

Thanks for a great mag.
Brian Reardon
139 Richardson St
Palm Bay, Fla 32909
(407) 984-5240

[CS – Cool tips, Brian – thanks! And I don't see any reason why this wouldn't work using a SCSI device rather than floppies. You will, of course, need to select the SCSI drive as the current storage device (unless you boot from the SCSI drive), but this could be easily handled using the same sort of "virtual button press" macros that you've described.]

Dear Hacker,

Want some new **SQ-1** sounds? You already have them.

I have found a way to approximate the patch select function used on the VFX keyboard and have it work on the SQ-1.

The following deals with using sounds, either RAM or ROM that have one or more voices not being used in the original sound. The new sound is played by calling up the chosen RAM or ROM sound. Press "Edit" button, go to the Select Voice screen and set Voice to "One" and turn On one or two Voices normally Off. These voices can be soloed also.

Entirely new voices can be programmed into any sound into RAM and saved.

With this done, play the new sounds in Edit mode. Some examples I use.

ROM #03 Bassoon
1. Turn on Voice 2 – play
2. Solo Voice 2 – play

ROM #23 Binary Keys
1. Solo Voice 1 -play

ROM #26 Keys and Voice
1. Solo Voice 3 – play

ROM #42 Outer Limits
1. Turn on Voice 3 – play
2. Solo Voice 3 – play

ROM #46 Trumpet
1. Turn on Voices 2 and 3
2. Turn off Voice 1 – play

ROM #72 Seduction
1. Turn off Voice 1 – play

ROM #48 Eternity
1. Turn on Voice 3 – play

In order to keep the SQ-1 dialogue going I'd like to advise that I have all the Hacker issues starting with #63. If I can help someone by passing on this data, I will. Also I'd like to know how much of the data for the VFX is directly pertinent to the SQ-1?

Thanks for your ears,
Jack Carder
3 Litchfield St
Springfield, Vermont 05156
(802) 885-9530

[CS – Great tip, Jack. I've always found it interesting to listen to voices in a program that might normally be disabled. Often the disabled voice(s) will contain sounds related to the unedited version of the sound program – perhaps a layer that the original sound developer decided didn't need to be in the final version of the sound. Often, these additional layers make for some pretty interesting sound combinations.]

Hello TH,

My letter is two-part. "PUMP" and "POP."

The first (PUMP), is in response to the January issue (#103) Interface. I would like to say that I searched and researched samplers for about 3 months before I made a decision on buying my **ASR-10**. When I read the letter from one reader and the salesman who told him "You need this!" about the Kurzweil K2000 sampler, I thought "I've got to write in."

Kurzweil was my first choice as far as specs were concerned. I read all the brochures and bugged all the salesmen to find the differences in the samplers. The K2000 had a lot of awesome editing capabilities that I really wanted, especially seeing the sampled wave on-screen. Great versatility. My second choice was the Akai, mainly because of its good rep and I liked its editing features. My last choice was Ensoniq because of lack of versatility, but I did like the hard disk recording feature and it was in the top three by word of mouth. So I went out to buy with the attitude that whoever was going to sell me a sampler was going to have to work pretty hard.

So I found the store and the salesman I wanted to work with and went to work. I went through a few hundred K2000 sounds and thought it sounded good but not that good. Did some sampling (at 44kHz!) and it still didn't sound that good. Onto the Akai which didn't last too long when I found out what it was going to cost. By this time, I had already kind of figured out that I was going to be disappointed with the Ensoniq board.

So I started playing around with the flute, the piano and something else, thinking this box don't sound too bad. As a matter of fact my ears and auditory canals were wetting their pants. The salesman suggested we do a little sampling. I thought, "YES, YES!" I said, "okay." We sampled from a CD-Audio disk. In less than a minute we had slammin' loop going. Then the salesman pulled out the CD-ROM CDR-2 and when I loaded up some loops, basses, and guitars I did all I could not to do the Mary Tyler Moore spin complete with my hat. I bought the ASR-10 rackmount and have not looked back at those other samplers since. It was even the lowest in price. With that hard disk recording feature on the way, the ASR-10 will be a big threat in the market.

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1. Why does it intermittently change volume levels on instruments assigned in the multi-mode? For example, I have a drum loop in "1" position, a bass in "2" and a synth in "3" – all in a pre-saved bank that I load in. The bass is too loud so I turn down the level with the data slider. Now, for some reason, all my levels mysteriously go wild. The drum loop goes real low even though it reads 99 and the synth stays the same.?! (Enter Twilight Zone theme music, softly.)

2. Where is the version 2.0 software?

3. Ensoniq has a "tidalwave, perfect 10, donate it to the Smithsonian so you can take a field trip and learn" sampler. Why stop there and not blow the competition away with a little standard MIDI sample dump. Maybe a pinch of sound editing/librarian computer software. a dash of this, a smidgen of that. My business logic probably isn't what it should be, I know, but can you explain this to the laymen out there. Would the cost be astronomical? Would an add-on card be out of line? Would Rodan beat Godzilla?

Still satisfied,
Derek Stevens
Los Angeles, CA

[CS – 1) From the problem you describe, odds are you have the infamous "MIDI Loop" problem; that is, you are somehow sending the MIDI output from your ASR-10 back to its own MIDI in. If you are using an external sequencer, make sure that it is not echoing volume changes that you send it from the ASR-10 back to the ASR; or better yet, use the external sequencer's controls to set volume levels. If you are using some sort of MIDI patch bay, make sure that you are not sending MIDI from the ASR MIDI out to the ASR MIDI in. If neither of these solutions seems to clear up your troubles, and the ASR still exhibits erratic behaviour when you try to edit volume (with nothing plugged into the ASR's MIDI in), then check with Ensoniq Customer Service (215-647-3930).

And I believe that Rodan should be given credit for being the only sculptor to even try going against Godzilla, whether he won or not.]

[Ensoniq – Regarding the "PUMP" part of your letter – sounds like a great ad to us. Can we use it?

1) Clark's answer sounds like the ticket to us.

2) Version 2 is alive and shipping. Thanks for being patient while we worked out the kinks.

3) And we thought we came up with cool marketing slogans! Beyond that, what are you trying to say?

P.S. There is a great Rodan museum here in Philadelphia, although there is nary a mention of Godzilla. Seems a shame...]

Yo TH,

1. Rather than proceed on an assumption, I thought I should ask and find out for sure. On an Ensoniq synthesizer, does a simple patch with lots of zero values and unused parameters take up as much synth memory and floppy disk space as a complex patch that uses everything?

2. Okay, I know what a hacker is, but what does "Transoniq" mean?

Sincerely your subscriber,
Kirk Slinkard
Lakewood, Colorado

[TH – When we first started the Hacker *it covered only the Mirage, that being the only Ensoniq board at the time. We kind of figured Ensoniq would eventually, if they were still around, come out with more boards and we knew, if we were still around, we'd want to cover them as well. Hence, Transoniq – *trans* – the whole enchilada. (Didn't you learn your lesson when you asked us about "vitriol"?)]*

[CS – A patch with a bunch of zeros in it takes the same amount of space as any other patch. A patch must store a value for each parameter, whether that value is 0 or 127, or OFF or ON. Since the number that represents that value must be sufficient to represent whatever value might be used, the size of the number is the same in either case. In a two-bit system, for example, the number 1 is represented as 01, while the number 2 is represented as 10. While it might seem that the number 3 is the larger of the two, the computer still requires two bits of data to represent either number.]

Sirs,

I first want to thank you for all the answers you have brought me through *Transoniq* magazine. It has helped a lot but I am still wondering about effect settings in preset mode and I may have found a solution that even Ensoniq engineers don't know!

My problem was, and still is, the following:

Suppose you have a sound named Big-One which uses the Stereo Phase Shifter effect and a second sound named Me-Too which uses the Chorus+Reverb effect. How can you use both sounds in a single preset, each one with its own effect? I am afraid the answer is "Go to the music shop and buy another **KS-32** – you'll get two different sounds with two different effects."

By the way, it's a shame that the KS-32 doesn't provide separate outputs – it would enable the user to process a sound with an external device.

But let's be reasonable and ask for something more likely. Let's say we will forget about phasing the Big-One and we will do with the same effect as Me-Too (Chorus+Reverb), since Chorus with a lot of feedback can produce a phaser-like effect. Then the problem becomes – How can I put Big-One through Chorus only (with no reverb) and Me-Too through Chorus+Reverb? I think the answer is there's no way to go through Chorus via FX1 and avoid FX2.

Well, fortunately, we're still very optimistic about getting this synth to do what we want it to, so let's try to imagine some kind of solution. Let's say it's not a problem to have Big-One going into Reverb after Chorus (a little reverb never hurts, does it?) But we are still facing the fact that Big-One needs a strong Chorus effect with feedback to simulate phasing, when Me-Too only needs a little chorus. So, is there any way to drive Big-One into FX1 with a strong value and Me-Too to the same effect but with a lesser value? I have tried many things to reach this goal and the answer is YES! And, here, even Ensoniq engineers may want to listen.

If you set the effect from the front panel, you will notice that all sounds inside a preset have the same "FX1 send" and "FX2 send" values. But there is something you can control from an external device, which is called, logically enough, Modulate by XCTRL. In our case, if you set your effect with "Modulate FX1-Mix by XCTRL + 99," it enables you to control the amount of effect SEPARATELY ON EACH MIDI CHANNEL. And there we are! Let's set the XCTRL as continuous controller 93 and we can control the amount of chorus (associated with reverb) on each channel. That is to say, send CC 93 on channel "Big-One" at 60 to have a strong chorus effect and CC 93 on channel "Me-Too" at 10 to have a little effect. As we say here, "'Impossible' is not a French word!"

One might regret that some parameters of the KS-32 are only accessible through MIDI when this keyboard is supposed to be the master... And, as I said before, I think it is really a shame that such a good sounding synth should have such a poor and illogical MIDI implementation.

Something else. In the MIDI implementation chart, it is said that the KS-32 receives CC 100 and CC 101, which are (in the normal MIDI world) the "Registered Parameters." This enables the user to set, for example, the pitch bend range. I have tried as many tricks as I could find to make the KS-32 react to changes in the pitch-bend range...and hope I can make it someday before I die!

On the other point of view, considering that the KS-32 is supposedly a master keyboard, it might seem obvious that the pitch-bend range changes done on the KS-32 (in the SYSTEM MIDI menus) should be sent via MIDI to external devices. Is there any way to do this? Thank you for your answers.

Transonically yours,
Gregoire Marechal
10 rue Jean Bleuzen
92170 VANVES, France

[CS – Actually, I'm not sure exactly what it is you are hearing, but you cannot control individual effects sends on a per-sound basis, whether such control is sent via MIDI or not; XTRL will affect the sound in the same way that any other controller (internal or external) will. It's still a much more flexible system than is found on most products with built-in effects, though.]

[Ensoniq – Your method does allow you to vary the FX-1 mix, but it will globally affect every sound in the Preset that is routed to FX-1 at the same time. In this way you can change the mix value over time (so there is more chorusing for a certain section of music than another) but it will not give you separate control for each track. Sorry, but we don't have individual track FX send amounts, no matter how you try to hack it.]

Dear Hacker,

Last June I became the proud father of an Ensoniq **TS-10**. This is the first keyboard/synth that I have owned or used. Prior to my purchase, I auditioned several comparable keyboards by Roland and Yamaha. The TS-10 prevailed, however, because it had most of the features that I desired such as the great sequencer, sampled sounds capability, excellent effects processor, disk drive and expandability.

Presently, I am trying to teach myself to play the keyboard and to read music. I have yearned for a synth for some time now so this is literally a dream come true.

Now some questions.

1. If a sound program with a wavelist is used while recording a sequence track and a key is held down for the duration of the sequence (like for a background sound effect or a wimpy, but quick, way to lay down a drum track) the computer will re-initialize if the duration of the event is greater than 341 beats and 31 clocks. This is about 86 bars at 4/4 time. Do all TS-10s behave like this and, if so, would Ensoniq consider fixing this in a future OS upgrade?

2. While using the event list in the sequencer, I frequently get to the top of list (event type=key) using the up arrow button and the computer will show, for example, that a key event at bar 30 is the last event when I know that key events are recorded up to bar 35. Then I will use the data entry slider to move to the bottom of the list, then to the top. Now the display shows event all the way to bar 35 and I can now use the up/down buttons to move through bars 30 through 35. Weird, huh? any ideas?

3. The manual gave me the impression that when using wavelists in a sound program that each wavelist is independent, while, in reality, parameters such as Volume, Xpos, Duration... are all shared by the other wavelists in the program. The only unique parameter is the referenced waveform, at each step, itself. While this isn't a big drawback, in the future, will we be able to adjust these parameters independently or is this a limitation imposed by the memory allocated to each program?

4. Finally, is it technically possible for the waveform ROM memory to be expanded from the slot originally intended for the SCSI interface?

Sincerely,
Eric Gooden
Bowling Green, Kentucky

[CS – 1) Any digital system that represents a note in terms of a note-on event and a duration (as does the TS-10, and most other systems) has a limit for how long a note can be. This limit is determined by how many bits are used to represent note duration. The simple solution is to use the sustain pedal to sustain the note. Since sustain pedal on and sustain pedal off commands are recorded as separate events referenced to the internal clock, there is no limit to how long a note can be sustained in this way.

2) This sounds like some kind of minor bug. As long as it's not messing with your data, I wouldn't worry about it too much.

3) A single wavelist can be designed for use within a sound program, and as such is not "completely independent" of other wavelists used in the sound. What the manual is referring to, I think, is the fact that each voice that's assigned the wavelist is independent. In other words, while the wavelist you've assigned to voice one and voice two is one set of data, you can process each voice independently; use different filtering, enveloping, and so on for each voice.

If you are not using all 16 steps in a wavelist, though, you can effectively simulate two or more completely independent wavelists. For example, assign the wavelist to voice one and voice two. For voice one, set the wavelist START-STEP (on the edit WAVE page) to 01, and END to 08 (you can set LOOPSTART for whatever you like, as long as it's not past step 08). For voice two, set the wavelist START-STEP to 09, and END to 16. You can now treat the first and last 8 steps of the wavelist as separate entities, programming completely different effects for voice on and two, if you so

desire.

4) No.]

Dear Inyerface,

I've been reading TH for about a year now and as I've become a somewhat serious Ensoniq user, I find each issue more useful than the last. I'm writing to you now to purge myself of both questions and suggestions.

First, let me quickly mention that I'm currently using a **KS-32**, an **EPS-16+** turbo w/88M Syquest and a **DP/4** in my little home studio. The good news is that they all work fine and I love 'em. But the bad news – both the KS-32 and the DP/4 have visited the service center. The KS went in to have the action replaced (an early production problem) and the DP/4 had a noisy effect unit (1 of the 4). I must say, however, that this has not shaken my faith in Ensoniq at all, as the service techs at Ensoniq were always very helpful and a pleasure to deal with. I applaud them for gracefully handling a thankless job.

With that said, I must say to Paul Bissell, yes, you can go NNNyyyrrrowwww like Rush on *"Tom Sawyer."* Just give Waveboy a call. I'm definitely one who melts at the sound of a juicy analog resonant filter sweep. Waveboy's Rez-Filter disk turns you effects processor into a resonant filter and yes, you can sweeeep it. You could just sample a real analog synth, but you'd have no dynamic control over the filter. The ReaFilter disk is great fun. Not quite as smooth as the real thing, but close enough for only $40.

I've had my DP/4 for about 6 months now but only recently started utilizing its true power. Each time I dive into it, I come away even more impressed. But with all that power, there is one simple function that people may forget about and that's volume control. I have a great 16x8x16 mixer, but it's not automated nor do I have a MIDI mixer. But I do have a 4 channel MIDI mixer in the DP/4! You can have 4 channels of mixing using the 4 source mono config or just set up 1 or 2 mono channels if that's all you need automated. Make sure you enable the units to respond to MIDI volume (controller #7). You can select the parametric EQ algorithms, define a couple of controllers and you've got MIDI mixing and EQing. Actually, you can select any algorithm you want for each channel and internally mix them down to stereo. Real cool!

Speaking of the DP/4 – Does Ensoniq have any plans to update its OS with even more algorithms? There are so many other things it *could* do. How about ring modulation or keyboard controlled pitch shifting/harmonizing? It already has an "auto-wah" but how about "auto-fades" (like a very slowly opening noise-gate.) Hey! It's got 4 inputs, how about Dolby Surround encoding. Oooohhh! (Dolby licensing required, of course.)

Now, about my KS-32. It's my main controller and sound generator and I love it, but why, of why, can't I set 2 voices to the same MIDI channel? (I cry in a trembly, dramatic voice.) I thought one of the original goals of the MIDI standard was to be able to layer sounds. Les Shefman addressed this issue in regard to his TS-10 in the Jan '94 *TH*, and Ensoniq's last words were "we don't see the problem." Well, I'll tell you the problem. Yeah, I too have a computer sequencer with gobs of memory, but you layer 3 voices (from the sequencer) and try to play 4-note chords while running a cool 16th note hi-hat pattern on drums and Ha! It chokes... (well, gags a little) That's the problem: MIDI bandwidth. Sure, all the data gets to where it's going, but when? Who knows. I thought maybe Ensoniq was just cutting corners to save processing power or cut cost on the SQ/KS sound board, but on a TS-10? Now it sounds like they designed it this way intentionally...Why? (What a pain in the asynchronous data stream.)

One last question, Ensoniq. What happened with Emagic?

Thanks for all the great toys, Ensoniq and thanks to *TH* for helping us play with them. Okay, I'll shut up now.

Miro Svetinsky
Bellflower, California

[CS – As far as I can tell, Ensoniq has no plans for expansion of the DP/4 OS. But keep those ideas coming in – you never know when one of them might make it into a product.]

[Ensoniq – 1) We have no plans for new algorithm updates to the DP/4.

2) Okay, we understand your issue but all we can say is that's the way the current products are. We'll certainly keep it in mind for the future. Perhaps you can create a few programs that have more voices used (giving up on Patch Select capabilities) to create a more stacked sound. The TS provides very easy copying functions, so building these "super-stacked" sounds is simple. Another applications article, anyone?]

[TH – Gee, no mention about Emagic... Near as we can tell from their latest ads, they're now being distributed by Thinkware.]

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To the Interface,

First off, I would like to thank the people responsible for coming up with, not to mention keeping up with, the *Transoniq Hacker*. It's a very informative reference companion. A must for owners of any Ensoniq instrument. I enjoy your articles and tips – especially the Interface.

I have info to give, as well as ask. But first, I'll ask. To start, I'm a guitarist. I bought a sampler and other electronic gear. I wanted to implement a more unique sound/with option of samples (voices, etc.) I'm trying to be as short and brief as possible, so let this be the last in depth explanation. I own an **ASR-10**. The reasons for not buying anything else are clear – nothing beats it.

I've owned it for over a year now and have upgraded it to death (memory, SCSI, digital outs, etc.) I'm to the point where I want a computer, but want to buy the right type. IBM or Apple/Mac? I prefer the IBM format, I guess. It seems to be the preferred one. But I don't want to buy one and this cool music software and have my ASR-10 (and someday, my TS-10) whip me the bird saying "you shoulda bought a Mac." I know Ensoniq's got some benefits linking their stuff to Apple/Mac systems software. Someone please tell me the benefits of either brand as far as using Ensoniq equipment. I'll also be using it for other applications – does that restrict me?

Now to give: I've noticed in past issues a couple of people writing in about SIMMS chips and hard/removable drives. I don't know if there's cheaper out there, but I've found the SIMMS (4 meg 70 nanosecs [30 pin] for $134 and an 88mb removable for $450 (ASR-10 compatible) from Mac Trend at 800-546-1799 in Anaheim, CA and from LRO 800-275-4576 in Woodstock, Illinois.

Sincerely,
Jon
Milwaukee, Wisconsin

[CS – Thanks for the info, Jon.

The question of which computer to buy is a thorny one – and one I couldn't possibly answer here. Both platforms you mention have things going for them, but without knowing a good deal about what you want to do with a computer, I couldn't begin to answer your question.

On the other hand, this question seems to be in the minds of a lot of people lately, as both Electronic Musician *and* Keyboard *magazine have run several articles in the last 6-8 months that address this and other pertinent topics. I'd suggest you hunt up back issues of both these magazines, as well as the current issue of* Keyboard, *which has feature stories about both platforms this month. Also, get your hands on any of the current or recent IBM- and Macintosh-oriented publications. There's a lot going on in the computer world, right now; the task of educating yourself may be a bit daunting, but well worth it in the long run.]*

Dear Transoniq Hacker,

I'm writing because I've owned my **EPS-16+** for almost four years now and I still don't feel like I've gotten the most our of it or used it to its full potential. Even after pouring over the operating manual, some of which I didn't fully understand, and some tricks which I've found out by experimenting on my own, there's still a lot I feel that I'm missing out on. I'm a young musician and my prime interests in music are Rap and R&B and there are a few questions that I have. I've only been a subscriber to *TH* for two months now and I cringe at the thought that I missed out on so many earlier issues. It just so happened that I came across my complimentary issue with the order form while looking through some old receipts and warranties a few months ago. Which now sets up a perfect segue for my first question.

1. What are the best back issues to get for finding the best info to fully understand the EPS-16+'s full capabilities?

2. Is it possible to step write on the 16+ like you can on some drum machines – like the Roland R-8 (which I own)?

3. I'd like to know more about reshaping and creating instruments. I have yet to find just the right drum sounds for the contemporary R&B feel and I love the bass sound of the DYNO BASS on the Ensoniq SLT-3 sound library. But how can I take the plucky effect out of it?

4. How do you go about getting a current Ensoniq OS disk? I still have the (in box) 1.1 version.

5. I have a lot of different sound cards, but how can I make a kit to save to disk with just specific sound wavesamples within an instrument? Say I wanted to make a disk of just snares, kicks or hi-hats, etc.

6. What were those keyboard sounds that were the signature sounds of the Funk Master himself, George Clinton, and Parliament Funkadelic and other '70s era groups? Were they the basic keyboard sounds that they altered with crazy effects or were these built-in sounds? Are they available on disk and where can I get them?

In just three issues of your magazine I have learned invaluable information about keyboards and I intend to keep on learning as much as I can about the ins and outs of the 16+ and take my music to the next level. The *Transoniq Hacker* is just what I was looking for. Keep the instrument creations coming. My comp issue (#69) had a Hackerpatch for "WAS A PIANO" by Mark Clifton that was extremely fun to create – I'd love to do some more.

Yours truly,
D. Brown

[CS – 1)This is a big question. EPS coverage began in earnest with Issue #35; anything published after that is likely to have information in it that you might be interested in (most of the operations described for the EPS and ASR-10 will apply to the EPS-16 PLUS as well).

2) There's no step writing function, per se, on the EPS-16 PLUS. You can use the event editor to insert and delete events, but it's a bit cumbersome to try to use as a step-entry tool.

3) Almost any of the articles on sound programming that have appeared in these pages can be applied to programming your instrument; I'm going to have to recommend the back-issues route again. You may want to give one of our illustrious editors a call and see if they can't help direct you to stuff you can use.

4) Your local dealer should have copies of all the most recent OSs for Ensoniq machines, and is authorized to let you make copies free of charge (bring a blank disk when you go in, though). If for some reason your dealer can't help out, you can contact Ensoniq Customer Service directly at (215) 647-3930; they can provide you with a current OS.

5) You might want to check out Daniel Merrill's article on creating custom drumkits in the April 1990 issue of TH (#58). It should take you through most of the process.

6) Sorry, I don't know. Perhaps one of our readers might have something to say...]

[Ensoniq – 4) The current O.S. for the EPS-16 PLUS is 1.30. Your dealer should have it for copying or call Ensoniq Customer Service at (610) 647-3930.]

Dear Hacker,

I love creating new sounds on my **ASR-10**. So much that I am considering the possibility of marketing my samples. What are the copyright laws concerning sampled sounds? Or simply when is a sampled sound legally mine to sell? For example, I have disks containing Pink Floyd sounds (for example, the slot machine from *Money*, etc.).

Steven Iverson
Whitehouse, Ohio

[CS – "I'm not a lawyer, but I play one on

TV..." Actually, I wouldn't touch this issue with a ten-foot Swede. But maybe Ensoniq can provide some perspective; after all, they've done a fair amount of sampling, I think.]

[Ensoniq – The propriety of sampled sound ownership is a complicated issue – one that we can't cover in this column (nor are we the final "experts" on the subject). We would advise you that any sound that you sample off a commercially released medium (records/CDs/videos) is probably owned by someone bigger/stronger/richer than you are, and you should think twice about releasing that sound for sale.]

Dear Transoniq Hacker,

My problem is with the **ASR-10** sequencer and the manual. Whenever I do a drum pattern on my drum machine be it 4/4 or 8/4 I only want it to be one bar. I only want my sequences to be one bar. The manual fails to explain (as thick as it is) how to set it for one bar. Can it be done? Easy to use sequencer – that's a joke. Can someone give the short ABC course on the ASR-10 sequencer? Song creation is a particular problem as well as mixing down those loud sounds. I can't groove with the click of those lousy ASR drums. I have to use my drumbox.

And what ever happened to Flashbank?

Help, please,
Carl Chestang
Detroit, Michigan

[CS – The initial length of a sequence is determined by the length of the first track you record. If your first track is one bar long, your sequence will be one bar long. If your first track is two bars long, but you want it to be one bar long, press COMMAND, then SEQ/SONG, and scroll until you see CHANGE SEQUENCE LENGTH. Press ENTER/YES, and delete a bar at bar 1 (if you want to delete the first bar) or at bar 2 (if you want to delete the second bar).

If you're really having problems with the sequencer, you might try ringing one of the generous individuals listed in the Transoniq-Net section at the beginning of this issue. You might even want to give Ensoniq Customer Service a call (215-647-3930); after all, that's what they're there for.

The Flashbank was one of those features that was left out in favor of other enhancements when the ASR-10 was designed. I think Ensoniq may have felt that being able to address 16 meg of sample memory precluded the need for the Flashbank for most users.]

[Ensoniq – Flash memory has remained high-priced, and we did not have many customers purchase the option when we had it available. We think it is a cool idea, but if we can't provide it at a price that you are willing (or can afford) to pay we felt it better to concentrate on features you did want – like more RAM.]

Dear TH,

You've heard from me before, but it's time to communicate again, for I've upgraded to an **ASR-10** from my original EPS. Due to the typical financial constraints of a full-time musician (read: no day job) I am having to sell my EPS to another lunatic who will also have his head explode with joy upon owning his first Ensoniq workstation, so the chain goes on...

What can I say? I'm glad to be in debt to have my ASR. It's a quirky thing, but I love it. Love the disk labeling system. Love the sound quality, love the effects. Yet the manual leaves many things to question marks and having to call Ensoniq during bizness hours. Why can't you fellows get the inestimable Mr. C. Salisbury to work for you at manual writing time to "translate the data" to what we little guys can understand?

Why is there no list of ERROR messages so we know what NOT to do before we do it and lose all our work? This could be done, worked up, printed and sent to every warranty holder and Ensoniq regular for not too much cash, boys. It's all right, I still love ya.

Tip: If you're adding uneven-length sequences together or adding bar-lengths that will result in uneven numbers, this may freeze you into ERROR 129. Try adding a blank bar to either sequence with "CHANGE SEQ LENGTH" before appending, then delete the blank bar after you append them together.

I also have a tip for Ensoniq effects-algorithm writers. Let's have an algorithm (if possible) for different types of reverb on each bus – example, Hall on 1, Plate on 2, Light on 3.

And now for a song –
"Broke up with my old lady and bought an ASR-10
God help my baby, cuz I can't go home again!"

From *Another Sad Rag* by
Paul Santa Maria
Miami, Florida

[CS – If you are referring to a list of what the error code numbers mean, such a list is basically meaningless to anyone not intimately familiar with the hoarier aspects of the workings of the machine's software (as anyone who, like myself, has perused a list of definitions of computer error codes can tell you). For example, when my computer crashes and gives me the message, "Bad F-line Instruction," I make a mental note to issue only good F-line instructions, and then go watch TV. This hasn't seemed to help as much as using an actual boot to boot-up my system, so I'm not really sure I even want to know about error codes.

If Ensoniq actually knew all the things that you shouldn't do when using one of their devices, it seems to me that it would be better for them (PR-wise, especially) to simply fix the problem, rather than sending everybody a list of things that make such a product blow up. For example, does an automobile manufacturer send along a set of instructions with a new car saying something like, "driving this vehicle at speeds in excess of 50 mph, with the vehicle pointing at a large, stationary object (such as Rush Limbaugh) can result in certain death for the vehicle operator (and voids your warrantee)."? No. Instead, they head the problem off by installing numerous safety devices such as air bags, which, when you drive into a large stationary object, inflate instantly and have the words "Bad F-line instruction" printed on them.]

[Ensoniq – Entertaining answer, Clark! Actually WaveBoy does provide some parallel algorithms. Check them out.]

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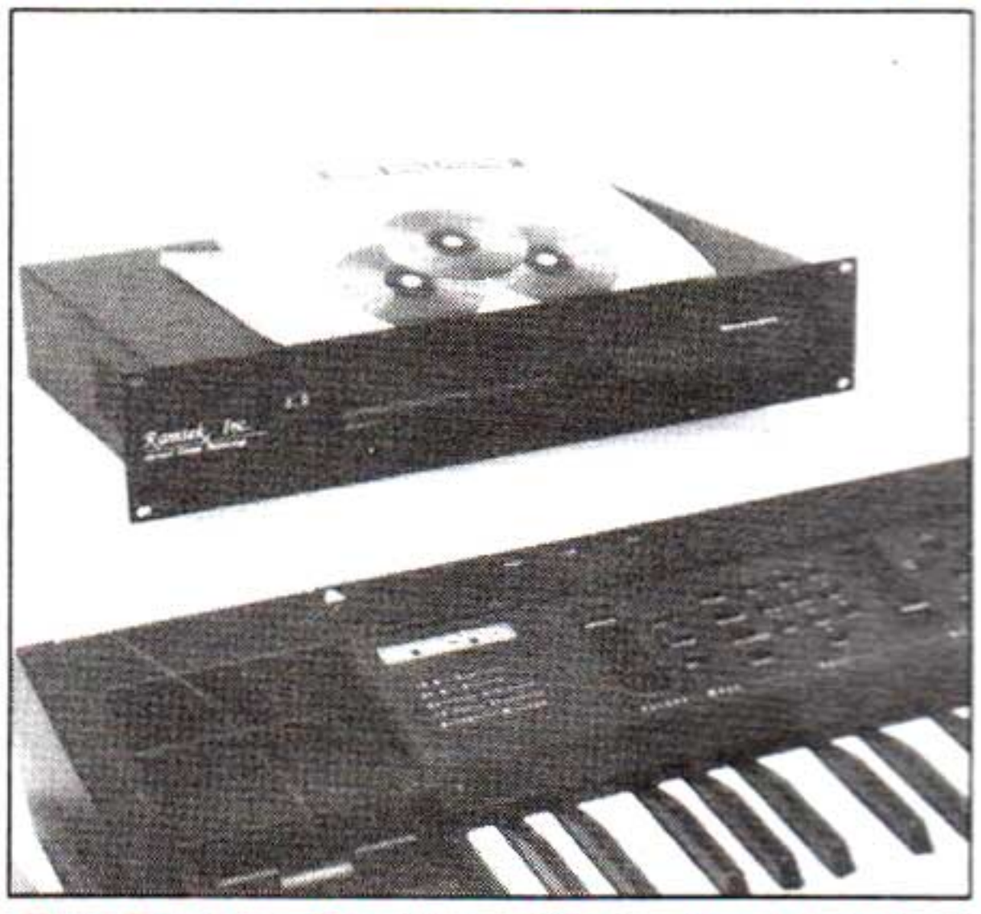

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