

Transoniq

Hacker

So long — and thanks
for all the fish!

The ASR-X Lives!

Craig Anderton



In the fall of '98, the ASR-X became the heart of my "loops and guitar" live act. But it also started a love/hate relationship that, fortunately, has taken more of a turn toward love lately thanks to three cool add-ons: Software version 2.67, the *MIDItools Controller Thinner*, and the Peavey PC1600 fader controller. Here's the deal.

V2.67 tightens up the MIDI timing in a major way (and wow, did the ASR-X ever need it). You'll hear the difference as soon the first measure of a sequence plays. Also, it tightens up the timing of internal timing-related parameters (like when you sync a parameter to the system clock). If you have an ASR-X, you must have this update.

The Peavey PC1600 is a 16-channel fader box (it also has 16 assignable buttons). Feeding its output into the ASR-X's MIDI in, and assigning faders 1-16 to controller 7 for channels 1-16, allows for real-time control over loop levels. This is crucial for "opening up the box," as there's no way the existing interface

allows you to do this sort of thing. Also, because you can program snapshot mixes into the PC1600, it's a piece of cake to move through a remix — mix for a while, then call up a snapshot, then mix some more, etc.

However, slamming a bunch of PC-1600 faders can send out enough data to choke the ASR-X and totally screw up the timing. This is where the *MIDItools* box comes in. This is made by a company up in Seattle called Pavo (www.pavo.com), and first appeared in the book "*Digital Projects for Musicians*," co-written by Bob Moses and Greg Bartlett at Pavo (with help from me). Anyway, this can thin out the controller data enough to keep the ASR-X happy.

And if you investigate these three aspects of the ASR-X, you'll be happier too! I can only hope there will be one more rev that allows you to disable the resetting of the track parameters when a loop goes back to the beginning. This totally messes up the flow when you're doing a remix, and all of a sudden, everything jumps back to its original value. Ensoniq, please, fix this — it would also extend memory dramatically since a loop that repeats takes up little space.

By the way, if you're curious about what I'm doing with the ASR-X, I do give concerts periodically in Europe (mostly Germany) and am starting to do a few more dates here in the USA. However, these ASR-X loops will also be the foundation of a loop library I'm doing for Sonic Foundry's ACID program. This is a little different concept for a loop library, as it also contains several ACID projects of complete songs that I do using the loops. In a way, I'm treating ACID as a music delivery system, but what's cool is that it's interactive. You

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can click on a tune to hear my version of how to use the loops, or mess with the tunes, use the loops in your own productions, etc. Fun stuff!

Now, before signing off, I have to comment on the whole Hacker/Ensoniq thing. First, Jane and Eric deserve nothing but commenda-

tion, praise, and admiration for what they've done with this newsletter. As to Ensoniq, being a synth company is a high-risk business: consider Moog, ARP, Oberheim, Sequential Circuits, Polyfusion, and several others. Having experienced the music industry from the inside and the outside, I understand both the frustration in dealing with the company, as well as the difficulties of running a company under the best of circumstances, let alone in a very high-risk business. I can guarantee you that the people

at Ensoniq have done their very best to deliver the best products they could, and if they didn't meet our lofty expectations as users, the fault is partly in our expectations as well as a company's inability to deliver on those expectations.

PARIS looks like it will survive, which is great news: I think it's a fabulous system. Yes, the Ensoniq we know is gone. So are Atari computers, Prophet 5s, and a bunch of other cool things that for one reason or

another, couldn't hack the cruelly Darwinian process that goes on in any small, low-margin industry. So let's thank everyone for what they've done, wish them the best for the future, and get on with the art of making music. And yes, if my TS-10 ever blows up and I can't get it serviced, I'll be *very* bummed...

Bye, everyone. Thanks again, Jane and Eric, for hosting the party and letting us make a mess of your living room :) ■

Front Panel

RND (🎵)

Hacker Notes:

Well, it wouldn't be the *Hacker* without the occasional correction:

Two paragraphs of Phil Rogers' ASR article in Issue #170 were omitted — which kinda made understanding the article a little tricky. After the subheading titled "Fade In & Fade Out" there is supposed to be only one paragraph, which was omitted. And, after that paragraph, there is supposed to be a new subheading "Making Mono Samples Stereo." That heading and the new section's first paragraph were omitted. Without these two paragraphs, the ensuing discussion on layers etc. seems to come out of nowhere, and some of the directions for setting up what's being built on were left out. Here they are:

Fade In and Fade Out

For atmospheric/environmental effects within a musical or a film context, starting your crickets, or ocean waves etc. at full volume is usually not as attractive or appropriate as would be fading the sound up/in from no sound to what volume level you want for the effect; whether a distant background, or creature sounds that are more in your face. The easiest way to do this is to go [ENV3: envelope type], and move your cursor so "ramp up" shows: now play the sound and you'll hear a good, long fade, actually, probably a little too slow a fade. So scroll a couple of pages over to "times", and edit the leftmost parameter setting, which represents the attack portion of the sound: lower values will make the attack shorter, which in this case is the result we're looking for. For a looped sound that is not of the "loop and release" variety which we discussed in the previous section,

when the key is released, you want the loop to keep playing as the sound fades out, which will happen if you, just as before, program a second release; but probably with a somewhat lower value for the time parameter, depending of course on how slow or how quickly you'd like the sound to fade out. In any case, when you use the ramp-up envelope template, the second release defaults to a relatively quick ramp-down style fade-out, so you'll usually have to lengthen that release as well so that the fading in and fading out of the sample are relatively similar.

Making Mono Samples Stereo

There are many ways to achieve this end — which you choose will depend partly on the sound you are working with as well as its quality, the use to which it will be made, and personal taste. The usual place to start is to copy the wavsample to a second layer, panning the two wavsamples or layers to opposite sides of the stereo field (-99 and +99); then delaying the beginning of one of the wavsamples/layers [edit: layer]: usually a value of around 4 will make a drum loop or many other instruments kind of ping pong: it's a very nice effect. Lesser values will thicken the sound, but won't necessarily spread the stereo field out. The trouble with some of the more amorphous ambient sounds like distant crickets is that a delay can muddy things up, but if you set the value a little higher, it will sound like more than one source—if there is one prominent cricket as part of the mono night sound, it will start to sound like two. Setting it a little higher still and it can sound like the pair of them are rhythmically conversing back and forth.

Other loose ends —

Pat's got his Q & A website up and running. You can find it at:

www.home.earthlink.net/~ptf/. Very nice job — looks a *lot* more polished than our usual Hacker-minimalist approach. The on-going discussion continues...

Our own little web site will remain in a modified form — still linking to other sites, still hawking back issues. Oh, and one of you folks (thank you, J.D.!) finally noticed the Wodent Wheels living at our site — yup, that's my new little project. We'll see.

And in case you've ever wondered, I figured I should fess up now... All these many years the *Hacker* has been put together on a trusty old Atari 520ST ("The Mirage of the Computer World") — now going into a well-earned retirement.

Lots of folks have been including little notes (and even tips) with their renewal cards — thanks to all! Time has been kinda limited for responding, but Jane has put together a letter to you and everyone else (and I'd like to horn in and say it reflects my feelings too). It follows.

Thanks!
Eric

Sentimental Ramblings From a Usually Coherent Woman

Jane Talisman, Editrix

1994 — A woman standing on the front porch. She is waving goodbye with both hands to the college-bound boy and his dad pulling out of the driveway. She is mouthing the words, "Goodbye, goodbye." She stands there for a while after they have turned the corner.

Flashback — The same woman, ten years younger, is sighing at the prospect of having to figure out what to do with this, this *machine* her husband brought home. She

looks over at her beloved piano, heaves yet another dramatic sigh and turns on the keyboard, the Mirage, and starts poking about.

Flash Forward — The child (finally) graduated from college. The Mirage was replaced by an ESQ and then a VFX and an EPS. The man published a magazine/newsletter called *Transoniq Hacker* for 15 years and the woman had a ball editing it.

Damn, this has been fun. For a while there I was almost *famous*. I would say offhandedly, “Yeah, I’m the editor of the *Hacker*,” to the guys in the music stores. And they would, bless their hearts, say things like “Awesome” and “No shit?” I would smile demurely and let them show me the newest wares from Roland, Yamaha et al, letting them draw whatever assumptions they wanted about my keyboard chops. I have none, in fact, being primarily a teacher of classical piano. Oh, but goodness, it was fun.

1985 — I was too ignorant at the time to be properly cowed at what I was planning to do. I had read a couple of articles by this guy and figured he was intelligent and knowledgeable and had a fine attitude in general. Who better to write for the newborn *Hacker*? I nosed around a bit and called him up (at home no less) and said “Hi, I am the editor of the *Hacker*,” as though that would strike

some name recognition. “Wanna write a couple of articles for us?” And Craig said, “Well, why don’t you send me a copy.” We did and he said “sure” and eventually I understood the nature of this coup/honor — and there were more to follow.

It just kept happening. Sometimes subscribers would write incredibly well-crafted, beautifully thought-out incisive letters and I would call them and nag them to write articles for us and they did! And, looking back, it is almost breathtaking to me — their generosity and good-will in writing for the *Hacker* — it certainly wasn’t the pittance we paid. Pat (thank you Pat) and Garth and Sam and Eric and Steve and Jack and J.D and Tom and Kirk and Dan and John and Jeffrey and Clark and Robby and Chuck and Jeff and Dara and Gary and Mark — and all the others. (Parenthetical Mark Clifton anecdote here: I called him one afternoon to clarify some point in one of a series of articles he had submitted and his mom said Mark wouldn’t be home from school ‘til after 4pm. Turns out that this absolute *Hacker star* was 15 years old.)

Third party vendors... Now there’s a whole ‘nother tale — books could be written — hawking ingenious, often brilliant wares for minimal dollars. They appeared out of nowhere. Some of them thrived, some failed, and we all gained by their efforts.

Lest you think it all beer and skittles, let me assure you it was not. Producing a monthly zine has its inherent downsides. Forget vacations, forget nights without phone calls from Poland at 3 a.m. politely requesting subscription information. And musicians, as it turns out, are colorful and creative letter writers who rather frequently require a stern but loving hand to make their epistles actually understandable.

And Ensoniq. Man, now *that* was a company — bunch of totally dedicated hard-working sound freaks breaking their humps to produce an affordable snazzy keyboard for people who hadn’t dreamed they could get their hands on such powerful tools. It really *did* feel like we were all on the same team — we had a common goal here. Sometimes there were times that it seemed we had rather different ideas about how to achieve it — but, all in all, rather few. And it was fine.

We never really thought it would last as long as it did. The *Hacker* was, to me, a perfectly beautiful thing — a source of information lovingly tended to by a group of absolutely outstanding writers and read, in its heyday, by thousands of people in something like 23 different countries. This community, Ensoniq + readers + forum, seemed to bring out extraordinary things in people.

Thank you, readers and writers and advertisers and Ensoniq. It’s been grand.

Goodbye, goodbye. (Both hands waving.)

Mastering Short Loops in the EPS and ASR Samplers

Sam Mims

Just like there are basically two types of people in the world (those who classify everything into two categories and those who don’t), there are also two types of loops in the sampler world: short ones and long ones. That may sound rather insolent, but in truth, this is an important distinction. A short loop is one where the sample is looped on a single cycle of the waveform, or perhaps just two or three cycles. A long loop is everything else.

The differences in how these two types of loops are handled are substantial. The typical loop crossfading algorithms in the EPS, EPS-16 Plus, and ASR, for example, can really save you on a long loop — but they are not

helpful on short loops. Setting a loop start point and then scrolling at random through a multitude of loop end points for that magical quiet spot, a typical practice for long loops, is likewise not going to work with a short loop. If you were sampling during the Mirage era, you probably became well-versed in the agony of short loops — which required tuning your guitar string, or adjusting the VSO (tape speed) of your tape deck to send the exact number of cycles-per-second into the Mirage input so that it would be possible to loop the sound.

Well, I’ve made short loops sound sufficiently frustrating that probably only the really loopy are still reading. In actuality, with the EPS and

ASR, short loops can be quite simple to work with. They can sound extremely clean, and utilizing them allows you to create samples that are absolutely teeny-tiny. (Syntaur’s MegaDisks are a good example of this, with 38 instruments on one double-density disk.)

Short loops work best on samples with relatively simple wave forms. Synth samples typically lend themselves well to short loops, as long as they are not really complex layers of sounds buried in effects. You should be able to loop any analog synth wave fairly easily. Many natural sounds, such as acoustic guitars and flutes, can also work nicely this way.

Getting Prepared

Having sample editing software and a computer setup (such as *Alchemy* or *Peak* for the Mac, or *Sound Forge* or *SampleVision* for the PC) is a good help for this, although not a necessity. The software allows you to see the waveform and place the loop points to span a single cycle in just moments. But it is also not difficult to do it by ear, without visual help.

Regardless of which method you are using, as a first step, turn the sampler's effects to FX=OFF. This will allow you hear more clearly what is going on. Monitoring is of critical importance here. I listen to loops both with good monitor speakers and with professional headphones (AKG K240s) at a fairly healthy volume. And it helps greatly to be in a quiet environment, free of aural distractions. Much of what you will be listening for is very quiet, very subtle, and almost mesmerizing after a while.

Secondly, open the filters and envelopes all the way up. We want to hear everything there is to hear, so don't make it more difficult by having the sound fade or get darker as the note sustains. You can always filter or fade out what you don't like later.

Finally, press Edit/System and scroll to the AUTO-LOOP FINDING page; turn this to OFF. This will allow us to adjust the loop parameters in tiny increments, a single point of sample data at a time. Otherwise, the EPS or ASR will automatically take you to the nearest zero-crossing (the point at which the sample data goes from a positive to a negative amplitude, or vice versa) as you adjust some of the parameters. The auto-loop finding is another example of one of those things that works well for long loops, but not so for shorts.

I find it handy, once I get a loop happening, to load the sample into two Instrument locations in the EPS or ASR-10 (I'll just call it an ASR from now on, as all of this applies to any of these samplers). This allows you to easily compare the work-in-progress to the earlier version of the sample, to make sure you are actually improving the sound. As the loop gradually gets better, I'll resave the sample both to disk and to that second Instrument location.

Setting the Loop Points

The first objective is to listen to the sample and determine roughly where the loop should be in the grand scheme of things. The slap bass from the SP-1200 drum machine provides a good example for us to work with (see Figure 1). After a pretty quick transient attack (the slap, depicted by the tall swings at the far left of the waveform), the BASS GUITAR sample stabilizes into a sustaining bass sound. The loop point should therefore be set somewhere after this attack transient has settled down into the sustaining portion.

You may find, in some instances, that a single-cycle loop won't work for you. Even though you may be able to get an extremely clean and technically perfect loop, the sound may suddenly become too static as the sample transitions from the regular sample data into the loop. If the nature of the sample suddenly

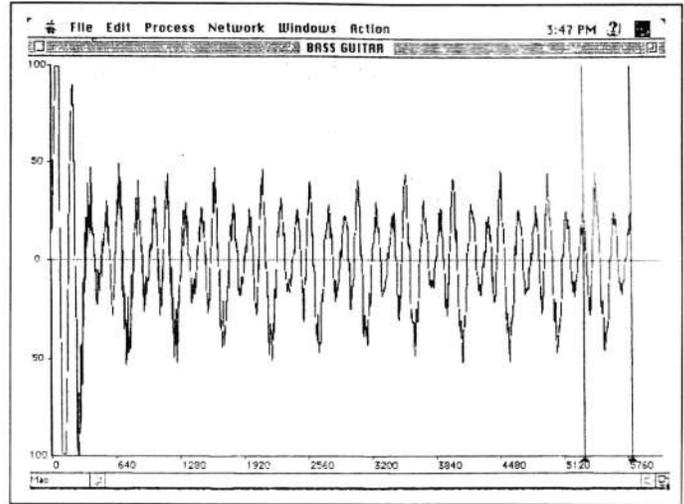
changes in this way, you may have to revert to using a long loop. A choir sample, for instance, would probably exhibit this problem with a short loop, as the rich sound of the multiple voices suddenly turns into an almost synthesizer-like sustain during the loop.

If your sample is a good candidate for a short loop, with a computer editor, it's relatively simple to gaze at the waveform for a few seconds and pick out a single cycle of the wave, as in Figure 1. Typically, you'll want to zoom in the display completely for this, to see the wave in the fullest detail. In the pictured example, it is clear that a single cycle of the sustaining waveform consists of one strong peak, followed by two smaller peaks. Once you have determined where each cycle begins, simply set the loop start point at the first zero crossing of the cycle, and the loop end point at the first zero crossing of the next cycle. (The loop points in the illustration, designated by the vertical lines on the right side, are not set at zero-crossing points. To get started, though, it's easiest to set them at zero crossings initially.)

If you are doing this without visual editing software, set the wave parameters (press Edit/Wave) to MODE=LOOP FORWARD, set the LOOPSTART in the general region that you want to loop (say 50 percent into the sample, or whatever), and then go to the LOOP END page. With the LOOP END percentage (the number in parentheses) underlined, use the data slider to set this parameter to its lowest possible value. Note that the LOOP END point is now only one sample higher than the LOOPSTART point. Also note that it sounds really crazy when you sustain a note.

What is happening is that your instrument is trying to loop on one single sample. Doing this, I have heard everything from almost-supersonic digital buzzing to random playback of all multisamples that were recently loaded (end even since deleted!) from the sampler. Truly wacky, and most entertaining.

Anyway, to find the loop point, set the cursor on the LOOP END fine adjust parameter (the first number, not in parentheses), hold a key down, and press and hold the Down arrow button. You will hear the loop drop in pitch as the loop size increases. When the pitch matches that of the unlooped sample, you have found a single-cycle loop. Fine tune this parameter until the loop is pitched exactly the same as the



non-looped sample.

(Note: Don't use the sustain pedal to hold a note while adjusting the loop points. While it would be nice to free up that other hand, a note sustained with the pedal won't exhibit the changes being made to the loop points. You must physically hold the key down in order to hear the changes you are making.)

In some cases, you may find that the point of perfect tuning does not coincide exactly with the point where the loop sounds the cleanest. In other words, the loop tick goes away, but the sample detunes slightly when it begins looping. Then, if you tune the loop perfectly, the loop ticks again. Here is an illustration of what causes this.

Let's say we've sampled a sine wave from a synthesizer. You don't need to worry about the numbers to follow the logic here, but if you want to play mathematician, imagine that the frequency of the sine wave is 1000 Hz, and that the sample rate of our ASR is a really-low 6.25 kHz (or 6250 Hz). This means that for every cycle of the wave, we are measuring, or sampling, the waveform 6.25 times. Okay, enough numbers — just look at Figure 2 to see what the wave looks like.

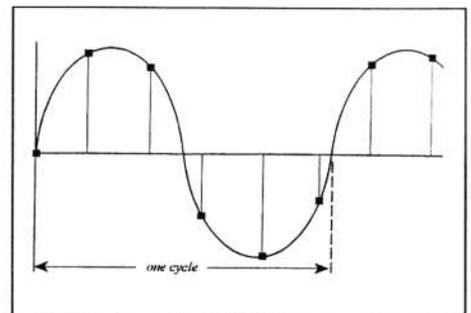


Figure 2. A sine wave measured or sampled 6.25 times per cycle.

Figure 3 shows what the sampled wave looks

like — a “connect-the-dots” picture that approximates the original wave. (Typically, the sample rate will be much higher, and thus the approximation will be much better.)

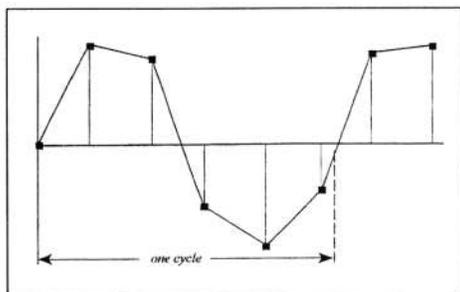


Figure 3. When played back by the sampler, the sine wave is approximated by “connecting the dots” of the individual samples.

Now, let’s imagine that we want make a single-cycle loop of this sampled sine wave. After all, a pure basic waveform should be a cinch to loop, right? Well, the problem is that the ASR is a digital instrument, and it will therefore only allow you to position the loop points at specific increments. In our example (see the illustrations), we can only position a loop point at one of the vertical lines denoting the sample points, because that is the finest increment that the sampler measures. So let’s pick the sample point closest to the end of the wave cycle (see Figure 4).

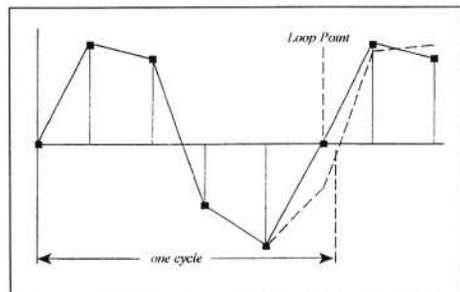


Figure 4. A loop must be positioned at a specific sample point. Using the sample point nearest the end of the wave’s cycle, this loop is now measurably shorter than the original wave cycle — and thus higher pitched.

What becomes clear now is that the distance from the beginning of the wave to the loop point — the length of the sample loop — is measurably shorter than the length of the wave’s original cycle. So when the sample loops, the loop cycle is shorter than the original wave cycle, and that means that the pitch goes up. If our slap bass sample did this, the slap would be pitched normally, and the sustaining bass sound would suddenly go sharp.

So how the heck do you work around that? Fortunately, with a higher sample rate, the problem is minimized, and you can usually find a suitable loop point that is both quiet and

in tune. But with high-pitched sounds, the wave cycle is short, and therefore the number of samples is fewer.

When you can’t find a workable single-cycle loop, try widening the loop to two, three, or more cycles. I have also had luck in converting the sample rate (either higher or lower) using the basic trial-and-error method. This changes the width of the sample increments, and therefore offers more possibilities for finding a loop point coinciding with the width of a single wave. (If we could convert the sample rate of our sine-wave to 6.00 kHz, for example, we would get exactly six sample points per wave cycle, and could easily pick the perfect loop point. Unfortunately, though, most samplers will only allow you to pick from a handful of specific sample rates.)

The real solution is to do what Mirage users were frequently forced into: tuning the source beforehand to a specific frequency determined by the sample rate you will be using. (The Mirage, with its coarse sampling rate, was much more prone to this problem.) In our sine-wave example, instead of altering the sampling rate, we could simply tune the synthesizer a bit sharp, and play a note at 1041.7 Hz. This would give us almost exactly six sample points per wave cycle, the same thing we hoped to achieve by adjusting the sample rate.

If you know you will be doing single-cycle looping, it is a good idea to spend a few minutes beforehand with a calculator, and tune your instruments according to what sample rate you will be using. The math is simple: dividing the sampling rate by the frequency of the note you are sampling gives the number of samples per wave cycle. You ideally want this to be an integer (a whole number). For Figure 2, we see that $6250/1000 = 6.25$ samples per wave cycle. (Note that a loop four cycles in width would encompass exactly 25 samples, so this could be a usable loop point.) But if we were to tune the sine wave sharp before sampling, to 1041.7 Hz, we then get $6250/1041.7 = 5.999$, in other words a single-cycle loop of exactly (or close enough to exactly) six samples.

Okay, you can put away the calculators.

Adjusting the Loop Position

Even if you’ve done everything perfectly — tuned your Minimoog to 1041.7 Hz before sampling that sine wave, used Alchemy to set the ideal loop points etc. — your loop can still tick as the note sustains. Usually, it is a very subtle and quiet tick if you’ve been this careful, but any extra artifact at all can change the timbre of the sound. Remember, any loop artifacts will play at the same frequency as the sampled sound, so they will be perceived as a change in timbre as the note sustains.

The EPS and ASR have a wonderful tool for helping out with this: the Loop Position parameter. Press Edit/Wave and scroll to the LOOPPOS page. You’ll notice that this parameter will be set to the same value as the LOOPSTART parameter; the first number is the exact sample number at which the loop begins (a “fine tune” parameter), the second number (in parentheses) is the percentage of the sample at which the loop begins (a “coarse tuning” parameter). When the Loop Position is changed, the entire loop is moved around, retaining the same exact width (the distance from the loop start to the loop end).

Therefore, once a loop of a perfect single cycle has been set, we can slide the loop around easily without affecting its tuning. The things that are affected are (a) where in the sample the loop occurs, and (b) how quiet the loop is.

By using the LOOPPOS coarse adjust, you can easily position the loop at the ideal portion of your sample. With our slap bass, for instance, we can slide the loop to the perfect point after the slap sound fades into the sustain.

Using the LOOPPOS fine adjust, we can then zero in on the absolute quietest loop. With the first LOOPPOS number underlined, simply scroll up or down until you find the perfectly quiet loop. This does not always occur at the zero crossings — in fact, usually it doesn’t. Figure 1 shows that the best loop for the slap bass begins at the peak of the waveform.

The Wrap-up

Once you’ve found the ideal loop, you can then go to the SAMPLE END page, underline the number in parentheses, and pull the data slider down all the way. This number will automatically be set to be the same as the LOOP END value. Then truncate the unused wave data (press Cmd/Wave, scroll to the TRUNCATE WAVESAMPLE page, then press Enter). This will return those extra bytes to your sample memory, and the block size of your sample will decrease significantly.

You’ll be amazed that, using these methods, a huge synth sample can be trimmed down to just a few blocks in size — and the sound will remain the same! ■

Author’s bio: Sam Mims is the owner of Syntaur Productions, a company which sells sounds and accessories for Ensoniq keyboards. All of Syntaur’s sounds are certified Y2K compliant.

ENSONIQ ACCESSORIES

EPS/EPS-16/ASR/TS Samples

Syntaur MegaDisk 1 & 2	\$17.95/disk
Syntaur Sample Sets, 4 disks per set	\$29.95/set
Sample Kee Master Sets, 3 disks per set	\$24.95/set
Ensoniq AS Sets, 5 disks per set	\$39.95/set
Ensoniq SL Sets, 5 disks per set	\$39.95/set
Ensoniq SLT Sets, 10 disks per set	\$74.95/set
Syntaur "Supersoniq" CD-ROM or Zip Disk	\$169.95
Syntaur "Let There Be Phat!" CD-ROM or Zip Disk	\$169.95
Ensoniq CDR-2, 3, 5, 6, 7, 14, 15	\$199.95/ea
Ensoniq CDR-8, 9, 10, 11, 12, 13	\$99.95/ea

MR/ZR Sounds

Ensoniq MRD-1 disk (180 sounds)	\$24.95
EXP Expansion Boards	Call for pricing

E-Prime/KT Sounds

Syntaur KT Set 1, 80 sounds on PCMCIA card	\$109.95
Syntaur KT Set 1, 80 sounds on Mac or IBM disk	\$34.95
Ensoniq KTC-3 or KTC-4 ROM card	\$99.95/ea

TS Series

Syntaur TS Sets 1, 2 & 3 (60 sounds per set)	\$34.95/set
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KS-32/SQ Series

Syntaur SQ Sets 1, 2 & 3 (80 sounds on disk)	\$34.95/set
Any two Syntaur SQ Sets on RAM Card	\$109.95
Ensoniq SC, ISC, or EX Series ROM cards	\$99.95/ea

VFX/VFX-sd/SD-1

Syntaur VFX Sets 1 & 2 (60 sounds per set)	\$29.95/set
Ensoniq VPC or IPC Series ROM cartridges	\$59.95/ea
Ensoniq VPC or IPC Series disks	\$29.95/ea
Ensoniq VSD Series Disks	\$29.95/ea

ESQ-1/SQ-80

Syntaur Soundsets 1-6 (40 sounds on disk)	\$19.95/set
Syntaur Soundsets 1 & 2 ROM cartridge	\$59.95
Syntaur Soundsets 5 & 6 ROM cartridge	\$59.95
Ensoniq VPC Master Disk (880 sounds)	\$97.95
Ensoniq VSD Master Disk (160 sounds)	\$49.95

Mirage

Syntaur Mirage Sets 1-18 (3 disks per set)	\$24.95/set
Ensoniq SLD-A, B, & C sets (10 disks per set)	\$69.95/set
Soundprocess Disks 1-7 (96 sounds per disk!)	\$19.95/ea
FMT-2 Mirage Formatting Disk	\$17.95

Blank Memory Cards

256k PCMCIA for E-Prime, KT, MR Rack	\$79.95
512k PCMCIA for E-Prime, KT, MR Rack	\$97.95
32k Memory Card for KS-32/SQ Series	\$89.95
EEPROM Cartridge for ESQ-1/SQ-80	\$74.95

Memory, Output, & SCSI Expanders

8 Meg Memory Kit (2 SIMMs) for ASR-10/TS-10	\$74.95
EPS-16 Plus 2x expander cartridge	\$199.95
SQX-70 Sequencer Expander Kit	\$99.95
<i>(for KS-32, SQ-1, SQ-2, TS, SD-1, and VFX-sd)</i>	
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Talking Owner's Manual, cassette & disk, SD-1	\$9.95
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My Time in Paris

Eric Montgomery

In general, creating music for hire or even as a hobby can be pretty time-consuming. You spend time practicing your instrument(s), writing and arranging to find out that only half of the work is done. If you are working on a demo that needs to go to a lawyer or record company representative, you want that project to sound as good as possible. Doesn't matter if you have a 4-track or if you have a DAW. The music production side is totally different and can be as consuming as the composing and arranging. What I am going to cover in this article is a little of my experience while recording an instrumental song(s) in Paris, and what one might do when preparing to burn an audio CD.

Just so you know, I used Windows, a P-200 MMX (not the slowest thing out there, definitely not the fastest) 64meg of RAM and an IDE hard drive. I used a Mackie CR1604 VLZ mixer, some Sonic Foundry, Arboretum and TC Electronics effect plug-ins, an 8-in card (A8iT), one EDS-1000X and a Paris III system.

Plug-Ins

An effect plug-in is a software program that runs inside of a "host" software program (like Paris or a sample editor) and relies on the computer or host CPU for carrying out its commands. Something like the TC Native reverb or the Antares Auto-Tune plug-in can use up a lot of CPU power. Things will become sluggish and possibly you may experience lockups and errors (depending on the speed of the CPU and the amount of RAM you have). Maybe a simple chorus or EQ will be less demanding of the CPU. You will be able to use more plug-ins that are simple ones, and obviously less plug-ins if they are more complex effects.

Connections And Setup

Obviously I had to do my hardware and software installations before beginning. The EDS-1000 only works in a PCI slot on the computer. I gladly took out a networking card that I no longer needed and installed the EDS-1000 into that slot. I also installed a second EDS-1000 (X) and made the proper connections between the EDS's with three ribbon cables according to the manual. The EDS-1000 and EDS-1000X are identical cards. The only difference between an EDS-1000 and an EDS-1000X is that the X version comes with the additional cables needed to connect two or more cards together. You might ask, "Why would you want two EDS-1000 cards?" The answer would be that you get 16 aux's instead of 8 and 32 live tracks instead of 16. What I mean by "live tracks" is that in Paris, you get 16 active or live tracks to use until you have to submix (that is, unless you have two EDS cards and then you get 32 live tracks). Any Paris system can go up to 128 tracks no matter

what I/O device (Interface 2, Interface 442 or Interface MEC) you have connected to the system. The way the Paris software gets you to 128 tracks is to sub-mix each group of 16 to get to 128 (8 sub-mixes). Something that is great about Paris, is that it can de-mix a sub-mix. You are not locked into what mixer, effect, or even audio track selections or recordings you have for a sub-mix. They can always be changed and the sub-mix updated.

I installed the A8iT 24-bit 8-input card into my MEC. Be sure that you get the card to slide into the thin white guides that are inside of the MEC. I connected my MEC and C-16 controller to the top (#1) EDS-1000 card and powered up. I used some floppy disk installers that I downloaded from the Ensoniq website: www.ensoniq.com (V1.81b). All was okay until I noticed that my C-16 controller faders were not working (nulling). The transport controls did not work either. My problem was user error. I didn't uninstall the older version of Paris that was on the system first. I also needed to install the most current version of Direct X and Media Player. It pays to read the directions on any download... I installed all of my plug-ins. I did something to be sure there would be no problems with Steinberg Cubase and with Paris. I found that Cubase had some effect plug-ins as well. I wanted to take advantage of the effects, so I created a new folder on my hard drive and named it VST (Paris not only uses Direct X plug-ins on the PC, but uses VST plug-ins too). I copied the appropriate .dll files and pasted them into the new VST folder I created. After launching Paris, I then set my VST Path (Project Window- Settings) to that folder named VST.

Some of you have got to be wondering about how I used the Mackie mixer with Paris. Here it goes. I figured, hey, I don't want to change the way I work when I am only sequencing or doing post recording work. I didn't want to have to launch Paris and use it as a mixer just to work out a sequence. How do I get all of my keyboards plugged into Paris? Patch bay? NO, no, triple no for me. Patch bays confuse me. If you do not have the luxury of a mixer with sub groups, that may very well be what you have to do. I was lucky. What I decided to do was to take advantage of the sub grouping on the mixer. I connected each sub group output of the mixer to its own input on the A8iT 8 input module that was in the MEC. With these connections, I was able to connect all of my keyboards to my mixer and continue to work as I wanted and I could also send certain inputs of the mixer to inputs and tracks I wanted to in Paris without doing reconections. This was also a cool setup because I got the chance to use my mixer as a phantom power supply, mic preamp, and a means of gain or gain reduction on the inputs going into Paris.

Sequencing and Tracking into Paris

I started with a song that I had already sequenced and arranged. I tried syncing a MacHci to Paris and I didn't like what was happening. I noticed these little hiccups in my sequences. I then simply "slaved" the Mac to incoming MIDI and not MTC, still had the hiccups. It was not a Paris problem. It was a combination of several things like an old, archaic version of Logic that does not like to slave to anything and not enough RAM on the Mac. So, I figured, either buy a newer version of Logic and more RAM for the Mac or think of something. What I ended up with was this. I added one bar to the beginning of the sequence. I added a click to the first blank measure. I recorded each track into Paris with a metronome type click at the beginning of each track. After that was completed, I opened the Editor window in Paris. I chose the magnify tool and zoomed in to look closely at the tracks. I then used Nudge and Slip in Paris and lined up the clicks. It was all good!

If I noticed some sort of noise on a track or didn't like what was played, I would re-cut the track again until I got it right!

Mixing

Now I was ready to start blending the volumes of the tracks. I got them pretty close to what I thought sounded good. If I noticed some track that was giving me some volume trouble, I compressed it. As an example, my kick drum was kind of soft, then on occasional hits, it would peak out and be really loud. I compressed it at a 4:1 ratio (if it peaks, it will allow that part of the sound that peaked to be 1dB louder for every 4dB increase in volume).

I added some "butt" to the kick (Translation: bottom end to thicken the kick drum sound. Yeah yeah, that was a pun.) by boosting 80Hz. I used an effect plug-in for that simply because of my lack of knowledge of Paris. I wanted to boost 80Hz only (I wanted something very narrow). The EQ in Paris is normally set to Band Pass (meaning that a few other surrounding frequencies will also be boosted when a selected frequency is boosted, that's normal to all EQ's). In my plug-in I could make the bandwidth narrower. In Paris, Q is the bandwidth control I needed. I could have gotten it as narrow as I wanted it to be in Paris without having to use a plug-in.

I also wanted no high end to come out on that track. I could have used either a Shelf EQ or a Low Pass Filter. Shelf EQ means simply what it says, when you boost or cut a frequency, it boosts or cuts other frequencies along with it in the shape of a step or shelf. I used a plug-in to get a Low Pass filter, but it all could have been done in the Paris EQ. There are some squiggly lines in the EQ section called Filter Mode, duh! The Low Pass filter means exactly what it sounds like, it is a filter that only lets low frequencies pass. The High Pass filter is the direct opposite of the low pass in that it only lets high frequencies through.

I also added higher end EQ to add "air" to some of the tracks by boosting 16k around 3 to 6 dB. The Paris EQ is more advanced than I thought. Got to read that manual more often!

After this, I decided to pull out some music that most resembled the style of music I was working on. I listened to the mix of that music and compared it to what I had. I know that it is next to impossible to get your mix to sound like a finished CD (on a completed CD there was probably some mastering (EQ and Compression over the entire mix) but get as close as you can. When I say, "compare and try to maybe match elements of a mix," I mean that there are some elements to break down and consider. For example, is the snare drum in your song as bright (EQ) or as loud as the one on the CD? Try boosting an EQ about 5 dB and sweep across the frequency range to find out what certain frequencies do. Do the same for pads, piano, guitar and other instruments. Another trick that took me a long time to understand is panning. I have heard some demos where a person had the snare on the left channel and the kick on the right channel. Unless you are going for some sort of effect or brake down in the tune, I probably would not recommend something like that. You want your mix to be even in the stereo image. That also does not mean that you should not be creative with panning. You can for example, pan all of the drums to one channel and pan the bass to the other channel. Put a saxophone and trumpet dead center. Now you got that old jazz record panning setup! As another example, I always pan pads, strings and electric pianos "wide" to get the full stereo image. I always pan the acoustic piano wide as well. The Perfect Piano sound I use in my MR Rack is so choice! I want to take full advantage of its panning as well, unless I want it slightly panned to one side. Then, I'll pan one channel full R100 and the other at say L75 or L50. I heard that on a CD once and liked it so much I mimicked it!

It is probably a good idea to pan kicks, snares and bass synth and bass guitar dead center. You can pan hats and percussion slightly left or right (of course that depends on your tastes). I sometimes pan percussion a little wider to give them their own space. If your mix sounds all "jumbled up" (not very open), try panning some instruments a little. It will go a long way! Remember that in most good mixes, each instrument has its own space and is not fighting with

others (volume and frequency range).

You really only have a few spaces to mix in, left, right, close and far away. We covered some thoughts on left and right panning and covered some basic thoughts with getting a sound to stay "put" with compression. The distance part can be covered with reverb. The wet/dry mix (or balance) of a reverb can determine the distance (close or far away) of that track to the listener. A good example of close mixing is some recent Peter Gabriel, like the CD US. There is a lot of "close" mixing on that CD. Some far away mixing could be something like, most anything from the '80s. A bunch of '80s rock and even dance and R&B had lots of gated reverbs on the drums. Nowadays, lots of things are gritty and close, not to many reverbs with long decays unless it is used as an "effect." As a recommendation, try to avoid reverb on your bass sounds and kicks, it makes the mix mushy sounding. Of course, it depends on if you are going for a certain dramatic effect and your tastes.

I was sure to save my sessions as new names as I went along in Paris with different mixes. I wanted to be able to go back to the previous version in case I made a mistake. Do not try to do it all in one day. Recording (tracking) and mixing in one day is probably the worst thing you can do. Your ears will be tired, you will be tired. Start fresh on another day.

I normally make changes to a mix and then put it onto a cassette. Run on out to the car with a notebook and take notes. Maybe the snare is too loud, the bass guitar needs some EQ to thicken it up? The Rhodes sound is just buried behind the pads? Take those notes back to the mix and work on it. Maybe pan the pad different from the Rhodes to give it space and make your other necessary adjustments. Go back to tape and back to the car, or a boom box, or even use two sets of speakers in your studio to A/B the mix.

Burn that CD!

In my case I had to get some help from a friend to burn an audio CD. Since I am on a Windows machine, I had to use different software programs to get the whole setup ready to go.

First, I had to do a Bounce to Disk in Paris. You cannot burn an audio CD from the .paf files on your hard drive. They are just your separate

tracks of the project. The Bounce to Disk function creates a Left MONO and a Right MONO file on the hard drive. When you do the Bounce to Disk, it is probably a good idea to set the file type to .wav. That is the file-type that most editors and CD ROM burning software's use on a Windows computer. This is *only true* if all your files are in 16-bit format! If you have 24-bit files in your project and bounce to .wav, the mix will be truncated to 16-bits. This is a bad thing. If you have 24-bit files, you'll need to bounce to 24-bit .paf mix, then use a utility (like the free one available on the Greatideas Paris site for PC <http://www.greatidea.com/paris/>, or Sonicworx for Mac) to DITHER the 24-bit mix to 16-bits. You can dither to any file format, .wav, .sd2, .paf, etc. Those two files have to be "interleaved" into one stereo file by a sample editor like Wavelab Lite (which comes with Paris). Wavelab Lite is cool also because it opens .paf files. The .paf file is the native file format of the Paris system.

After the stereo file is created, you then will want to use your sample editor to truncate the beginning of the stereo wave. You don't want to burn a CD with the blank space at the beginning of each song, do you? Nope. So after you trim it as good as you can, then do the same at the end of the file. If you didn't add a fade out in the automation of Paris, then you will have to do one here in your editor.

In my case I had to do some volume matching and I auditioned the way the CD was going to sound using CD Architect. I tried different playing orders of the songs and adjusted the volume on the songs to get an even flow from song to song. In CD Architect, go to write disk and that's it!

Believe me when I say that at first this seemed like a huge wall to have to climb. Not so, like anything else, the more you do it, the better you get! My first mixes and songs really left a lot to be desired. I am sure I will say the same thing a year from now.

Remember to make music, be funky, think EN-SONIQ! ■

Bio: Eric got his Paris system and computer about three weeks ago and is having a ball!

Ensequencing & Waveform Mutilation 101

The Final Chapter: Testing Your Transwaves For Resonance

Jack Stephen Tolin

Transwaves — the final frontier. These are the voyages of those who seek out resonance in new waveforms, add new mutilations, boldly synthesizing where no musician has done so before.

Boy, does this take me back. I remember when I saw the first advertisement from WAVeBOY

featuring a resonant filter for the ASR-10 and EPS 16-PLUS. I thought, "Why on earth would Ensoniq ship out such a great sampler without all of its features enabled? If the thing has got resonant filters, why not include them? Why should anyone have to pay extra for what the sampler can already do?"

The reason it bothered me at all, aside from the fact that I own an ASR-10 with no resonance included, was that none of the newer Ensoniqs have resonance, otherwise known as "Q." The SQ-80 and ESQ-1 have them, but having sold my SQ-80 years ago, I am somewhat at a disadvantage. How do I regain but a taste of those years of old (without having to purchase another SQ-80, that is)?

On the newer SQ or KS series synthesizers, even the VFX or TS for that matter, we have all heard about how the transwaves can somehow simulate resonance. The problem, as I originally saw it at the time, was that simulating resonance

“as” a sound was a completely different situation than simulating resonance “on” a sound. Can the transwave stand up to the realistic resonance test?

This brings us to my latest experiment. The purpose of this test is to see if we can break up a transwave in such a way as to produce a realistic-sounding resonance. To join me, first program the included patch, “TransTest4Q,” into your synthesizer. If you have some other kind of synth with transwaves in it, you could pretty much duplicate the same kind of effect. Just make sure your transwave is one that sounds as much like resonance as possible. You may even want to wait until the rest of the patch is programmed before deciding upon a particular wave. Also note that you will be programming with select voice on ALL. This will allow you to have three with which to experiment by the time you are done. (At this time, in the Amp bank, enter the “1st” column of settings.) This is only a test. SQ-1, 2, KS, etc.

HACKERPATCH Program: TransTest4Q

By: Jack Stephen Tolin

NOTES: LFO modulates waveform of transwave. ENV2 and WHEEL modulate frequencies filtered. ENV1 will be used to modulate both waveform of transwave and frequencies filtered.

WAVE	select voice: ALL	FILTER	filter 1: 2LoPass
wave (class): TRANSWAVE	filter 2: 2HiPass	fc1 cutoff: 127	
(wave): RESONANT 4-X	env2: -65	fc1 kbd: +00	
delay time: 000	mod: WHEEL	*: -75	
(direction: [N/A])	fc2 cutoff: 000	env2: +65	
start index: 50	fc2 kbd: +00	fc1-mod-fc2: OFF	
mod: LFO	ENV2	initial: 00	
*: +50	peak: 06	break: 99	
restrk decay: 00	sustain: 00	attack: 00	
PITCH	decay 1: 25	decay 2: 00	
octave: +0	release: 16	levV: 13	
semitone: +00	levV: 13	atkV: 13	
fine: +00	vel curve: QUIKRISE	mode: REPEAT	
env1: +00	kbd track: +00		
lfo: +00	AMP	(1st)	(2nd)
mod: <OFF>	initial: 99	32	
*: (N/A)	peak: 99	99	
kbd tracking: ON	break: 75	54	
glide: OFF	sustain: 00	99	
glide time: (N/A)	attack: 00	17	
ENV1	decay 1: 50	22	
initial: 00	decay 2: 70	80	
peak: 50	release: 30	16	
break: 99	levV: 19	19	
sustain: 99	atkV: 00	06	
attack: 50	vel curve: CONVEX	QKRISE	
decay 1: 50	mode: NORMAL	NORMAL	
decay 2: 40	kbd tracking: +56	+28	
release: 16	OUTPUT	vol: 99	
levV: 00	boost: OFF		
atkV: 00	mod: <OFF>		
vel curve: (N/A)	*: (N/A)		
mode: NORMAL	kbd scale: +00		
kbd tracking: +00	key range: A0-C8		
LFO	output bus: FX1		
lfo speed: 10	priority: HIGH		
noise rate: 00	pan: +00		
level: 99	vel window: 000		
delay: 00			
mod: <OFF>			
wave: SINE			
restart: OFF			

(Pause.) All right. Now that we are finished programming the patch, let's get started.

First thing's first. Go to Wave select voice and change ALL to ONE. Turn two of them to OFF. We can fiddle around with the other two oscillators later. It's important to hear the single changes as we make them singularly. Select the one that is ON that is not turned OFF, if you have not done so already.

Go into the Filter and (temporarily) set both settings for Env2 to +00. Hold one of the keys down now. What you are hearing is the basic sweep through of the transwave. According to the Musicians Manual, a “Transwave consists of many single-cycle waveforms, each with a different harmonic spectrum” (page 5 — 10). What we're doing is beginning our Start Index at a value of 50 which is about dead center of the transwave. From there, we are moving through the wavetable within the transwave using the LFO which is going up and down — hence the SINE wave — from that start point of 50. You can hear the LFO slowly sweep through and catch all the nuances as they change.

If you play staccato 16th notes on one key, you will get an idea of what the many different single cycle waveforms sound like as they begin the sound. Of course, when doing this, the waveforms themselves will be chosen randomly since the LFO Restart is set to OFF. This makes a sound somewhat reminiscent of those early '70's analog synthesizers.

If you go back to the Env2 settings that we changed recently and set them back to their +or-65 values, we'll hear an extra filter effect. If you remember in the old days, changing the filter frequencies always changed certain aspects of what was resonated through Q. The Envelope 2 settings were intended to reveal what kind of effects took place by changing the frequency allowance of the transwave. The minimum and maximum frequency boundaries change with an LFO-like effect. The effect is somewhat doubled, however, since the same LFO effect is working on both the top and bottom at the same time. Think of it as a bottleneck for frequencies — the only frequencies coming through the neck at the point of maximum LFO effect are the ones in the middle. For an alternative, try playing this sound with the modulation wheel set halfway.

If you would like to use this patch as a program in its own, it would even be possible to synchronize the sound to music. You can try this in one of two ways. You can try synchronizing the LFO settings to match your tempo, or you can try synchronizing your Envelope 2 settings to match your tempo. Of course, another possibility is to cheat. Just re-key the note so it starts when you want it to. You may want to adjust your LFO Speed as well.

Create a 4/4 sequence with a tempo of about 105 with TransTest4Q on the first track. Program in a 16th note arpeggio: C3-G3-C4-G3 and so on for about two measures. Now duplicate

the first track on the second, but with the patch, Dynamic Grand, ROM 00. Transpose track two up an octave (+12 semitones). Go to the Mix bank, page one, and cut the volume of track one to about 85 or so. Now press Play on the sequencer. Hey, not bad, huh?

(Note: Keep in mind if you are pressing Play in the sequencer section without exiting your patch edit, it may sound different if your patch Effect is different from your sequence Effect. This may cause a difference in audible sound edit aspects. See more about this below. If you are going to exit a patch edit prior to listening to your sequence, always remember to resave your patch. Also make sure to keep track of where you resave it. Double checking is a good idea to make sure you don't overwrite a completely different sound than the last edit.)

Wow, does this mean that we're getting close to resonance? With this particular transwave I've chosen, I believe we've come fairly close to a general use resonance. In my own opinion, I believe that some of the transwaves do not sound anywhere near as realistic or comprehensive. ELECTRO-X sounds good but is rather tinny. Many of the others are more deep-ended in the tonal spectrum for my personal taste. RESONANT 2-X, RESONANT 3-X and RESONANT 4-X work the best for this test.

If you would like to take full advantage of the Preset for adding resonance to some other sound, you will probably want to turn your Env2 settings back to +00. Press your Sequence Select button to back out of Edit. Now, click on track two and double click on track one. Now you can play your piano with resonance.

Let's try a different one. Go back to TransTest4Q and change the transwave to ELECTRO-X, the tinny sounding one. Resave the patch. If you hit Play on the sequencer now, it may not sound that bad after all. But press Stop and try playing your piano now. Hmm...

How about changing the patch on track two to ROM 74, Classic Bell. Well, it sounds more to its own liking. Whatever that means.

Back to the drawing board over in TransTest4Q. Go to the Amp bank and program in the column of settings marked “2nd.” Resave the patch when you are done. Go over to track two now, and replace the patch there with ROM 07, L.A. Brass. O.k., so it probably sounds better in the upper registers. Hit Play. Sound closer to what we're looking for? You can change the transwave back to RESONANT 4-X and press Play again, but do so at your own risk.

Feel free to experiment layering the new patch with other old ones. You may need to make adjustments depending on what kind of attack and decay each of the companion sounds may have. This is why this test patch was programmed in the 1st column with a piano-type envelope and in the 2nd column with a brass-type envelope.

An alternate way of testing your transwave for

resonance is to modulate your Filter with ENV1 instead of WHEEL at an amount of -89. At this point, set your Envelope2 amounts to +00 each in the Filter bank. In the wave bank, set your Start Index = 00, Mod=ENV1 * +99. If you are going to use this particular example in conjunction with your sequencer, cut the volume for track one to about 69 for about as subtle as you can get with it still being audible. Suit to taste.

For our final trick, go back to our original version of TransTest4Q. Resave. Keep track two the way it is. I prefer it with the piano. Slow the tempo down to 88 for your 88. On track one, count 1, play a C minor chord and hold it for the

length of the measure. Useful, no?

If you want to add some embellishment to the patch and make it sound more full, turn all three voices on, set the pan in output all the way negative for the first voice, set the pan in output all the way positive for the third voice, and you may even want to turn the second voice off. This will cause a stereo effect. If it does not, check your Effect selected for this patch. Some effects do not allow audible panning. Reverb is usually a safe call.

Certainly, what we have learned here today is that resonance has not been completely elim-

inated from our transwave synthesizers. Using the sequencer, a little layering can go a long way in bringing back the Q'ed up sound from yesteryear. To be perfectly honest, I was surprised, myself, to discover this. I guess these Ensoniq boards are still full of surprises. ■

Bio: Jack is a secret agent for Sprint near Kansas City. His favorite pass-times include Nintendo video games and producing music with the SQ-1 PLUS 32 voice and the ASR-10. P.S.: For those of you who have ordered the SQ-1 tape, know that distribution of the tape will be delayed as a result of needing to replace the SQ-1's battery.

Hackerpatch

Sleigh Bells

Jack Carder

I submit this "almost timely" patch in honor of the end of our adventure.

Simple is best! Many patches that I've done for myself and others are soooo complicated. It seems that all the dif-

ferent things that we *can* do to sounds *are* done. Sometimes this leads to excellent sounds... But what about simple?

Program Sleigh Bells into your rig and

hear how nice a simple sound can be.

All three voices have a small difference in tuning. All other parameters are the same. No tricks. Maybe I'll place this sound into a preset and add the sounds of the "Budweiser Clydesdales" (and snowfall?) for the authentic sleigh ride.

Love you people — thanks!

SQ, KS, KT Prog: Sleigh Bells

By: Jack Carder

WAVE	1	2	3
Select Voice	On	On	On
Wave Class	Waveform	Waveform	Waveform
Wave	SynthBell	SynthBell	SynthBell
Delay Time	0	0	0
Wave Direction	-	-	-
Start Index	-	-	-
MODSCR	-	-	-
MODAMT	-	-	-
Restrk Decay	36	36	36

PITCH	1	2	3
Octave	+3	+3	+3
Semitone	00	+03	+04
Fine	+07	+05	+07
ENV1	00	00	00
LFO	-01	-01	-01
MODSCR	Off	Off	Off
MODAMT	00	00	00
KBD Ptch Track	Off	Off	Off
Glide	Off	Off	Off
Glide Time	00	00	00

ENV1	1	2	3
Initial	00	00	00
Peak	00	00	00
Break	00	00	00
Sustain	00	00	00
Attack	00	00	00
Decay 1	00	00	00
Decay 2	00	00	00
Release	00	00	00
Vel-Level	00	00	00
Vel-Attack	00	00	00
Vel Curve	Linear	Linear	Linear
Mode	-	-	-
KBD Track	-	-	-

LFO	1	2	3
LFO Speed	00	00	00
Noise Rate	00	00	00
Level	44	44	44
Delay	06	06	06
MODSRC	Off	Off	Off
Wave	Tri	Tri	Tri
Restart	On	On	On

FILTER	1	2	3
Filter 1	2Lo	2Lo	2Lo
Filter 2	2Lo	2Lo	2Lo
FC1 Cutoff	127	127	127
ENV 2	00	00	00
FC1 KBD	00	00	00
MODSCR	Veloc	Veloc	Veloc
MODAMT	+15	+15	+15
FC2 Cutoff	115	115	115
ENV2	00	00	00
FC2 KBD	00	00	00
FC1MOD-FC2	On	On	On

ENV2	1	2	3
Initial	00	00	00
Peak	99	99	99
Break	85	85	85
Sustain	27	27	27
Attack	47	47	47
Decay 1	44	44	44
Decay 2	67	67	67
Release	48	48	48
Vel-Level	99	99	99
Vel-Attack	00	00	00
Vel Curve	Linear	Linear	Linear
Mode	Normal	Normal	Normal
KBD Track	00	00	00

AMP	1	2	3
Initial	74	74	74
Peak	99	99	99
Break	75	75	75
Sustain	00	00	00
Attack	00	00	00
Decay 1	50	50	50
Decay 2	70	70	70
Release	54	54	54
Vel-Level	19	19	19
Vel-Attack	00	00	00
Vel Curve	Convex	Convex	Convex
Mode	Normal	Normal	Normal
KBD Track	+56	+56	+56

OUTPUT	1	2	3
VOL	77	77	77
Boost	Off	Off	Off
MODSRC	LFO	LFO	LFO
MODAMT	+21	+21	+21
KBD Scale	Zone	Zone	Zone
Key Range	G5-C7	G5-C7	G5-C7
Output Bus	FX1	FX1	FX1
Priority	Med	Med	Med
Pan	+56	+56	+56
Vel window	000	000	000

EFFECTS CHORUS AND REVERB

FX-1	44
FX-2	15
Decay time	78
HF Damping	13
Chorus Rate	30
Chorus Depth	19
Chorus Center	28
Feedback	00
Chorus Level	33
MOD (Dest)	Decay
BY (MODSRC)	Vel
MODAMT	-40

CD: Pair a' Dice

Artist: Near Vhana

Here we are at the final issue of the *Transoniq Hacker* and it's time to close the doors to the *Basement Tapes*. I would like to express my heartfelt thanks and gratitude to the scores of wonderful individuals who have taken the time to put their hearts and souls on the line by sending in their tapes and CD's (and the occasional vinyl) of their music to be run through this wringer. My life has been enriched significantly through the many contacts I have shared with these sincere and earnest musicians. I have had the true privilege of listening to a lot of very, very great music, not to mention been entrusted with conveying to the rest of you something of what these artists have attempted to communicate. My goal has always been to describe, evaluate, and learn from the musical projects of these brave and creative souls. I know that I have learned a lot from you all.

Most of all, I thank Jane and Eric for their generous, fun, creative, easy-going, brave, and independent spirit, which has enabled the *Transoniq Hacker* to remain the rallying point for us Ensoniq keyboard enthusiasts. You've been like our mom and dad all these years!

In my final review, Jorgen Teller says, "If I don't do this solo-CD now it may never happen." Fitting words; heed them! If you have music in your heart, on your hard drive, zip drive, cassette idea tapes, SRAM, sequencer cartridge, notation program, or manuscript paper... produce it! Don't put it off. Don't wait until it's perfect. Just do it. I'll be happy to listen to anything anybody wants to send me, and doubly happy if you want my ideas about it!

Now here's our final two Basement CD's...

CD: *Pair a' Dice* (c) 1997 Ninth World Music

Artist: Near Vhana

Equipment: Several analog and digital synthesizers (namely a modular-analog "Formant" synth, on the digital side: Korg Prophecy, Roland MT32, Yamaha FB-01 and an E-MU Morpheus), all with self-designed sounds, driven by a self-made program by the time of recording the album running on

Atari (now on a Mac emulating an Atari). Also used: a multi-effect box with direct access to the parameters via a fader-box. Last but not least there is the Omnichord, a cheasy instrument (designed after an auto-harp), that has remarkable musical qualities when opened and played with the fingers making contacts on the circuit board (through skin resistance), my favorite "raw electronics" instrument, you can hear it on track 5: "All Age Fun."

Contact info: Joker Nies, Huettenstr. 20, D-50823 Cologne, Germany. Tel: +49(0)-221-550-4995, Email: joker@netcologne.de. Jeffrey's homepage and a link to some MP3s to get a taste:

<http://www.jazzhouse.org/morgan/>

http://www.mp3.com/artists/22/pair_a_dice.html

<http://www.mp3.com/artists/24/electroshock.html>

Near Vhana consists of Jeffrey Morgan on alto saxophone, and Joker Nies handling synthesizer, "MIDlotics," realtime processing, and omnichord. When asked about his music, Joker replied:

"All the music on the CD is free improvisation, which means we don't play compositions or plan on anything concrete (well, actually I have to plan in certain ways, how I will use my equipment and program kind of a "starting situation"). This starting situation may be of some influence on the overall mood of the piece, but away from the starting point it can evolve in any possible direction. As you have noticed with our project name, we use chance as a source of inspiration. This goes on with the titles of our albums and tracks which are all 9 letter words, thrown with dice that have letters on them. Another aspect of our musical communication is the tension between the physical and emotional approach of the saxophone against the rational-technical image of my equipment."

When asked about the intentions behind this project: *"All we want is spread the subliminal message, present on all of our tracks, that is: 'I like this music, I want to buy a second CD, I must play this music for all my friends, I want to donate all my money to*

these divine musicians.' Unfortunately, through the media-advertising-war people seem to have developed a solid resistance to our message, so we still can't retire on a remote island yet..."

And when asked if he had anything he would like to add, Joker said: *"I'm currently working on songs and soundscapes for a third radio-play in collaboration with Ernst Gaida-Hartmann and author Edgar Lipki entitled "Manson Revisited" which airs in November this year. I'm also currently recording a CD with Wolli Kaisers Timeghost project, where were getting our hands on a selection of Small Faces songs, mutating them into the new millennium. A future project will be the collaboration with a string trio where I will mostly be real-time-processing the 3 players with my new tool, a Kyma Capybara audio-DSP mainframe. and, of course, BUY OUR CD!"*

Here's what's on "Pair a' Dice":

1. *Cage for Ki* — This opening track is a potpourri of organic and synthetic aural textures in free-form expression. What this means is, it sounds like a hodge-podge of saxophone bleeps, blaps and farts, mixed with a hodge-podge of synthesized bleeps, blaps and farts. The various elements playfully tease, mimic, and play on each other without discernible thematic elements. The upscale "tempo" (if such avant-garde musings can be said to have any meter or tempo) seems to be the common thread: all elements are played fast. The result is a conversation between wind and electricity, both filtered through human elements which color the sound with earnest whimsy.

2. *Scary Nite* — It starts out sounding like the first track, only slower, but with a slightly ominous synth drone. The title predisposes the listener to listen for frightful sound expression, but the saxophone "voice" sounds more like the manic ravings of a teen horror flick star trying to scare someone and be funny at the same time. The sax vocalizations are too confident to communicate fear-someness. If you listen without being biased by the title, the focus is on the sax; it sounds like that desperate attempt to yell or scream that sometimes occurs in dreams where you just can't articulate any words no matter how hard you try. But words aren't necessary to convey angst, and this track does so.

3. *Cirey Jets* — Following the same formula,

"Cirey Jets" adds a more percussive layer underneath. "R2-D2"-like pops and squirts chatter with the sax, over a didjeridoo-sounding drone. This time, there is more of a sense of progression in the piece, with the elements building to a crescendo, accented with more percussion sounds. At times the sax comes close to playing very short melodies. Almost. A nice variation.

4. *Ten Spregs* — This time there are layers of sax, processed ingeniously with ping-pong delays and other abstruse effects. Glass bell pads morph into computerized tron sounds, but this Near Vhana variation of the free-form style contains more open spaces, approximating movements. Exactly what type of movements is open to interpretation.

5. *All Age Fun* — Aptly titled, this track really is fun. And — oh, my, god — there actually is a drumbeat at times! This is another fast-moving, snoozeyalose carnival of synth-n-sax. It's almost as if Jeffrey and Joker can't go for long without shedding the serious layer and treating us to musical smiles. I can't help thinking that it would have been fun to be involved in this project.

6. *See Q Naper* — Cheese organ briefly joins the tech sounds, and the sax is almost jazzy. Everything's still free-flowing, randomly avant garde. Atmospheres and moods scroll by quickly, with quick forays in and out of carnivals, church, jazz clubs, dreams and nightmares. Each phase lasts just long enough to evoke emotions, then moves on, a smorgasbord of one's insides.

7. *Sun God Iri* — Processed string samples pan, and the sax is played with some soulful vibrato for the first time. Other sampled orchestral and other "real" instruments appear briefly then give way to the next visitor.

8. *Blue Pixys* — Harsh ponging vies with the continuous sax conversations in a track that is much like the CD's opener in its plethora of bleating and blatting. Suddenly the monotony is broken by a sci-fi crescendo that promises to usher in some kind of dramatic thing, but then it's back to sax talk.

9. *Nine Lives* — The CD closes with what sounds like being chased by a small herd of diminutive yet dangerous alien insects, screaming to inject their venom into you. And that's the pleasant part — then comes the sucking sounds. One wants to imagine sucking the dregs of a tasty milkshake from the bottom of the cup through a straw, but it's too difficult to shake the alien invasion feeling, so we're left with having our mojo extracted by some kind of crow-sized metallic alien mosquito, painfully clamped to your

chest with its 18-gauge syringe buried to its hilt in your torso.

The sonic textures achieved by this duo are impressive; the difference with Near Vhana is that the textures and variations tend to fly, rather than walk, by. I found myself lurching for the rewind button often, but finally stopped and just settled in, relaxed, and let the sonic parade hurry by. The big view, the overall experience, is a "texture" in and of it-

CD: Delete Nature Convert Today

Artist: Jorgen Teller

CD: Delete Nature Convert Today — Solos For Trigger Guitar (c) 1998 Ninth World Music

Artist: Jorgen Teller

Equipment: Casio Midi-Guitar, EPS-16+ Turbo-Rack, distortion, WaveBoy efx (grainstorm a.o.). Samples were treated in Eternal Machine (EMS), Curve Control, on a Mac. Recording: 4 trax on ADAT. Feedback setups with amps and mikes on "Feed Grain" which was recorded on 2 track DAT in my own studio. Mastered on TC-M-5000.

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Jorgen Teller is a veteran of the mighty Basement Tapes Wringer. We reviewed his "My Inner Ear" CD in the May 1996 *Hacker*, and his "Pendler" (it means "commuter") CD in July 1997. "My Inner Ear" was an amazing electronic music/spoken word project recorded in the cochlea-shaped (spiral) Roundtower in Copenhagen, and "Pendler" was a compilation project where various artists contributed their interpretations of commuter-traffic noise recorded in its own ambience at Copenhagen's Central Station. Though Teller and his fellow artists might disdain the labeling, these projects are avant-garde with a locus far from the mainstream of popular music. But these are ingenious, brilliant works crafted with the care, detail, and meticulous attention to quality and purity that only a master craftsman brings to his art. You will never find Jorgen Teller's music on *Billboard's* top 100. His tracks are the sonic equivalent of masterful paintings, displayed in the Chicago Art Museum and the like.

self. Near Vhana can be enjoyed under a magnifying glass or with a wide-angle lens; both views contain enough bubbling, percolating life, movement, and aural flavor to keep you interested. I don't know how many times I would listen to this CD in a "sit down with headphones" session. After analyzing the coolness of sounds and ideas, this project might occupy a niche that, say, a parakeet would fill in one's environment, but without the poop.

Then we have "Delete Nature Convert Today — Solos for Trigger Guitar." After the first few minutes of distorted feedback, you think, "Okay. He's starting this like Hendrix would start a concert." But the feedback/distortion continues. And continues. Eventually, the track ends; that was the whole song. "Okay, so we have one track of feedback guitar. Let's see what else is on this CD." What's on this CD is *fifteen* tracks of feedback guitar. Well, more or less.

If I didn't already know that Jorgen Teller is a brilliant musician coming from a John Cage-ish artistic background, I would think that this CD is just a guitarist without much to play simply recording his or her feedback for 63 minutes, and partitioning the soundfile into 15 separate tracks. But because the artist is Jorgen Teller, I listened to this work with more respect. But to be honest, on its own, this CD seems to be a collection of cacophonous, sometimes irritating guitar overdrives with some vocal effects added. It could almost be an audio sampling CD for overdriven guitar, but these are songs that one would ostensibly "listen to" or have playing in the background.

Okay. I'm a guitarist, as well as a keyboardist. From a guitarist's perspective, I can appreciate the tone and sonic expression that emanates from the speakers when playing Jorgen's project. But if I want to hear these kinds of sounds, I'll just plug in my guitar, turn my '64 blackface VibroVerb up to 10, and start cruisin' the fields o' tone.

To help me understand this project from the artist's perspective, I conducted a brief email interview with Jorgen Teller:

SV: What is the "intent" of this CD? What

did you wish to communicate to your audience?

JT: *Working with computers, internet, sample-editing and configurations turns me on — but at the same time I have a motto that say: “The Best About Computers Is That You Can Turn Them Off — You Can Leave Them!!!” I had a vision in which I was looking from inside my computer-screen out to the keyboard. Stretching an arm out to press the “delete” button....*

All in all I wanna play with the conversion item at all levels, — there’s a need to convert and delete — you can’t stop it coming every day. In sound; nature is the guitar-strings.”

I wanted to let guitar playing and guitar-sound sort of drift into the soundscape/ electro-acoustic space-time to melt them together. The EPS 16+ is a wonderful thing for that work — with WaveBoys audio-in and grains etc...

I said to myself; If I don’t do this solo-CD now I may never happen. I was working on a commission in a electro acoustic studio. These recordings were my evening sessions — public holiday jams. They were all recorded in 1st or 2nd take. Usually I set up a “scene” of samples, efx and routings — the tested it shortly — and started executing. Do or die.

SV: Who is your audience?

JT: *My Audience? Well they may be lovers of drone guitar, electro-acoustics, soundscape, free-form and feedback???*

Let’s give a listen to the tracks, and I’ll at least describe what I hear:

1. *White Roses* — This could be confused with the beginning of a Jimi Hendrix live album in which he is tuning his guitar, or perhaps one of his more free-form guitar pieces. But it slowly morphs into some fairly random noodlings on two or three different notes, where you can hear some vocal conversations in the background (or perhaps it’s the foreground, but the guitar is so loud that it drowns everything else out). After a while, this begins to remind me of listening to too much Korn, Silverchair or the Offspring, where ultra-maniacally distorted guitar obliterates everything else in the sonic spectrum.

2. *In-Dame* — This opens with what sounds like an attempt to play The Star Spangled Banner (a la Jimi Hendrix at Woodstock), but then it just settles into another churning maelstrom of guitar feedback and sustained harmonic modulations. Just when you think

it’s going to be six minutes of nothing but the same, about halfway through the track a wah-wah pedal kicks in, which only really modulates the extreme upper frequency, then shortly thereafter some kind of low-end boost kicks in, announcing the presence of an actual low end on this track, rumbling the speakers and the bottom end of your hearing spectrum (it might give you a nice bum massage, depending on where your subwoofers are placed).

3. *Feed Grain* — Track three starts the same way: screeching distorted guitar feedback. But the big difference on this track is, it sounds like a chorus effect is added to the cacophony. Eventually, Teller adds in what sounds like a tortured guitar synthesizer to the mix, yielding what one might imagine an enraged bees-nest would sound like, or perhaps flashbacks to the Electric Prunes. It oscillates between these tonalities and the sound of a shrieking skil-saw about to bind its blade against a knot in the plywood. This track actually has some very cool feedback, such as a guitarist only dreams of getting. It morphs in and out of what sounds like an alien spacecraft embattled in death throes, multi-layered modulations that sound like a combination of synth and real guitar.

4. *New Moon* — Just when you think “Ahhh, here’s a peaceful, meditative-sounding track,” the guitar once again kicks into overdrive. This time, Teller explores the distortion modulations based on a simple three-note “melody.” In the background (and intro) there are some interesting experimentations with some kind of rising-pitch effect over obscure human vocalizations.

5. *Lesley Cake* — As much as I want to hear the “art,” all I hear is my 13-year-old neighbor playing his first notes on guitar, and he just discovered the “on” switch on his shredder pedal. Jorgen: what gives?

6. *Aggratar* — The next door neighbor discovers chords. Random riffing and chopping takes place over a background of subliminal percussion sounds and what sounds like a car alarm that somebody should turn off.

7. *Train Buka Banjo* — The title says it all. Trains. Banjo. But what the hell is a “buka”? It must stand for the other undefinable elements. Actually, I don’t think there’s a real banjo in this track, just an electric guitar compressed to sound a bit banjo-ish.

8. *Latter Slow* — If you had a bad tape recording of the ravings and cacklings of the inhabitants of hell, and somebody was noodling on a slightly distorted electric guitar over the top, you’d have “*Latter Slow*.”

9. *Delay Hygge* — Adding a digital delay, putting the setting a bit more towards “clean,” and adding a semi-industrial background, still doesn’t make this sound like anything besides a guitarist tuning up.

10. *Back Seater* — Sitar drones and plucks over guitars tuning. Fade in the bagpipes for the last minute.

11. *Voxfool* — I think Ivan the gorilla grabbed the guitar on this one.

12. *Kolnalooga* — Teller explores the extremities of distortion on this track, causing the beating modulations to crash into each other with emanating explosions of frequency wars. Nice, ballsy low end.

13. *Delete Nature Convert Today* — The spoken words “delete nature convert today” pass through many different pitch modulations, while Jorgen plays a semi-swingin’ melody on his pitch-shift-harmonized guitar.

14. *Conversion Time* — About a minute or two of digital black. No sound. Gets you ready for the final track...

15. *Hink* — After an hour of free-form, experimental drone guitar, most of it without much to anchor the listener, this final track comes in with shaker, bass, and digitally-delayed clean guitar playing an almost-melody.

Before I read Jorgen’s email, I had written that this CD project “doesn’t make it.” That was too harsh. After reading about Jorgen’s intent, I see it differently: he succeeds at documenting the tonal explorations of drone feedback guitar mixed with synth guitar and other sample effects. My complaint is mostly that this music is indistinguishable from an amateur guitarist playing with his or her first portastudio. And that’s not Jorgen Teller.

There *is* art on this CD. Let’s see if I get it: The first twelve tracks are “nature.” Natural sounds in the sense of no boundaries, no rhyme or reason (and no artificial things like tuning). Track 13 tells us to “delete nature convert today.” Track 14 (“*Conversion Time*”) gives us a couple minutes of silence; pause to think about converting. And the final track, “*Hink*,” is post-conversion; following the expected matrices of human music. But are we supposed to feel guilty for enjoying some order, a context for the randomness that we are forced to endure day after day? Is this a judgment on those of us who have accepted the brainwashing of “nature deleters” and disparage the avant garde? If so, I have one thing to say: “Delete nature, convert today.”

Treasures from the Basement

Steve Vincent

Being the reviewer of your music in the Basement Tapes for the past three and one-half years has afforded me a unique vantage point: I have had the privilege of listening to your projects in every conceivable stage of production, from scratch pad to shrink-wrapped CD. Many suggestions have been tossed around, many lessons learned. I have brought these ideas together — lessons from *you* — into a final compilation, and organized them into a dozen topics. Keep in mind that all rules are made to be broken! If your intent is to torture the EQ for a certain effect, then do it. But here are dozen do's and don'ts. Learn from your fellow hackers about...

1. Stylistic consistency. It helps a musical project to keep it somewhere in the same stylistic universe: Don't mix styles too much. If you're putting out rap, don't toss in a country tune. If you shred, don't make us roll our eyes by including a classical piece. You may be extremely eclectic in your musical tastes and abilities, and perhaps might want to strut your stuff when you have the spotlight. But if you are attempting to target a specific audience or contribute to a particular genre, be aware that mixing-n-matching styles can be confusing and a bit jarring to your listeners.

2. Intent. Closely related to stylistic consistency, it helps to focus on the intent of your project. Call it your "objective." Is this a demo tape? What are you demoing? Your songwriting skills? Your jazz soloing chops? Your sequencing abilities? Make sure you clearly showcase your music along the lines of your intentions. Don't expect your listeners to "get it" if you make your intention obscure (unless that's your intention...). I can't count the times I have emailed, written, or called contributors to the Basement Tapes in order to find out about the intention of their CD or tape. Communicating your goal (in some way) will put your music into a context. And in communication, context is everything.

3. Packaging. Part of how you communicate your intent and style is in the way you package your project. During the first couple of years of my tenure as Basement Tapes reviewer, most of the tapes were actual cassette tapes, with hand-written or photocopied

J-cards. In recent years, however, the price of graphics and packaging has dropped so that a great-looking cover is within the reach of just about anyone. I made the mistake on my instrumental Christmas CD of not giving enough information about the CD on the cover. A sentence or two about the style of music helps tremendously. And one hint: the human face remains hands-down the single most interesting thing to look at on CD covers. (One more hint: it doesn't necessarily have to be your own face . . .)

4. Lyrics. Ah, lyrics. The boon or bane of a musical project. Great lyrics are very very difficult to write! I don't even attempt to do it. If I have a vision for a vocal song, I collaborate with lyricist friends on the lyrics. Most of the times that I have winced when listening to a Basement Tape have been while listening to poor lyrics. I have always commented on lyrics that needed attention. Making words rhyme does not make poetry! If you aren't already completely certain that your lyrics communicate artistically, then I beg you to play your music for someone you know and trust who is a wordsmith; someone who would know if your stuff is good. And listen to them! I have heard some absolutely stunning tunes instrumentally, only to have me shake my head as I listen to amateurish or slovenly lyric writing. Work hard on this! Write, edit, re-write, toss it out and write it again... until it's perfect. One hint: Kill all cliches.

5. Perfection. Once in a while I would finish listening to a Basement Tapes project, and in my heart I knew that the production and engineering were perfect. But there was something missing. What was it? I don't know... heart, attitude. Don't sacrifice musical emotion on the altar of engineering perfection. I'll never forget laying some solo electric guitar tracks in the studio for a friend of mine, and I had done about three takes of the same solo. I was about to do one more because it was still too sloppy for me, but the engineer (a guitarist) said, "No, keep that last one! It's got attitude." And he was right. Every time I listen to that track, I hear the clams (plain as day, and not just to *my* ears), but the attitude rules: it was passionate and daring, always teetering on the edge of out-of-control. Listen to some of the greats of yesteryear (Hendrix and Santana come to

mind) and you can hear all sorts of "mistakes." But so what.

6. Performance. On the other hand, just because a performance is sloppy doesn't mean it's got attitude! In listening to some of your Basement Tapes, I've often wondered why an otherwise excellent musician would let certain glaring mistakes slide. There are times that I just knew that he or she simply got tired, and didn't have the energy to fix it. But sometimes running that track through the wringer just one more time will squeeze out just the grand performance you were hoping for. As in many things, there must be some kind of a balance, but unless you have some excellent reason for letting a glaring error stay in the mix (see "Perfection" above), keep doing it until you've got it right! If you have the ability to play the passage perfectly, why document on tape or CD a less-than-stellar performance? Record the "you" that can do it perfectly.

7. Mix. Mix simply means putting all the elements of your track into their "rightful" places. Subtle panning, EQ, volume, and judicious use of effects can absolutely do magic to a mix. The major sins I've heard have been poor volume combinations, and over-zealous use of effects. Often a guitarist will want his or her guitar to be the loudest thing in the mix. This does not always make for the best-sounding final product. Nor does washing a track (especially vocals) with a tsunami of reverb, unless that's the specific effect your going for. Err on the side of conservatism in these areas. The eighties were wet. The nineties are a bit more dry. Who knows what the 00's will bring.

8. EQ. This is a subset of "Mix," and another area to give close attention to. I love listening to an artistically EQ'd project. Sure, there are certain rules that beg to be broken, but there is usually a good reason that it was a "rule" in the first place. The main EQ sin I've encountered in the Basement Tapes has been conflicting EQ spectrums. That is, two or more instruments vying for the same frequency range. Don't make your acoustic guitar track compete with your bass track by piling the low-end onto your Martin. Be especially aware of obliterating vocal tracks by too much competing sound in the vocal spectrum; many keyboard sounds, including piano, strings, horns and pads, can compete annoyingly with the vocals. Sometimes correct equalization can do more to separate the elements of your mix than volume and panning. This is one of those areas where an extra pair of ears is invaluable. Ask others what they think of the EQ, and listen to their input. Unless, of course, you don't want to.

9. Pitch. What do all great vocal tracks have in common? Great pitch! This should be one of the ten commandments of music production: vocals simply *have* to be on pitch! I don't care if you have to cut-n-paste every fricking phrase, or bring in the pitch-correction gear. Make the pitch dead-on. What makes Mick Jagger or Bob Dylan great singers? Well, one thing is pitch. And this is not just true for your vocal tracks: make very sure that your instrumental tracks are in tune! Not all samples are tuned perfectly; you may need to tweak them a bit yourself. Buy a tuner. If your ears aren't really great at detecting pitch inconsistencies, then you simply must invite someone else into the studio to help you.

10. Digital sterility vs. analog warmth. We've all heard enough "DDD" projects (recorded and mastered completely in the digital realm) to be aware of the antiseptic sterility of digital recording. Don't get me wrong: digital is absolutely fabulous! But to be honest, I've listened to more than a few Basement CD's that could have benefited from some tube compression or analog track-

ing or some kind of warming up. There are a zillion "warming" gizmos on the market these days. It is my humble opinion that analog warmth simply sounds better! So, record and edit in the digital realm, but warm it up somewhere along the signal path. Please.

11. Mastering. I know what it feels like to be proud of yourself for doing a complete "do it yourself" CD project. But please, kick out the couple hundred bucks right before pressing your 1,000 CD's to have the project mastered (or premastered as it's also called). This will ensure some nice and consistent EQ, consistent (and silent) spaces between the tracks, and consistent volume from track to track. Most CD duplication companies (like DiscMakers) have in-house mastering as an option. It's well worth the money. I shoulda done it.

12. Collaboration. For some reason, a lot of us get into the home-studio thing because we're fairly independent folk who pride themselves on being pretty good at all parts of the recording process. But everyone has

their limitations, and the sooner you learn to swallow your pride and ask for assistance, the better. The people listening to your tape or CD aren't going to cut your music any slack just because there's a line in the CD insert that says, "All songs written, recorded, edited, produced, engineered, mixed down, mastered and duplicated by ME. Oh, and I did the graphics too." Trust me, that's only in there for one reason: You. Ego-promotion. But if you exist to serve the music, then "how it sounds" should be more important. Don't be afraid to let someone else's idea have the final "say" on the low-end of the conga track. Once you get used to it, it's actually kinda fun to write, "Conga track EQ'd by my brother-in-law." So, get your solitary, hermit vibe out of your system, and start playing and collaborating with other fellow-musicians. It's fun. ■

Bio: Steve Vincent produces demos and CDs at his home-based Portent Music, and can be reached via email at vincents@harbor-net.com, or at his website at <http://www.kspace.com/vincent>.

Where Are They Now?

Garth Hjelte

[TH — Garth had WAY too little time to chase down all the ol' Hackers — so there're a lot more folks missing than there are here. But here's what he found...]

As you all know, the *Hacker* has been around for a long time — 15 years, to be exact. 15 years ago computers were business and black art. It wasn't part of a normal routine to check e-mail. The World Wide Web wasn't even coined until 1990. And the word "hacker" had more credibility to it.

One of the most amazing things, to me at least, is the longevity of the people who have written for the *Hacker*. So let's roll down memory lane and see what them people are up to. Besides *Hacker* writers, I threw in some Ensoniq employees, third-party companies, and related people.

Note: for those of you who have only subscribed since, say, 1994, some of these folks may have absolutely no meaning to you. Give us old fogies a break. (By the way, the *Mirage* was *the* breakthrough commercial

sampler — when introduced, it was a bonafide SAMPLER for \$1695 — within most people's reach! That's what started Ensoniq, really.) Also, I'm sorry I had to leave some people out — some we couldn't contact, some we weren't sure of.

Don Slepian — Don was an early electronic music pioneer and is still at it. He loved his Mirages! Check out his web site at www.eclipse.net/~slepian. Don is arguably the premier *Mirage* artist, featuring the old black beast on many of his recordings. This web page contains some of his *Mirage*-related articles, a discography and more.

Jim Johnson — wrote many technical and programming articles from the start of the *Hacker* to early '90s. He now works for Seer Systems, the company that puts out *Reality*, a powerful leading-edge software synthesizer.

Kenn Lowy — works at *Wired Magazine*, a top technology magazine.

Chris Barth — owns and operates Silicon Chip Recording in Philadelphia. He works on Akai gear now (sniff).

Clark Salisbury and Erick Hailstone — the rumor that these guys are siamese twins, separated at birth and raised by different mothers, is completely not true — well, half of it, at least. Now, heavy into sound creation.

Dick Lord (Upward Concepts) and Steven Fox (Leaping Lizards) — Both these guys wrote the first alternative Operating Systems for the *Mirage*. Dick provided in-depth technical information on exactly how the *Mirage* worked. I really liked his Super-MIDI Disk product — it supported volume control for MIDI controller 7. Some people still sell Dick and Steven's stuff (see www.mirageusers.com for the *Mirage* Users Page), but no word on contacting Dick. As for Steven, who knows what happened to this guy? All of a sudden, he took off to Indonesia to live among the natives there or something. Steven was a leading hacker of the *Mirage* — he wrote several alternative OS's that made the *Mirage* do strange and stranger things.

Persis Ensor — Persis, ironically, is Dick Lord's wife and runs *The Renaissance Workshop* in New Hampshire.

Garth Hjelte — shoot, what do I do? Owns and operates Chicken Systems, which supports not only Ensoniq samplers but all other professional samplers as well.

Nick Longo — Still doing Cesium Sound.

Gordon G. G. Gebert — Gordon formed M.U.G, which was *Mirage Users Group*, and then when he realized that there was a bigger market out there than just the Mirage, he renamed it *MIDI Users Group*. One of Gordon's claims to fame was his relationship to Ace Frehley of KISS. In fact he co-wrote a book named "*Kiss-n-Tell*," and then wrote a book called "*Kiss-n-Tell More*" — all about the inside world of KISS (which I still think means Knights in Satan's Service). Gordon still runs M.U.G., or more accurately G4 Productions, producing bands and music, and has a band called *Still Wicked*. OK.

Dr. Richard Boulanger — Richard gave us the scientific details of things since he is a professor of Music Synthesis at the Berklee College of Music in Boston. As a performing composer, Boulanger has played his music in Moscow, Japan, Canada, throughout Eastern and Western Europe, and all over the United States. Richard has received many awards and honors including a Fulbright. On the electronic end, he is an authority in the CSound world, and sound is his specialty. Read this — it will give you and idea — mitpress.mit.edu/e-books/csound/fpage/pub/csbook/contents/intro.html

Larry Church — The co-owner of DAN-LAR Music, the creators of Monster Dan sequences. Who can forget these guys?

Sam Mims — Wrote many articles and was the Hackerpatch guy for the longest time. He now owns and operates Syntaur Productions, third party company for unique Ensoniq products. They also distribute many of Ensoniq's accessories. Sam used to be in southern Cal and now lives in Eagle Lake, TX.

Bryce Inman — Bryce is currently a transcriber among other things with Word Records in Nashville.

Jeffrey Richter — Although Jeffery rarely wrote for the *Hacker*, I had to put this in here. Jeffrey wrote the first software program that worked with the EPS — it was a DOS program called EPS-SENSE. Cute little item — some Ensoniq people mentioned that they used it to name layers and wave-

samples, etc. Jeffery is now a leading Micro-soft Press book writer and seminar host. His "*Advanced Windows*" is very popular in the computer world. Famous guy.

Dualing Garys: Gary Morrison and Gary Dinsmore — I always got these guys confused. Morrison's area of interest was alternative tunings. He made some for the Mirage and then later for the EPS/ASR. Gary Dinsmore published the EPS User Guide — in fact, he still sells it (\$22). See www.columbia-center.org/gdinsmore/midi.html. He now lives in Oregon, works as a chemical engineer at a paper mill, and broadcasts a weekly radio program.

Barry Carson — Barry is still teaching music education in upstate New York.

Charles R. Fischer and Jeffrey Rhoads — both these prolific writers have since passed away. Charles in particular was a esteemed innovator especially in building electronic kits and devising new and inventive ways of using musical instruments. *Electronic Musician* had quite a write up when he passed away.

Tom Shear — "Mr. BIO/Mr. Las Vegas" himself. Frequent writer for the *Hacker*, he has appeared in 8 compilation CD's, including his own projects (Assemblage 23 — electro industrial and Nerve Filter — dark techno). He also does remixes for industrial bands such as THD, Scar Tissue, Pain Station, and Flesh Field. He is releasing his debut album as A23, entitled "*Contempt*," on the Canadian Gashed! label October, 1999. Amazingly, his sole piece of musical gear for making all that awful ruckus is an Ensoniq EPS-16 Plus — wow!

Michael Mortilla — writes orchestral scores for plays in Santa Barbara, CA.

John Loffink (First Generation) — John wrote many technical articles (output modes, etc.), and pioneered some Ensoniq samples using computer methods to create wave-samples in the digital domain. He worked for Kurzweil for awhile.

Mark Cecys (Triton) — Mark wrote Triton, a late alternative Mirage OS. He went on to work for Apple Computer.

Tom Metcalf — The person behind most of the Mirage sampling stuff. He then did much digital artwork for Ensoniq (for example, see any of the Ensoniq-produced CDR- CD-ROM covers). Looks like he's doing lots of

music now — see his site at www.thomas-metcalf.com.

Rob Weber — Former Marketing director for Ensoniq during the "salad days." [*TH* — and the guy who originally let the Hacker "in the box."] He has also served as a director and consultant to a number of high tech companies in fields such as factory and lab automation, Internet, multimedia and health-care software and communications products. He is now President of Weber Associates, a strategic marketing and financing firm serving high technology growth businesses and teaches at the Wharton School at the university of Pennsylvania.

Bruce Crockett — He was "The Big Cheese" of Ensoniq for awhile; then he moved to Kurzweil for a VP job.

Roy Elkins — Roy was the start of the "Ensoniq School," where dealers came and got on-site training at the factory. Now Roy has climbed the ladder and is the Vice President of Sales and Marketing at Sonic Foundry, makers of Sound Forge, Acid, and their new Vegas product.

Gary Giebler — Giebler Enterprises: Converters and translators.

Ray Legnini — Ray worked a lot with Paris during his employment with Ensoniq. He also contributed sounds to an ASR-X audio CD.

Tony Ferrera and Cosmo Watts — Tony and Cosmo now work for Seer Systems as well. Tony wrote a series of excellent articles during 1995-1997. Cosmo was with Ensoniq since the late 1980's as the California rep.

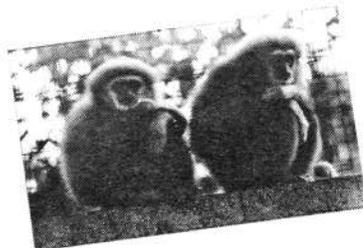
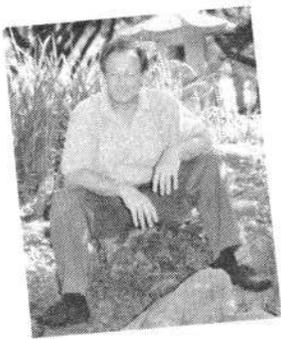
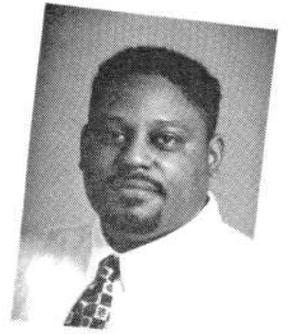
Tom Tracy & Robby Berman — Both worked for Ensoniq as manual writers for several years (seems they know good writers when they read 'em!).

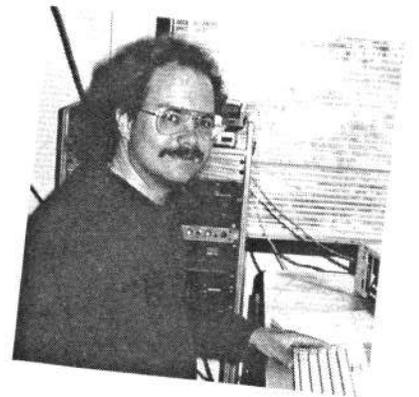
Steve Curtin — Steve wrote a couple of articles about micro-tunings, and developed the MIDI Tuning Standard for the MR series (and eventually the ASR-X as well). He now is an Audio Applications Engineer for the CD-Radio project with the Microelectronics division of Lucent Technologies — Bell Labs Innovations in Allentown, PA.

Jerry Kovarsky — Jerry was the head of marketing during most of the 16-Plus — ASR-10 days. He now is the Product Manager for Korg. (BTW, he was the guy for Casio before he worked at Ensoniq.)

The Bevy...

Or, at least most of 'em





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 - Internet: interface@transoniq.com. In many cases a quick answer can be obtained by posting to our interactive, on-line Interface at our Web site (<http://www.transoniq.com/interface.html>) or calling Ensoniq CS at 610-647-3930.

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 Pat Finnigan (PF). Letter publication in the printed version of TH is subject to space considerations.

Hi,
Subject: Greetings from Woodstock

So the last issue has rolled around, all too quickly. Just wanted to drop a note saying what a great contribution the *Hacker* made to all of us over the years, and to add my thanks to what will surely be a great resounding chorus of others. From the time I got my ESQ-1, I found the *Hacker* to be an invaluable resource. The articles of mine that you kindly published beginning back in my daze as a VFXsd idiot savant wound up providing the basis for what has become my grown-up career. And I met lots of nice *Hacker* people, by phone, by e-mail and in person.

Thanks, Jane and Eric, for all of the hard work (and of course you got fabulously wealthy). Who'da thought you'd outlast Ensoniq itself?

Best of luck,
Robby Berman
groganb@ibm.net

[TH - Hey, good to hear from you! Somewhere we must have misplaced all the wealth, but we met a lot of great folks too. It's been a blast.]

[Anthony_Ferrara@compuserve.com - Hello Robby, Jane, Eric, and everybody else in the former Ensoniq community. Sorry to see things go out like this, but technology companies will and must follow their greatest successes, as has happened with the evolution of Ensoniq into another type of company. I wish you all well, and appreciate the support that I was given as I moved throughout my various positions with the company. I also had great fun writing articles for the Hacker, back when time allowed. I'm busy doing other things with the skills I refined while at Ensoniq, as I'm sure many others are. Best wishes to all of you, and feel free to drop me a line at: Anthony_Ferrara@compuserve.com. Bye for now... and Robby, give me a call!!!!]

Dear Transoniq,

Good luck to all. I wanted to contribute something, so, with your help (couldn't get the last two), here's a reverse index of file extensions from the **MR-61**. Saving from the **MR** is easy enough, but reading the disk on a PC was confusing. This may be helpful:

.ALL	All
.SSN	Session
.mfb	All Songs
.mf3	One Song
.mid	MIDI file from Sequencer
.rbk	FLS Rhythm Bank
.rhy	One Rhythm
.sbk	Sound Bank
.sou	Single Sound
.pbk	Presets
.pre	One Preset
.wav	Wave PC
.aif	Wave Mac
.???	RAM Rhythm Bank
.???	RAM Sound Bank

Thanks.

Fred Shantz
LonelyGuy1@aol.com - Owner of all TH's; purchaser of Mirage, EPS, MR-61; supporter of RCS; favorite color is Translucent; AND, I sample.

TH and PF.

Here we are at the last issue. Sorry to see it end. I'm hoping that Pat will give us an idea of where or what the website will look like. I'd hate to end it just like this. Can you fill us in?

Delaware Dave
DMusum7335@aol.com

[PF - Dave: My webmeister guy informs me it's about a week or two out - something about registering URL's and stuff. Stay tuned. And I'll get that disk out to you this evening...]

[DMusum7335@aol.com - Thanks Pat. This is too highly informative a medium to just let die. Glad to hear about the soon-to-be website.]

[TH - Pat's site is at: www.home.earthlink.net/~ptf/.]

TH -

I've sent all the e-mails and letters I ever will about the demise of *Hacker* and the fall of Ensoniq, so now I have accepted that I must move on and I made that first step by purchasing the Proteus 2000. Good Lord! What a machine! It is everything the MR Rack wanted to be and maybe could have become. I mean, even without a plug in there are 8 banks of 128 sounds to start out with, and the quality is beyond excellent, especially the guitars which are the finest I have ever heard. The audition mode is vastly superior to the MR as it has many more and longer riffs. Even with the 32 MB I don't know how they achieved the quality of the samples including some killer keyboards. Also, this baby has two sets of MIDI, capable of 32 channels and has 128 voices. Supposedly one of the plug-ins will give it sample reading ability. All in all a magnificent piece of architecture and proof that there is life after Ensoniq.

JOHN
JGar158959@aol.com

[PF - John: That's good to hear. I had a phone call last month from a veteran Hacker reader explain that he bought a P2000 based on Keyboard Magazine's "Must Buy" status and was very disappointed with it. Just goes to show - different strokes for different folks...]

TH -

Our church is looking into upgrading its synths. What is the **SD-1** worth?

Gerren, Neil
ngerren@neo.rr.com

[PF - Neil: Any pricing on this is purely speculative, but if it's an SD-1 32-voice, Mark Pulver at <http://www.midiwall.com/usedgear/> shows it somewhere between \$800 and \$1200. I purchased my last one (I own 3) for \$550 w/SKB hardshell case, so his pricing seems high.

Then again, I looked for two months to find one...]

[John Bolles (jbolles@martech-mdi.com) - I use an SD-1 in church and I've programmed many sequences of contemporary P&W songs that you are welcome to have if you go with an SD-1. You can e-mail me at JBolles702@aol.com, or through my website at <http://hometown.aol.com/AllegraRC/>]

TH,

Sorry to hear that the last issue is reality now. I never managed to subscribe (I wasn't able to find an okay way of payment without a credit card and from the other side of the globe). Perhaps you remember my annoying posts... But I'm sure at one point I will simply buy the "Complete Hacker" from where ever possible. If you have any tips - or if you have "Complete Hackers" for sale - I'd love to hear about it.

And, to Pat, if there's any way one can help you with the online *Hacker*, just let me know. I don't know too much about most Ensoniq products, but I'm pretty sure I know absolutely everything about the ASR-10 (meanwhile including what the "Instruction Monitor" is good for. :-)

Best to you all,
Derek von Krogh
derekvonkrogh@gmx.net

[TH - Sorry, no plans for any kind of "Complete Hacker." We probably will put together some sort of "Retro-sub" to send out to folks whose subscriptions trickle in over the months to come...]

Good-bye Old Friend

Well, here we are. We are at the day that I think most of us felt would never come. My two short years of writing for the *Hacker* have been, to say the least, a real roller coaster ride. The lows have included such items as the bickering (as I call it, Flaming!) in the Interface letters and the bellows of hatred toward Ensoniq. For me, the highs include the actual idea of being published, and being able to really help someone that really needs help. It was great for me because I got a chance to put information into a clear, step by step process that anyone could understand. Those articles actually helped me learn product and share some tips that I have developed on my own, as well, put across some ideas that I gathered from others to help a mass of people.

I think that a lot of people could sit and complain (or maybe speculate) about why or how something like this can happen. I can't claim to have any answers for that, but I can say that the *Hacker* was really there for those who needed it, writers and readers alike. I have heard people at many times say that they would never have learned how to use their synthesizer, if not for the *Hacker*. I feel that statement is a tribute to what the *Hacker* really has done for people.

I want to thank Steve Vincent for doing the reviews of the music I have produced. Even though the reviews were pretty favorable, I feel that he would have still told me if I hadn't met the mark. He has a wonderful (and head-swelling) way of complimenting one's material. I really thought I was a star afterwards. Thanks!

Don't forget that ENSONIQ technical support is still a great place to get answers for Ensoniq related questions. Please try to be patient with us though, we are short staffed and with products like Paris some calls may take a little longer. Their new number is now 610-948-8060.

Jane and Eric, I wish it did not have to come to this, but as they say (whomever they is?) all good things must come to an end. I think you guys provided an invaluable service to many users. There will probably never be another like you. Thanks!

Remember to be funky, make music, think Ensoniq! Good bye everyone, and...

Good luck!
Eric Montgomery

[TH - Thanks, Eric! It's been great working with you too - stay funky!]

[PF - Gang: It's been a helluva run, ain't it? This forum has always been a pretty freewheeling resource, and therein lay its value. We'd always tell it like it was, replete with flames and praise from Ensoniq corporate. Doesn't seem like 12 years ago when I bought my first Mirage. The internet wasn't even a gleam in ANYONE's eye back then, yet that's where all the support for these venerable instruments will repose: stay tuned...]

In any case, kudos to Jane and Eric, whose editorial brio defused MANY untenable situations, to our reader base who rallied behind me during said situations, and to all those who actually learned the nuances of their hardware thru the magazine. End of an era, but not the end of support for those elegant early Ensoniq keyboards that the rest of the world just caught up with. Remember mentors like Garth Hjelte, Sam Mims, and all the 3rd parties who pushed Ensoniq gear WAY over the top; they've picked up the gauntlet and trust me, plan to run with it till the last Ensoniq chip expires. I will always treasure Jerry Kovarsky's evasiveness about admitting the DP4, Steve Coscia's tour of the plant, Roy Elkins' Keith Emerson impression, all the worker bees in the warehouse, the CAD darkrooms, the Dyaxis sound design room; end of the era and beginning of the new millennium...

Thanks to all those who made this brief but profound dent in the universe, and a very heartfelt thanks to Eric and Jane for not only moderating this forum but allowing me the privilege of "interfacing" with all of you. We made a difference... Peace out...]

[John Bolles (jbolles@martech-mdi.com) - Dear Hacker: I would like to echo two sentiments in Eric's post, namely: It was a great thrill writing articles that got published in TH, and an even greater thrill to have music thoughtfully (and, yes, favorably) reviewed by Steve Vincent. I also want to add that I think it has been very magnanimous of TH to continue to promote Ensoniq products in their magazine, while Ensoniq has stopped promoting TH with their products.

I had been interested in synthesizers for a long time, but never bought one until the 1980's, when I bought an

SQ-80. TH was there in the box, I subscribed, and have hung in ever since. TH was one of those resources I read over and over and over in the early days while I learned the fundamentals of digital synthesis. Although I have relied on its technical information less in recent years, TH has helped me remain part of the Ensoniq (or maybe more correctly the Hacker) community, and I particularly enjoy the Interface.

So congratulations on a great job. The more I think about it, it IS the Hacker community, not the Ensoniq community. There's an accomplishment that transcends the publication of words. GREAT JOB.]

Hi,

My name's Chris and I'm from Australia. I'm wondering if you know of anywhere over here (Sydney and surrounding area) that sell ROM and RAM cards for the Ensoniq SQ-1 (whether it be stores or web sites). Any help would be cool!

Thanks,
Chris King
diggingest@mpx.com.au

[PF - Diggingest: Short of the Electric Factory down under, I know of no other Aussie distributors. You might eMail Ensoniq to get a more current listing of dealers.

The only source I'm aware of is www.fatsnake.com/syn-taur - here in the states. Sam Mims can hook you up...]

TH -



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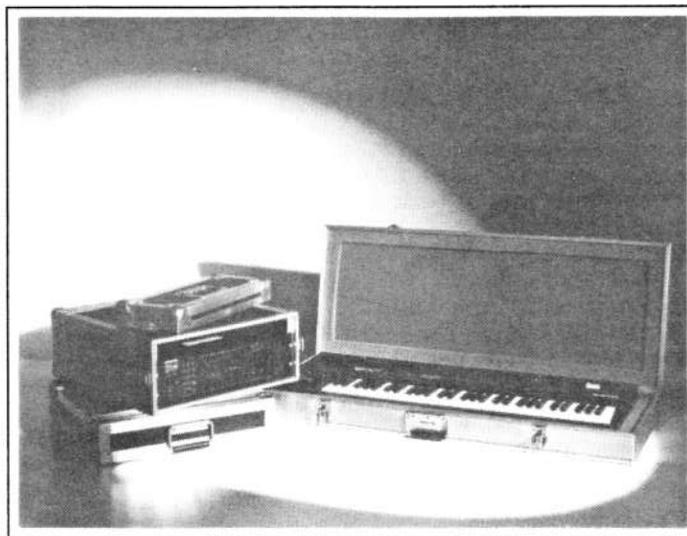
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THE OPTIMUM IN PROTECTION

Does anybody know the way (any!) for ASR-X upgrading to an ASR-X pro? I sold my lovely ASR-10 and it looks like I found myself with ASR-X in the road with the wall in the middle – even if Ensoniq (its dealer) promised permanent upgrades...

Zbigniew
Poland
zizi@memo.ikea.com

[PF – Monizia: Ensoniq took a lot of heat on this one when it offered an upgrade path and then neglected to provide one. Consequently, the only upgrade path is to sell your ASR-X and bag Big Red. No other upgrade path exists...]

Help.

I have a dead **KS-32** and my repairman says that the main controller board needed is not available. Any ideas?

Zootie38@aol.com

[PF – Zootie: Punt. You could call or eMail Ensoniq to see if they have a spare hiding up in Malvern. Try Sam Mims at Syntaur Productions: he's been buying up old Ensoniq gear and might have one, although it's a slim chance. Good luck!]

TH –

I have a **ZR-76**, but no MR flash add-in. What other Ensoniq sounds will my floppy drive read in? What third-party sounds are available?

Mark
mhicks@hbtechsupport.com

[PF – Mark: The FlashRAM option is required to load different wavestounds into the machine. New patches, drum machine rhythms, and sequences can be loaded in via the onboard floppy drive...]

Ho TH!

Here are some **ASR/EPS** programming questions/observations:

1. On an instrument which I had "stereo-ized" by copying the layer, panning the 2 layers hard left and right, and delaying one of them by 3, I decided that I wanted one of the patches to be a key-down/key-up variation so I could do percussion rolls. So I copied both layers again and set the envelope type of the copied layers to "finish" and made them both key-up-only layers on the [edit : instrument] page. Trouble is, when the key is lifted, only the non-delayed layer plays, presumably because the key-up event is too short for the delayed layer to be triggered. I think I fooled around a little with second release points to no avail, probably because it's the front end of the wavetable where the problem lies. Do any of you sound programmers out there have time to hack around with this one and give us an answer: seems it's a very useful thing to be able to do.

2. Kind of by accident, I found a solution to the infamous song-saving bug (that's where you go to save your song and all of a sudden it's using a quarter megabyte of memory or more, and no longer fits on your floppy). If you continually save your individual sequences as you work on them (I do it in a directory on a floppy usually) before and after you do your first "edit song steps," then when you go to do a "save song and all sequences" it never seems to hang up, and also doesn't take nearly as long to process.

3. Does anyone know the exact number of sample words in a 4-beat sequence at 100 beats per minute?

As always, thank for all your advice, sound-offs, and inspiration over the years.

Phil Rogers
cuzco@umich.edu

[PF – Phil: Answers, in order:

(1) Try copying the SAMPLE, then copy the layer and other Program data to another layer (as well as the sample data itself). See if that doesn't correct the problem.

(B) Good to know...

(C) It's directly proportional to the sample rate (trick question?...]

[Phillip Rogers (cuzco@umich.edu) – Hi Pat: (1) Samples were already copied, and in separate layers. But maybe I just don't understand your answer.

Try actually doing this: with a conga drum sound in layer 1, copy it to layer 2, then pan the layers, the 1st hard left, the second hard right. For layer 2, go to the [edit:layer] page and set the delay amount to 4; then go to [env3: envelope type] and change it to "finish."

Classifieds

Gang: Selling beloved TS-12: college money due September 18th. TS-12 with 8 Mb RAM. SCSI interface. CDROM, Invision CDR's, numerous floppies, in original shipping box with all manuals & documentation. If \$1100 sounds absurd for a \$3300 keyboard, call 317.875.9000 x437 & let's negotiate!

The original Hacker ESQ-1. Needs battery. \$300. Call Jane, 503-227-6848.

Ensoniq floppy disk sets for ASR10, EPS16+, EPS: 10 disk sets SLT1, 2, 3, 5 for \$20 each, 3 disk sets ESS1, 2, 4, 5, 10 for \$15 each, Ultimate CD CDROM for ASR10 \$50. Contact: Boris at sampleit@hotmail.com or 630-434-7529.

ASR sounds on floppy or zip disks: African/Native American percussion (drums & talking drums, rattles, dance bells, guiros, etc.). Plus other instruments (flutes, strings, weird synth/vocal). Large memory sets: many articulations, also multiple hits of same articulations so tracks don't have to be sound looped. Also small memory menu kits. More info/sound lists: email cuzco@umich.edu; or SASE Phil Rogers, 700 KMS Place, Ann Arbor, MI 48108.

For Trade — For some reason I've secured two Rubber Chicken CD-Roms #1. I'll trade one of them for a Rubber Chicken CD-Rom #2. Please call. Operators are standing by (719) 568-5280 or E-mail me at kcooter@yahoo.com. Kevin Cooter.

OEX-8 Output Expander for Classic EPS. Hard-to-find item. Rarely used. Original box, mint condition: \$175 obo. Bill Nolan, 770-920-6500, nolan13@hotmail.com.

TS-10. Exc. condition, all manuals, disks, and original shipping carton. Unit has seen home-studio use only (never roaded or gigged). \$1,500 + shipping from Oklahoma. EPS 16+ rack-mount. Home studio use only. All manuals, factory disks/samples, and will include my collection of samples and sequences. Home-studio use only (never been out of the bedroom). \$900 + shipping. Back-issues of Hacker. Will relinquish my collection for a nominal fee + shipping. Issues date back to at least 1987. Don't need 'em and hate to see this plethora of valuable information go to waste. Benny Richardson, (405) 348-3678, benny@theshop.net.

You'll now have a cool stereo sound.

Then copy both of these layers again; and on the [edit:instrument] pages, turn off the keydown for these 2 new layers, and turn on the keyup for both as well. Make sure all four layers are enabled as part of the patch select you are using.

Now when depressing the key you'll hear the stereo sound, but on keyup only a sound panned hard left. Can anyone work through this and explain how to get the same stereo delay effect on key-up as on keydown, in other words how to get the delayed sound to kick in at the time of the keyup event?

(3) Whoops: I wasn't trying to be twicky. OK, say at a sample rate of 48, er, whatever the standard default is on the ASR...?

Thanks again, y'all Hackers.]

[Derek von Krogh (derekvonkrogh@gmx.net) – The keyup doesn't work on delayed layers, at least as far as I remember. The solution is to resample the part of the stereo sound you'd like to have as keyup-signal, and then trigger a stereo layer (with no layer delay at all). The delay/stereo effect now wouldn't be created by the synth engine, but would be inside the actual sample data. Tweak the envelope to your liking, and it will sound exactly the same as if what you described had

1 Ensoniq SCD-4 (Keith Emerson Signature series), 1 Ensoniq CDR-12 (InVision Drums), 1 Ensoniq CDR-13 (InVision Percussion), 1 Ensoniq CDR-7 (Jason Miles Psychic Horns), 1 Ensoniq CDR-16 (Dance Tools). All of the above CDRs are ASR-10 CDROMs that will also work on the ASR-X/XPro, and all are \$50 each (obo). Korg Wavestation EX Keyboard w/bag \$500, Ensoniq MR Rack \$500. Call Eric at 610-948-2933.

Want To Buy E-Prime or KT-88/76. Email Jeff at ahrens@umich.edu.

Hi guys... I am still looking for a good used TS-12 to buy. I live in Mobile, Alabama and would drive up to 8 hours away to check out a keyboard to buy. Glenn Normand, 888-621-0234.

Wanted: broken Ensoniq keyboards for parts. Call Sam at Syntaur Productions: 409-234-2700.

For Sale: Brand New Exp-3 (Urban Dance) board for Ensoniq AsrX/Pro, MR and ZR series synths. This is the one folks! Board and manual \$240 Call 914-668-1386 or Email Dollinge@aol.com.

EPS-16+ Turbo for sale. Good condition. With case, 100's of sounds, effects, Zip Drive, sample CD's. Call 225-293-1630.

In honor of the service the *Transoniq Hacker* has provided to Ensoniq users over the years, Jack Tolin is offering a tape of original instrumental music tracking his Ensoniq-Hacker career. All sounds and music were produced exclusively on the SQ-1 PLUS 32-voice synthesizer. Jack is asking only \$5 per tape. Send all requests to 8602 East 79th Street, Kansas City, MO 64138. Email: Yahkohv@Juno.com.

EPS Classic for sale! PS Systems 4X expander. 250+ floppies, with printed listing, of sounds. Excellent condition! \$500. – Will separate w/case. Finale 3 – Notation Software. In box. Full documentation. \$75 obo. Keith Mullin, 217-221-7267 days, 217-224-4036 nights, kmullin@harris.com.

worked. And as that keyup signal probably isn't very long, it won't need a lot of memory either...

As a side note, he warned that the stereo effect you mention isn't mono-compatible. That's okay for live performances and such, but I wouldn't do that in the studio. Hope this helps.]

Gang:

I'm selling my beloved **TS-12**: college money due September 18th. TS-12 with 8 Mb RAM, SCSI interface, CDROM, Invision CDR's, numerous floppies, in original shipping box with all manuals and documentation. If \$1100 sounds absurd for a \$3300 keyboard, call 317-875-9000 x437 and let's negotiate!

Pat F

[Louis Zack (lzack@ptdprolog.net) – Pat, I once sold my motorcycle for tuition money, then regretted that I did. I always said I will buy another, never did. Anyway if you sell your TS-12 what will you replace it with? My TS-12 is now 5 years old and it looks like the factory may not support repairs and replacement parts. But I love this keyboard. Do I trade/sell it now while it has some value? I will miss the the Hacker. I found it in with my keyboard when I got it. Been a subscriber ever since.]

TH.

I have been a subscriber and Ensoniq user since the first EPS's. One of the first things I saw when I took my EPS "Road Test" was this curious magazine included in the box, the *Transoniq Hacker*. Along with being very impressed with the EPS I was equally impressed by the excitement and support the TH offered. At that time I had not seen this kind of publication supporting any competing companies sampler – a real asset and alliance to the EPS owner.

Since my first EPS I have purchased the EPS-M, EPS 16+ and an ASR-10. All with eager anticipation inspired by the preliminary releases and feedback in the TH. I always looked forward to the arrival of the next issue and the useful information therein. I, along with many others, was not happy when after the merger we found out (not surprised) Ensoniq would not be continuing their great sampler line.

I can see that the support network generated by the TH will continue to be a resource to us diehard users for many years. I thank all the great contributions by Ensoniq enthusiasts and programmers to the pages of the TH and thank Eric Geislinger and Jane Talisman and everyone up in Upland that have made the TH a great forum and resource.

Thank you,
David Odegaard
dodegaar@post.cis.smu.edu

[TH – Thanks for your kind words (and all the renewals!) – it's been grand.]

So long...

So, this is it? Are there plans to continue as an online forum? I've heard rumors of a website? Paleeeeeez! Let us know. (For years I was a contact source for the ESQ-1 and SQ-80's. If the forum continues, I'd be glad to help out again.)

I have been an Ensoniq user for over 13 years and for about five years was a *Hacker* subscriber. As a dedicated and loyal Ensoniq fan, I owned and used an ESQ-1.

SQ-80, Mirage rackmount, SQ-1, VFX-SDII, EPS-16+ and an ASR-10. How unfortunate for a fine source of support to die away because of corporate nearsightedness. (And please, no "defense of the NEW Ensoniq" replies.) Their lack of vision isn't just in refusing to work with the only active Ensoniq users group but in their long line of crap that has oozed its way into the marketplace. I recently found myself in a quandary. I had no desire to purchase an orphan piece of equipment from a company that barely seemed to be in the keyboard business, yet I was looking for something new. After many years of only using Ensoniq gear I just purchased an Alesis QS-7.1. It's functional, inexpensive and a solid performer. (Sounds like a company I used to know.) Meanwhile, I'll still use my ASR and SD-1 for recording work.

Good luck to all.
robertorom@aol.com

TH –

I want to thank Jane and Eric for the *Hacker*. And its contributors, Pat Finnigan, Eric Montgomery, Tom Shear, Sam Mims, Craig Anderton, Garth Hjelte, Steve Vincent... and the others. I have devoured every issue, read all your words.

The best Ensoniq gear is truly brilliant, the synths, the samplers, the great effects. The interface, the sound, the integration, the build quality all suggest a design team with tremendous sensitivity to the needs of serious composers and performing musicians, with instruments that were capable of great artistic range. Though Ensoniq could design great instruments, their marketing was suspect. I often thought that the ad campaigns were terrible or embarrassing (remember the print ads for the ASR-X with the miniature homeboys cavorting on the instrument? How about the mime in the Paris ads? What were they thinking?). Also, sometimes the graphics used on the boards made them look like less than serious, professional gear.

Beyond what the company did for and against itself, Ensoniq was also the victim of some really irresponsible reviews by petulant critics. Flipping through some old issues of *Keyboard Magazine* will reveal a few examples of some nasty, mean spirited writing directed against Ensoniq company products, for reasons which are clearly not authentic, and appear to be somehow personal.

Now, the company seems to be drifting, with indifferent, distracted and distant ownership. Some of the products intrigue: Fizmo, the ZR, the ASR-X pro and the Paris range from interesting, or controversial, to great.

The point of all this is that the *Hacker*, during Ensoniq's strongest period, really facilitated the use, the understanding of the instruments. I really used, really needed, the *Hacker*. I wouldn't have continued with Ensoniq gear without the publication. So, thank you, thank you, thank you. I really have appreciated what you have done.

Best wishes to all.
Louis J Van den Berg
ljvdb3@ucr.campuscwix.net

Hi.

I am the proud owner of an Ensoniq **ZR-76**. The handbook of this thing isn't able to tell me how I can transfer grooves from the ZR-76 to my sequencer (Emagic Logic Audio). It is very important for me to get the right step-by-step information how to realize that!!!

Please help me!!!

Best regards,
Andreas Jauss
andreas.jauss@planet-interkom.de

[PF – Andreas: We covered that very project a few issues ago. In lieu of procuring that particular back issue, I'd give Ensoniq a call: the ZR-76 is a current keyboard, and as such, tech support IS available for it from their site. Remember, the procedure for linking a ZR-76 to a computer via MIDI is essentially the same as linking one of the older MR-series keyboards up to the same computer...]

[TH – And Eric Montgomery goes over this a little bit in the current issue:

And here is something I have mentioned before in the Hacker – setting up the MR/ZR to work with an external sequencer.

Press the Select button in the SoundFinder section. Turn the Parameter knob to get to the MIDI OUT instrument. Now the ZR/MR is in multimode and the keyboard local control is off. To select sounds, use your computer software to send bank and program changes to the MR/ZR. In case your software package needs to know LSB (Least Significant Byte) and MSBs (Most Significant Byte), the MR/ZR will always use an LSB of 032 and an MSB of 0 (Page 452-455 in the ZR manual).

You may also want to know that a list of all of the MR sounds with the proper bank and program changes is known as something different to each company. It is the same thing to us users though. An Environment (an Emagic Logic term) or Instrument Definition list (a Cakewalk term) is available from each respective company or possibly even on the Internet. Get on the Internet and use a search engine like Yahoo and type in something like, "Logic Environment." You may be surprised what you come up with. If there are no Environments or Definition lists available for your instrument, you may have to make your own. Refer to the owners manual of the software program you are using to learn that task.]

Hello Jane & Eric,

Your willingness to publish my sometimes irreverent language (though short of vitriol, I hope) inspired and encouraged me to more writing ventures.

When I went to the Transoniq site and saw WODENT WHEELS I'd thought I may have discovered the power source for Ensoniq gear. (For many years I've been keeping the remnants of "Inspector's Dispatch," a business I started years ago but mothballed it when I returned to a property management job in D.C.)

Thanks for all the help and understanding. All in all, its been a damn good run, huh?

Yours,
J.D. Ryan
broryan@dmv.com

*[TH – Ah, some hacker folk *finally* noticed Wodent Wheels. (Thanks!) Not actually a remnant – it's my new project.*

"Damn good run" is damn right – even better than we ever expected.]

[PF – Gang: And if your rodents are ever in the need for some high-tech exercise, check out the other transoniq.com: these things are to exercise wheels as Porsches are to Cavaliers. You go, Eric!]

[TH – Changing the world one critter at a time...]

Dear Eric, Jane, Pat, and all the writers over the years,

Before everything fades to black and we all go into mourning, I just wanted to add my thanks for all the great information, support, and good humor (and ventilation space) this publication has provided to us Ensoniq owners.

I've been aboard since 1991, and will greatly miss this meeting place and the great professional community it has created. Best wishes to all of you in whatever comes next!

Gratefully yours,

John Zahody
JPZahody@aol.com

Dear Transoniq Hackers,

I'm in the final stages of finishing a new **ASR-10** sound set (mostly African and Native American percussion, see my ad in the *Hacker* classifieds). All that remains to be done is a bit of tweaking of the patch selects, and finishing up some of the printed documentation.

But I'm still wondering how a collection of sampled sounds is copyrighted, i.e. what form to use. I assume it must be the PA (Performing Arts) form, but I'd like con-

firmation. Is anyone out there who has gone through this process willing to share this information?

Thanks,
Phil Rogers
cuzco@unich.edu

[TH - From what we've been able to gather, most sound vendors don't actually go through the extra step of submitting a PA form. Technically, if it's like just about any other publishing, it's copyrighted as soon as you put a notice on it saying that it is. The extra little steps beyond that make it easier if you somehow find yourself in court. Just "an observation" - not legal advice...]

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