

Transoniq Hacker

The Independent News
Magazine for Ensoniq Users

All In the Family

Robby Berman



Product: ASR Samples of the TS.
From: James Samp, 90 N. Bell Street,
Fond du Lac, WI 54935. Phone: (414)
922-4337.
For: ASRs.
Price: \$6 per disk, \$30 for all six (36
sounds).

I'm often perplexed when I read letters in the Interface requesting that Ensoniq manufacture a combination sampler and synth — isn't that what the ASR family samplers already are? (And, yes, I'm often perplexed anyway.) The ASRs do have a full suite of synth-style LFOs, filters and so on. Except for the fact that the synths come with samples built-in, all chopped down and memory-efficient right out of the box, the instruments are fairly similar (of course, the synths can't sample, though the TS series can play back samples).

There's no reason, therefore, that the ASRs can't be used as synthesizers, and powerful ones at that. Ya just need the basic building blocks. By now you've probably noticed that the TS is full of great waves. It's a terrific, expansive-sounding instrument with a rich sonic character all its own. Why not steal... er, sample it? For those of you with TS envy, the TS-10 Samples for the ASR offered by James M. Samp (can that really be his name?) of Fond du Lac Wisconsin provide an excellent library of TS sounds. He's offering six HD disks of TS samples for 6 bucks apiece, or \$30 for the whole bunch (36 sounds). Given the amount of care that he clearly lavished on his sampling, looping and programming, I'd say the price is unfair — to him.

Perhaps the most obvious attribute of the TS is that its sounds are so dang big. Samp (okay, bud, what's yer real name?) has obviously done his time under headphones, since his samples are very stereophonic, just like the TS. In many cases, Samp has broken down pre-existing TS sounds into their component layers, and sampled, looped and programmed each separately. Some of the samples take advantage of the ASR effects, while others capture the TS processor. Samp makes use of the standard real-time ASR controllers: pitch bend, mod wheel, Patch Selects and

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pressure. All of the sounds were sampled at 29.7k, a perfectly appropriate sampling rate for the TS.

Do these samples sound exactly as crispy and clear as their counterparts on the TS? Nah — that's not possible, since the samples are a generation removed in fidelity. However, they're mostly pretty close, and when they're not, Samp uses them as grist for his own worthwhile sounds that wind up being only loosely based on the TS originals. I found myself looking up the TS sounds and comparing them to Samp's, since many of his use TS names. This is a mistake, I think, since Samp samples have evolved into something quite new, and stand well on their own. No need, really, to A/B the ASR and TS here. Buyers shouldn't necessarily expect that just because Samp has a sound called "Whales," and so does the TS, that the two sounds are the same. In fact, Samp's Whales is a spooky, pitched patch (playing a lot of notes does sorta evoke a whale meeting before it's been called to order), while the TS's is more along the lines of a sound effect of real whales.

The TS sounds that Samp has chosen to source are generally those that don't emulate acoustic, real-world instruments (there are a few notable exceptions to this). A smart move, I believe, since the TS is capable of too much interesting stuff to be hobbled by concerns of realism. Besides, as Samp's introductory letter suggests, you've probably got those bases covered already.

Quite a few of these sounds are striking — if you long to turn your ASR into a synth, you'll likely be pleased. Consider these samples as a palette of evolving textures, rather than basic tofu-and-potatoes sounds. Since Samp has built these complex timbres from individual TS waves, they do use quite a bit of the ASR's polyphony. It's not uncommon to find sounds here using four or more ASR layers. But, hey, beauty always has its price.

Some of my favorites?

Well, I quite like TS PERC+MORE, which Samp describes as "a starship passing through a radiation belt," with the X0 Patch Select listed as "a rock pelts the ship's hull," and the XX variation "a milder intensity of radiation." Actually, these

descriptions, though they seem silly here in this review, do evoke the lonely emotional subtext in this sound.

Samp's descriptions are quite helpful throughout — they're a tad goofy on the surface, but have you ever tried to describe the indescribable? My favorite sounds here all belong in this category, with no counterparts in the real world. The notes are, in general, pretty funny, though they're provided on one long (about 5 feet) printout sheet, which I've tossed across the room twice now in frustration (my cat Rory is currently using it to sleep on down there on the floor). Buy some samples — maybe the man will buy some perforated paper.

Back in the realm of the familiar, BRAVO is amusing — when you're done playing this stringy sound, whack the keys: an orchestra hit appears, followed by applause. TS CELESTIAL is a big crispy string sound, nearly bordering on a big pipe organ. HARPSICHORD is a bit more electric than the TS original, while Samp's CARILLON is more authentic-sounding, due to its warmth, than the TS version. There are several synth basses that make effective use of the ASR's mono modes as they rip across your headphones or speakers. Some of the sounds employ the TS Hyper Wave rhythm grooves, with a single bass note superimposed — you can play drums and bass with one finger, if you make your moves on quarter notes. Only a few of the sounds fail to make the TS-to-ASR conversion well — VOXANO is much better on the TS, since the samples pitch-stretch unpleasantly on the ASR, and Samp hasn't turned them into something unique and new. Thank goodness he has captured the late, lamented CHOO-CHOO from the first TS rev.

The TS-10 Samples for the ASR-10 are a great way to jumpstart your ASR-10 or 88 into synthdom: lotsa big textures, good loops and expressive fun. For more info, call James M. Samp around 9 am CST at 414-922-4337, Monday through Friday. ■

Bio: Robby Berman is a sneaker-clad musician living in snowy Saugerties, New York, quite literally following in other peoples' footsteps until Spring. His latest album is "Rings and Rings."

Front Panel

RND (🎵🎵)

Ensoniq Announcements

New sounds from Ensoniq!

ASR/TS/EPS-16 PLUS (CD-ROM)

SCD-1 Chicago Signature Series — it took a while to clean up

all the legalities but it's finally here. 600 MB of sounds from one of the top-selling bands of all time. Horns, vocals, guitar, bass, organ, loops and more. \$249.95 suggested retail.

SCD-3 Steve Gadd "DrumScores" — a 2-CD collection of grooves and drum sounds from this legendary drummer (currently on tour with Eric Clapton!). These are the most amazing loops and samples you've ever heard! Don't take our word for it, see the review in the November 1995 issue of *Keyboard*.

\$249.95 suggested retail. Also available in audio format from Q Up Arts.

TS Series (floppy disk)

TSD-1006 Wave Works — 120 great synth sounds and effects for the TS-12 and TS-10. \$19.95 suggested retail.

KT Series (ROM cards)

KTC-3 Church/Gospel sounds — 160 sounds perfect for gospel and worship music. \$99.95 suggested retail.

KTC-4 Country sounds — 160 sounds for both styles of music (that's Country and Western!). \$99.95 suggested retail.

Hacker News

If you or anybody you know has the ability to put patches from the SQs, KTs, VFX/SDs, or TSs into a format that can be shuffled around the Internet, please contact us at 503-227-6848.

We've got a new page at our Web site (<http://www.transoniq.com/~trnsoniq>) — *On-Line Interface*. This is a spot where you can drop your letters to the *Interface* and Answer

Czar Clark Salisbury will post a response. Readers, Transoniq-Net volunteers, and third-party vendors are also invited to drop by to browse and answer questions. This will be an open forum and should attract questions and answers from even non-subscribers. The turn-around time should be such that this will be a much more *interactive* column. Letters and responses will still go to Ensoniq for comments and then be incorporated into our regular *Interface* column.

And *Hacker* writer Tom Shear appears on a new CD. The CD is from Arts Industria Records and is called *Construction No.009*. It features tracks by his project, Assemblage 23, as well as Skeleton Key, a Michigan band Tom does vocals for. Tom says there are a number of other really talented unsigned industrial bands featured throughout. People seeking info on it can contact Tom directly (TomShear@aol.com), or the label itself at: Arts Industria, PO Box 4142, SouthBend, IN, 46634-4142.

Third-Party News

3D Sounds has gone online with a complete catalog. Extensive lists of contents of products. They can be found on the World Wide Web — <http://www.in.on.ca/~dwhite/3dsounds>.

HYPERSOINQ

New Product Announcements

3D Sounds has a new CD-ROM for the ASR Series, TS Series and EPS Series of instruments. *The Vintage Synth CD-ROM* has hundreds of killer synth sounds from all eras including basses, synths, pads, effects, and electronic percussion. Perfect for dance, rap, industrial, hip hop, trance and ambient music styles. The price is only \$39 (U.S.) plus \$2 shipping. 3D is also set up now to accept Visa orders and they've lowered the price of the *ASR/TS/EPS/K-200 Sampler Bank* to \$45 (U.S.) plus \$2 shipping. For further information, contact: 3D Sounds, Box 22065, 50 Westmount Rd. N., Waterloo, ONT Canada, N2L-6J7, phone: 519-747-0282.

* * *

Syntaur Productions gets loopy. Two new products, designed to form the foundation for new tracks, are now being offered by Syntaur Productions. Drum and rhythm loops have been created in two different formats for different Ensoniq keyboards. *Phat Loops* is Number 14 in Syntaur's collection of 4-disk sample sets, and is geared toward dance and rap music. These sampled drum loops were created mostly by Kyle Kee, one of Syntaur's programmers. Kee first sampled the percussive sounds, both by programming an Arp 2600 and by miking live

drum sets. The sounds were then sequenced using Vision software, and played back through various audio effects for distortion, compression, etc. Finally, this rhythm was sampled into the ASR-10 and programmed for patch select variations. The result is a collection of grooves with a very organic sound and feel — very different from a sterile drum machine sound.

Tony Ferrara, an Ensoniq staff member and a frequent visitor to the Hacker, has created different types of rhythm loops for the SD-1 (soon available for the TSs). *Drum Beats 1* is a collection of 59 sequenced drum patterns, in a variety of rock, funk, and ballad styles, designed to provide a basic groove for composers who want to get their song ideas down without worrying about getting a rhythm foundation programmed. Because these are sequences, they can be easily modified in several ways — tempo changed, different tracks muted or shifted slightly relative to each other — whatever the composer prefers.

For further information about *Phat Loops* (\$29.95), *Drum Beats 1* (\$39.95), or any other Syntaur sound product, contact: Syntaur Productions, 5402 W 43rd St., Houston, TX 77092, phone: 713-682-1960.

How to Create an EPS Disk to Replace Your Drum Machine

Avi Weinberger

A lot of us musicians have made extensive use of drum machines before we ever purchased the EPS. And since those of us who have used them probably have tons of sequences using this drum machine, it would be a nightmare to change all the sequences to utilize EPS drums instruments. Given that, it would be very useful to create a disk that would be compatible with the drum machine. This disk would enable us to play all the sequences we already have directly on the EPS, without changing them, and, further, would let us sell the drum machine. Since I spent quite a bit of time making a drum instrument to replace a drum machine with single EPS disk I would like to share my experience with you.

This article goes step by step, so even if you have not done much programming on the EPS, it will be relatively easy to follow.

To Start

1. Find a drum instrument disk that includes sounds that suit your taste.
2. Load the drum instruments to "instrument-track" #1.
3. Press "command," "instrument" and go to "create new instrument" by pressing the left-right arrows.
4. Press "instrument-track" #2 and "enter-yes."
5. Create a new layer in the new instrument you just created by pressing "command," "layer" while you are in "instrument-track" #2. Then press "enter-yes."

Copying a Wavesample to the New Instrument

1. Press "instrument-track" #1 again.
2. Press "edit" and move the cursor from "lyr=1" to "ws=all."

3. Play the notes on the EPS keyboard until you hit the sound you want to transfer first. When playing the keyboard, look at the screen and see how the wavesample number changes to show which wavesample you are playing.

4. Press "command," "wavesample" and press the left-right arrows until the screen shows "copy wavesample."

5. Press "enter-yes." Screen will show "to inst=unnamed inst."

6. Press "enter-yes." Screen shows "to layer=1."

7. Press "enter-yes." Screen shows "wavesample 1 created" then goes back to "copy wavesample."

You have just copied the sound you like.

Explanation of MIDI Key Numbers

After copying the wavesample, we have to adjust its range to that of drum machine. The place of the specific drum sound in the drum machine is usually given by the MIDI key number. The EPS keyboard range goes from MIDI key number 36 (lowest point on the keyboard), to MIDI key number 96 (highest point on the keyboard).

In the MIDI definition, MIDI key number 0 starts the range. This means that MIDI keys number 0 to 11 (the first 12 semitones) is octave number 0. MIDI keys number 12 to 23 are octave number 1. MIDI keys number 24 to 35 are octave number 2 and so on.

Now, here is the catch. For some reason, Ensoniq defined MIDI keys number 36 to 47 as octave number 2 and not octave number 3. So when you calculate the octaves, be sure to reduce one octave when doing it on the EPS.

Adjusting the Range of the Wavesample Created to Be Compatible With Your Drum Machine

1. Press "edit." Screen shows "unnamed 1 lyr=1 ws=1."
2. Press "set keyboard range." Screen shows "ws rng lo=xx hi=xx" where xx is the existing range of this wave-sample.
3. Here is the most important portion. You have to calculate what note you should put at the limits, according to the MIDI key number. For instance, the bass drum of the Roland 505 is at MIDI key number 35. If we use the formula described above, MIDI key number 35 is in octave 2, note B (B2). In order to adjust it to the EPS octaves, we have to reduce one octave, which means we will use note B in octave 1 (B1).

Since note B1 is below the EPS keyboard range, use the up-down arrows until the "lo=B1." After adjusting the low boundary move the cursor under the "hi=xx" and set the high to "hi=B1." This will put the bass drums exactly on MIDI key number 35 which is B1 in the EPS.

4. After completing the range setting press "set keyboard range" key again to keep the setting that you had made.

Important note!! During this process never try to press "set keyboard range" key when you are in "load" mode. This will make you limit the whole instrument range, rather than just the wavesample range.

Readjusting the Pitch of the Wavesample

Since we were moving the wavesample range from the original pitch, we have to readjust the range to bring it back or to change it if we wish.

1. Press "edit" and make sure you are in the correct wavesample.
2. Press "pitch." Screen will show "root key=xx fine=+0."
3. Play the wavesample key and use the up-down arrows to change the pitch and bring it to the pitch you want. Small tip, first adjust the "root key" to be the same as the key you placed the wavesample on (B1 in our example). In most cases, this will be the correct one. If not, the desired root key will be near it.

Next Wavesamples

Follow the preceding steps to create all the other drums sounds wavesamples.

Save the Instrument to disk

1. Press "command" and then click the "instrument" button twice. The screen will show "save instrument."
2. Press "enter yes." The screen will show "name=unnamed inst."
3. Change the name to the name you want by using the data entry slide or the up-down arrows to select the characters.
4. After finishing the name changing press "enter-yes" and the instrument you had just created will be saved to disk.

Tips

1. To conserve memory try to use the same wavesample for different drums. For example: low tom, mid tom and high tom can be created from the same wavesample. Suppose you have discontinuity in the drum sounds. For example, take the Roland 505. The low tom is at MIDI key 41, hi-hat at MIDI key 42, mid tom at MIDI key 45 and hi tom at MIDI key 48. So you would do following. Copy tom wavesample to MIDI key 41. Copy hi-hat wavesample to MIDI key 42. For mid tom, copy "parameters only" from low tom to MIDI key 45. Set the range of the tom starting at MIDI key 45 up to MIDI key 50 so the pitch for the hi tom will be higher than the mid tom.

If the difference between the mid tom and hi tom is not enough, you can copy the parameters again to MIDI key 48 and adjust the pitch of the hi tom as you want.

2. Drum sources. You are not restricted to taking all the drum sounds from one disk. For example, you can take the bass drum from the Brett Bash disk and the hi hat from the Power Drums disk.

And that is how to make a drum machine compatible disk for the EPS. So now you can sell your drum machine because you really don't need it any more and if you cannot think of anything really swell to buy you can send the money to me. ■

Bio: Avi Weinberger is an electronic engineer with a second degree in business administration.

"The KS's (De)Fault Lies Not in Our Stars..."

Dan Rohde

"...but in ourselves that we are underlings." — Cassius in *Julius Caesar*. But enough about the irrelevant power struggles of ancient Rome.

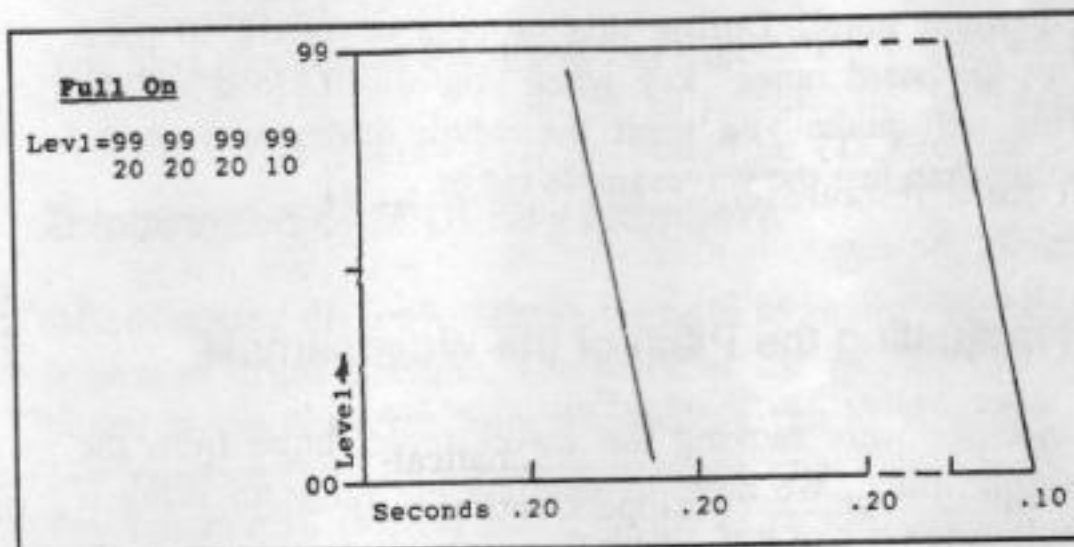
Ensoniq's KS-32 and other keyboards come equipped with handy gizmos called defaults, 17 of them, in fact, listed on page 6-22 of the *Musician's Manual*. To understand what they can do, however, does require some investigation. For those of you who are visual learners, I've graphed these defaults not only to show how these 17 typical contours look but also to help you get a better handle on what exactly the 13 settings within the KS's envelopes do.

Don't fret if this stuff looks odd at first. A default is the result of considerable technological development, to say the least. You should know, though, that an envelope is a modulation source that can be applied to a signal. It can be programmed to raise and lower Levels of pitch, filter, and amp in various ways over time. They can even be used to a negative degree, though I haven't shown those in this article. (You could hold a pocket mirror underneath one to see what a negative envelope would look like.)

To avoid trying to explain too much at once, I will describe how each parameter functions as the need arises. I will assume you know what the eight Level and Time values mean. Beside each illustration, I've listed only those values other than zero. Mode=Normal unless otherwise stated. I've also converted the time values to seconds. The dotted lines indicate where the Sustain occurs.

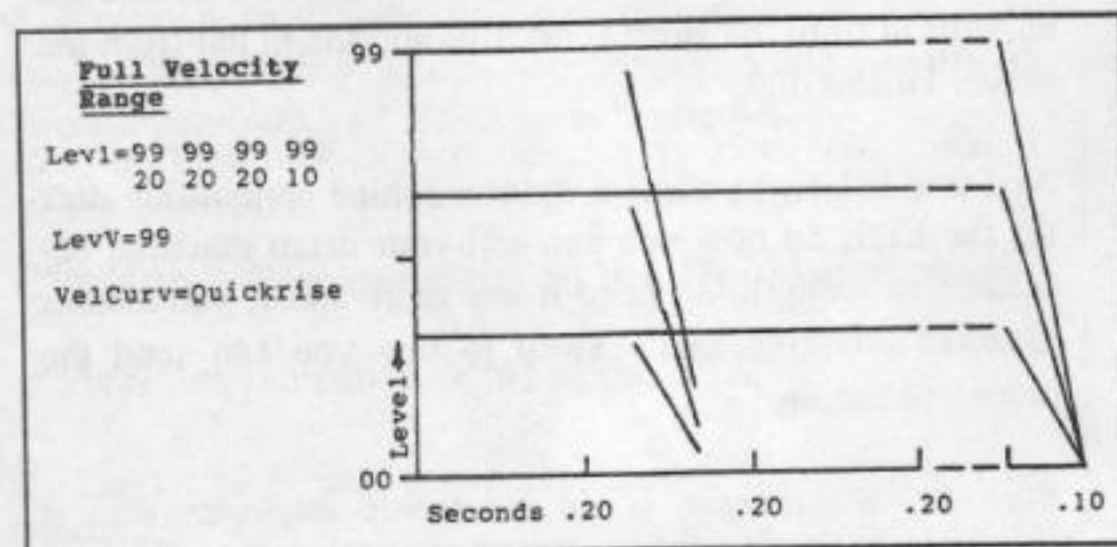
Full On

The first default sets all Levels at 99 with a fast Release of 0.10 seconds. This would work well for the amp envelope of an organ program or any other instrument requiring an immediate Attack. Since LevV=00, no VelCurve is in effect.



All Zeros

This default is a quick way to clear all settings to 00. Imagine an infinitely small point in time and space. (This was the easiest one to draw [·].)

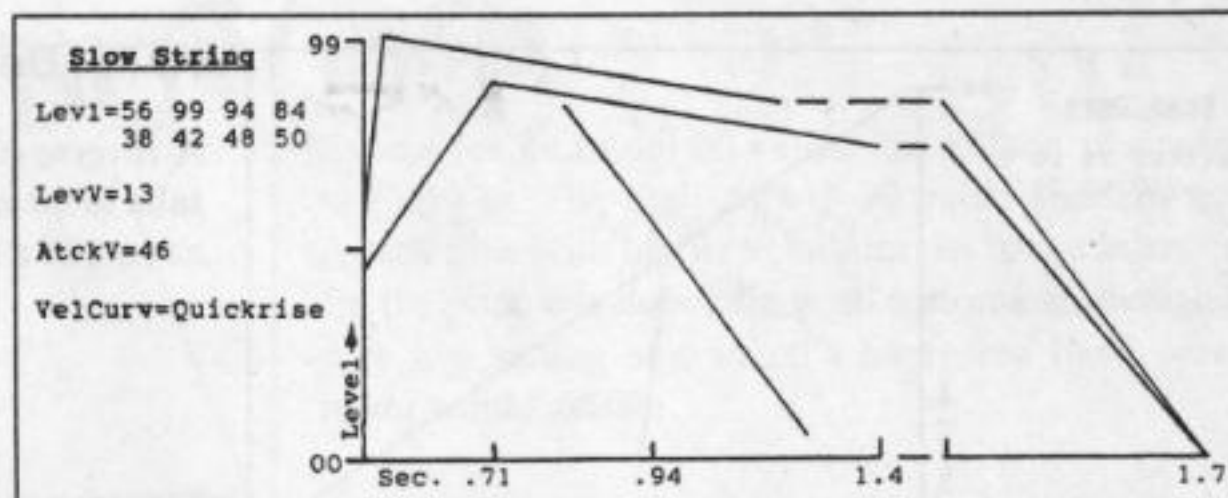


Full Velocity Range

This one is identical to Full On with one big difference: LevV=99, which means the Level (not the time) can vary from 00 to 99 depending on how quickly the key is struck. A LevV value other than 00 also automatically brings the VelCurve into effect. As shown on page 6-19 of the manual, the linear curve gives a straight response slope. That is, any velocity value affects output at a 1 to 1 ratio. This default's LevV is extreme, higher than usually chosen for most sounds.

Slow String

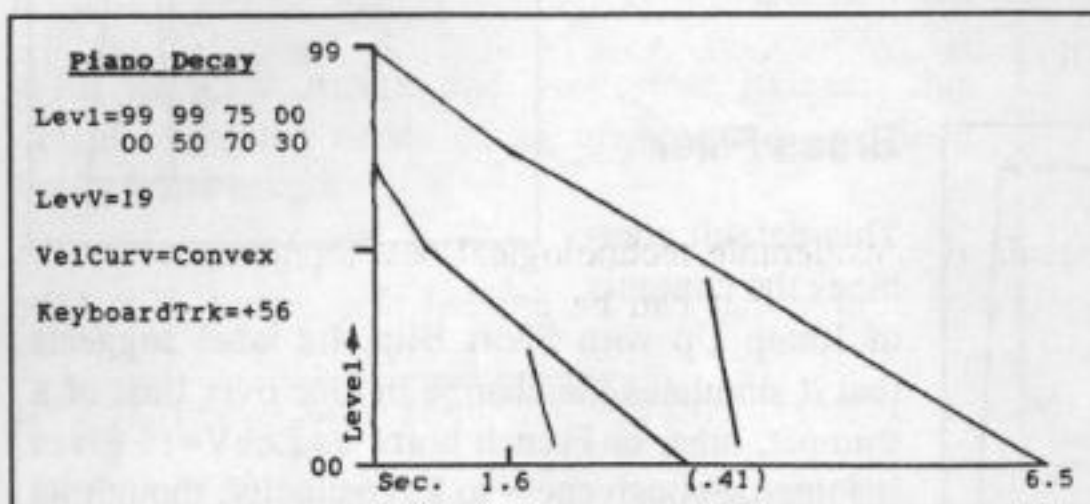
This default is characterized by a slower, variable Attack time. Struck at slowest velocity, the Level does not reach 99 for a maximum of 0.71 seconds. At highest velocity, the Attack time is reduced to about one-third second. LevV=13 gives this default some degree of real time velocity control over its Levels, too. Quickrise is the most sensitive of the KS-32's four velocity curves. That is, a key struck at only 50% velocity reaches maximum Levels. Note also its very slow 1.7 second Release.



Piano Decay

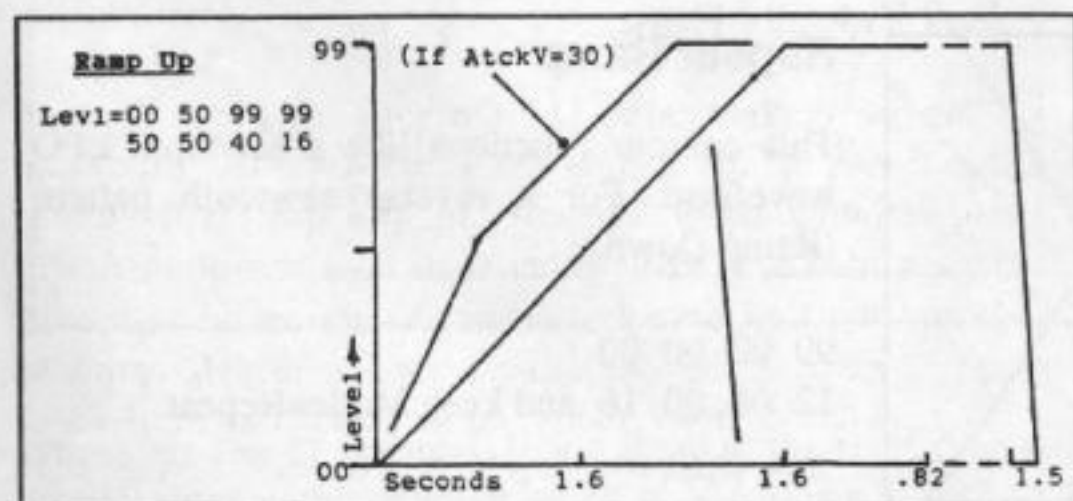
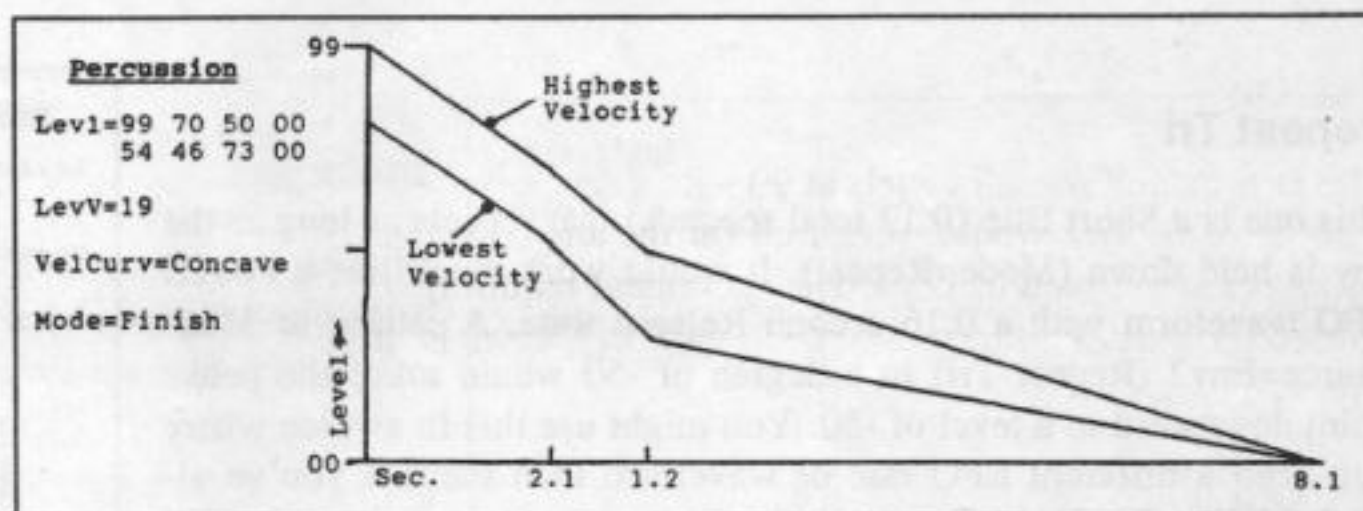
Designed to simulate a piano, this default begins with an immediate Attack (0.0 seconds) followed by a fairly straight Decay slope to 00. LevV=19 means the Initial Level can vary by about 20%, depending on key velocity. The Convex VelCurv makes amplitude most variable in the lower velocity range, with the flatter end of the curve affecting the higher velocities. In other words, softer velocities have a higher degree of responsiveness than higher velocities. To further simulate a

piano, Keyboard Tracking=+56. This setting shortens all envelope times except Release of keys above middle C. The higher the note, the shorter the overall Decay time. Conversely, the lower notes Decay more slowly.



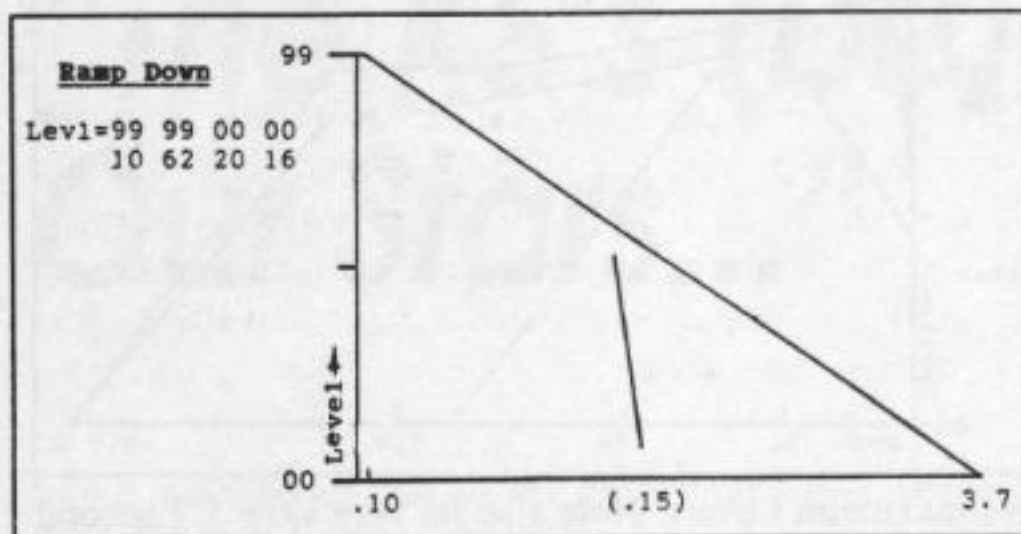
Percussion

Designed for drums, cymbals, pot lids and other hit things, this default has the same LevV=19 as Piano Decay, giving it some responsiveness to velocity. Its curve, however, is Concave, the least responsive to lower velocities and most responsive (steepest part of curve) to higher velocities. Mode=Finish means that any sample played will automatically run through the envelope's entire cycle — though the Sustain value is ignored — whether or not the key is released. This ensures that a percussion sample will not be cut off in the midst of its Decay time. The length of the sound is determined by the length of the sample.



Ramp Up

Looking like its label, this envelope is a straight upward slope. It reaches Level 99 after a slow 3.2 seconds, yet it has a fast Release of 0.15 seconds. Its use? Well, remember these defaults are meant to be starting points. Perhaps different Attack values, such as 30 which I've added to the illustration, would give it more uses.

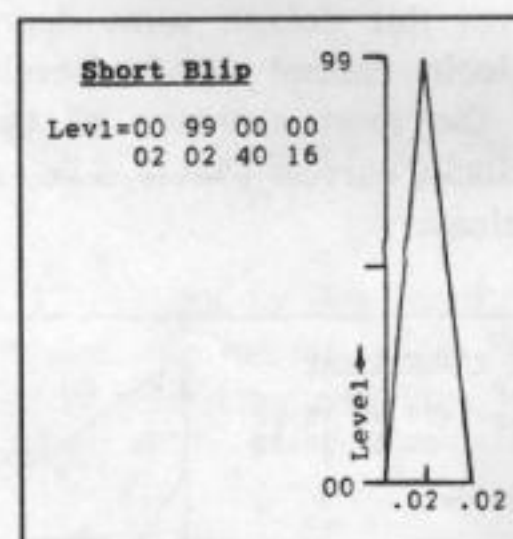


Ramp Down

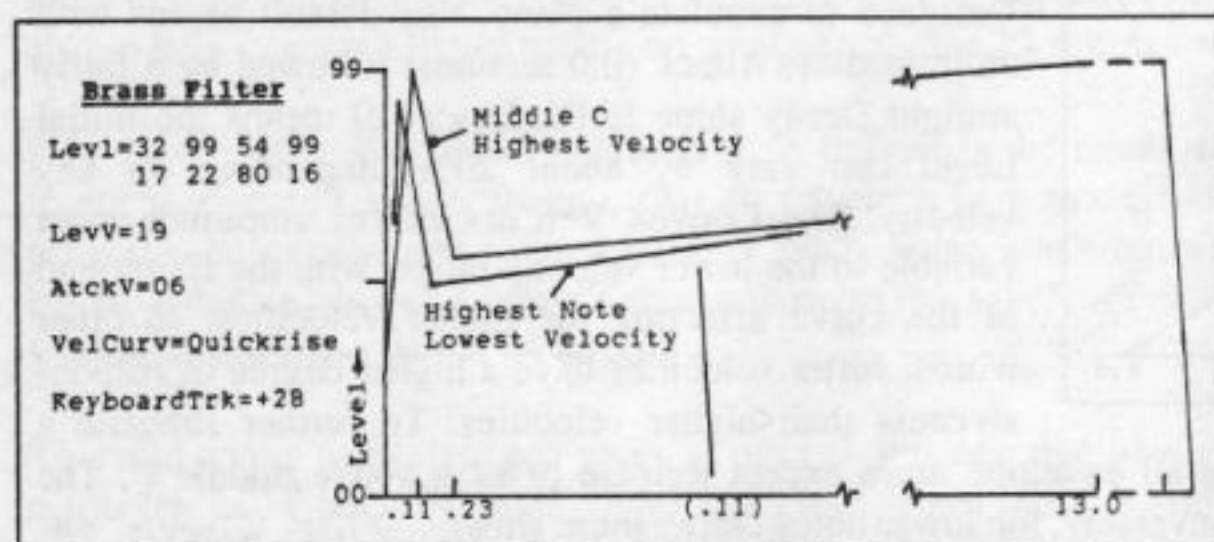
A reverse of the Ramp Up pattern, it begins at Level 99 and falls to 00 in a straight slope after 3.7 seconds. Uses? Maybe as part of a layered sound?

Short Blip

This is an almost instantaneous ascent and descent from Level 00 to 99 then



back to 00. Used for an Amp default, it might work for the sound of a submarine's sonar?



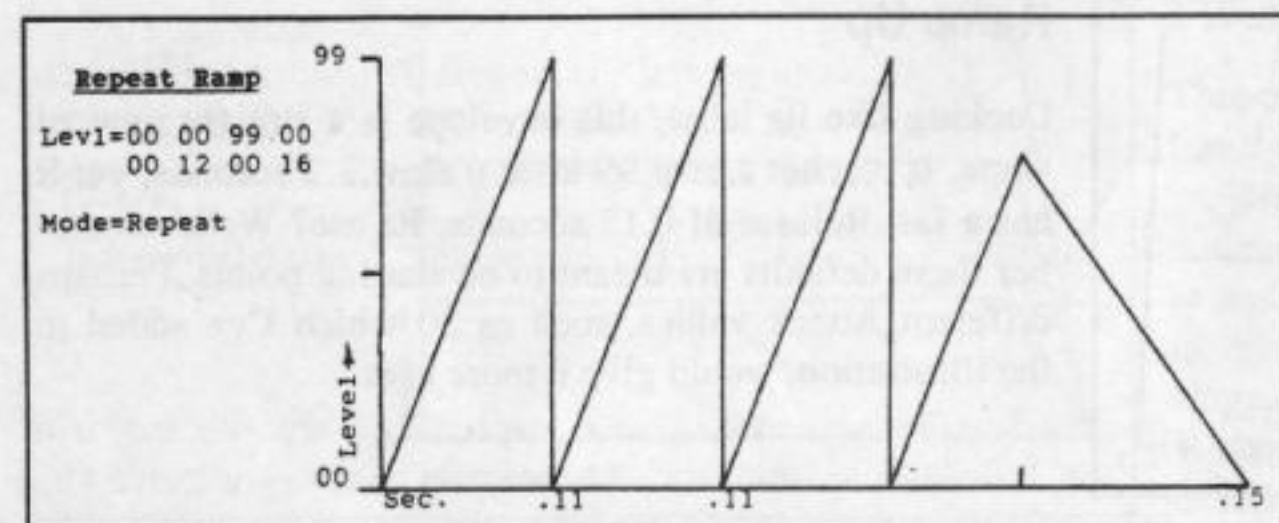
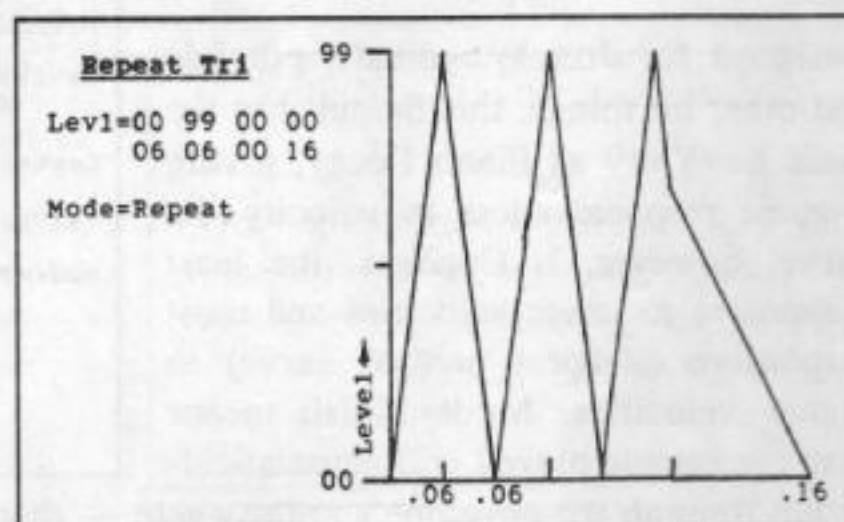
Brass Filter

This default combines the contours of Ramp Up with Short Blip. Its label suggests that it simulates the change in tone over time of a trumpet, tuba, or French horn. Its LevV=19 gives it some responsiveness to key velocity, though its AtckV=06 gives it a lesser degree of Attack time variability. Its Quickrise curve makes it highly responsive even to lower velocities. Keyboard-

Trk=+20 shortens the higher notes' overall Time values and extends the lower notes.

Repeat Tri

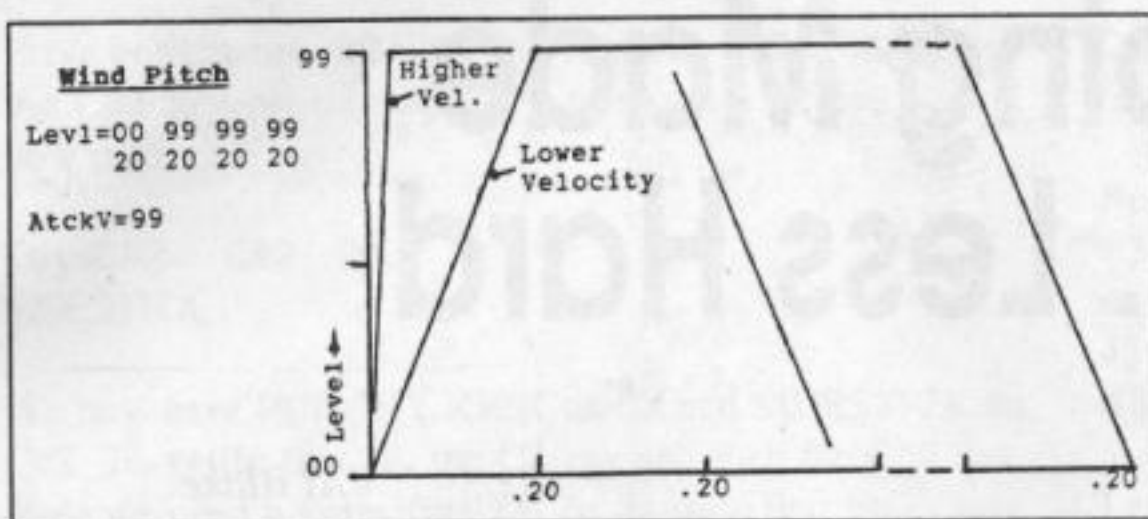
This one is a Short Blip (0.12 total seconds) that repeats as long as the key is held down (Mode=Repeat). It would work much like a PosTri LFO waveform with a 0.16 second Release time. A setting of Mod-source=Env2 (Repeat Tri) to a degree of -50 would make the peaks point downward to a level of -50. You might use this in a voice where you need a different LFO rate or waveform than the one you've already chosen for the LFO.



Repeat Ramp

This contour functions like a sawtooth LFO waveform. For a reverse sawtooth pattern (Ramp Down):

99 00 00 00
12 00 00 16 and keep Mode=Repeat.

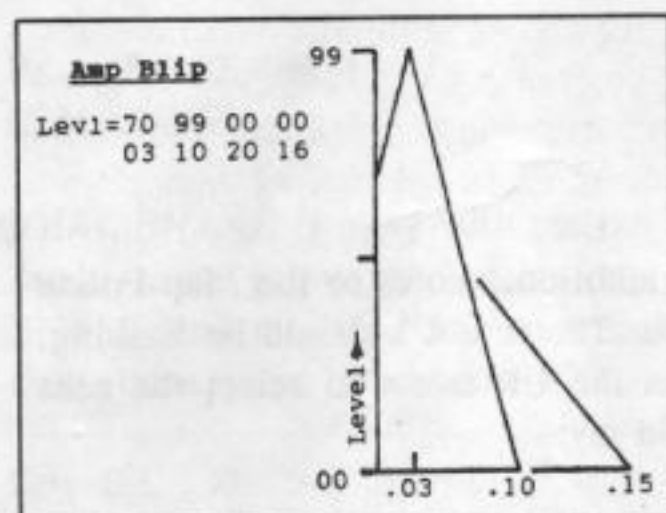
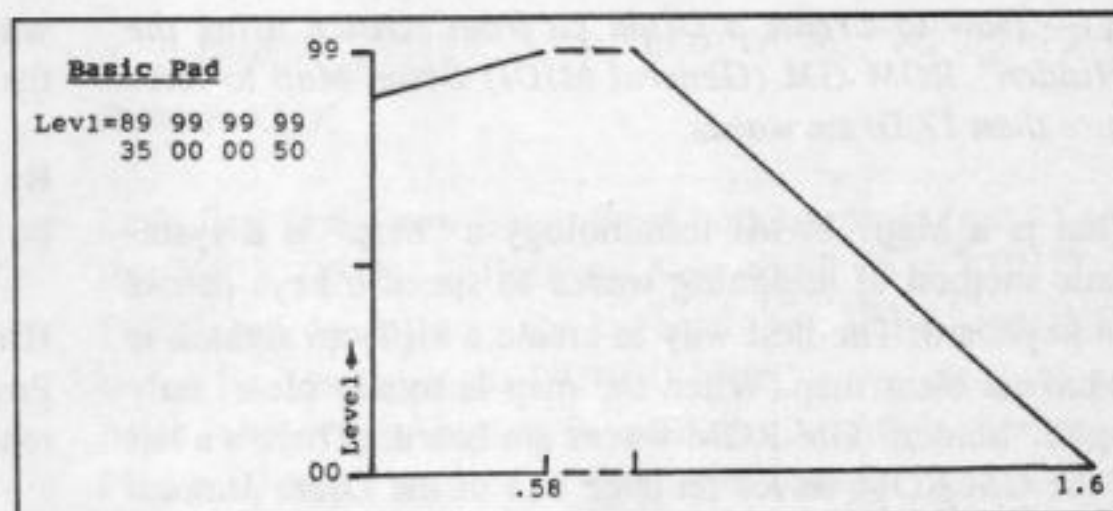


Wind Pitch

Except for its Initial 00 value, this default is similar to Full On. The high AtckV=99 value shortens the Attack time with higher velocities. Its use is intended for the pitch envelope of a wind instrument, though a very low setting at a sound's hardwired Env1 parameter would suffice.

Basic Pad

With its slow Attack and very slow Release, this default suits the needs of an unobtrusive, sustained background sound.

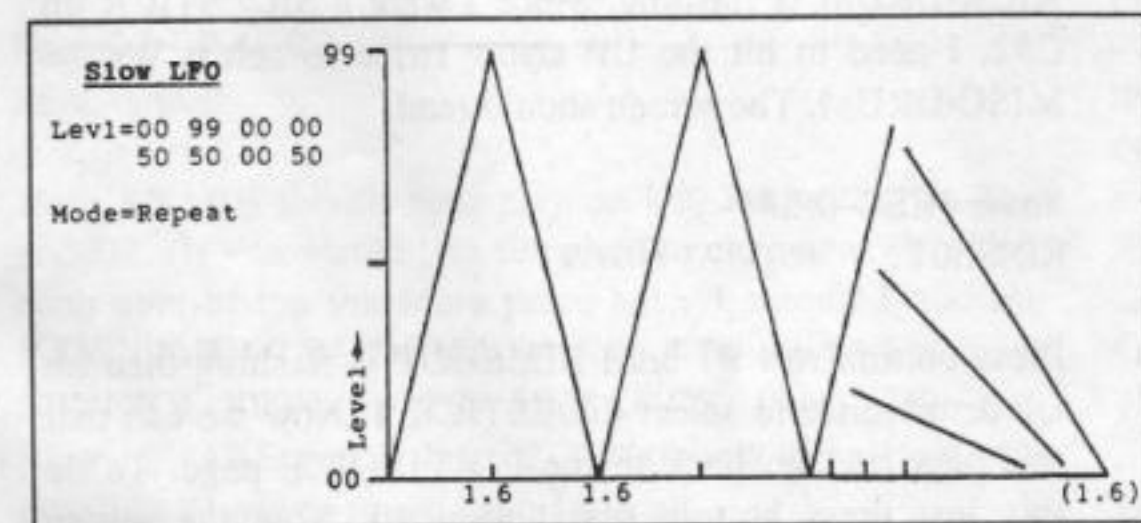
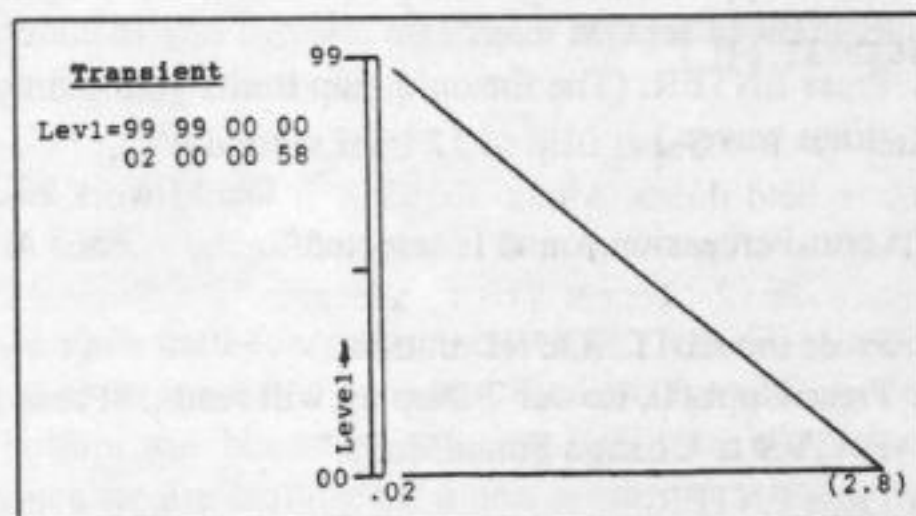


Amp Blip

This envelope is similar to Short Blip except that its Initial value is 70. The sample would sound immediately then rise to 99 after only 0.03 seconds. The 0.15 second Release is slower than if the key is kept down.

Transient

This looks similar to Amp Blip except for its sheer cliff drop to 00. Though it has no Sustain, its Release is a looong 2.8 seconds. It appears to be ready for other settings before it could actually be used as a Transient contour.



Slow LFO

This default works like Repeat Tri, but it has a much slower overall cycle time of 3.2 seconds. It could be used like a PosTri LFO waveform. Its Release is a slow 1.6 seconds.

Those are the 17 defaults. Using them at the right time and place takes some experience, especially when you begin to use all three within a voice, or all nine within a KS-32 sound. Considering the KS's 32-voice polyphony, you could fire up as many as 288 (!) envelopes at once. Would the world as we know it end? Who knows? ■

KT Drum Mapping Made Eas... er.. well.. Less Hard

Al Blake

Or — How to Create a Drum kit from scratch using the "Hidden" ROM GM (General MIDI) Drum Map to have more than 17 Drum waves.

What is a Map? In MI terminology a "Map" is a systematic method of assigning waves to specific keys across the keyboard. The best way to create a kit from scratch is to have a clear map. When the map is totally clear, only the 53 "hidden" GM ROM waves are heard. (There's a list of the GM ROM waves on page 114 of the *Users Manual* which is helpful.) The fastest way to clear the map is to start from the Select Sound button and do the following:

If a Drum or Percussion sound is selected:

1. Press the EDIT SOUND button.
2. Press Upper 0, Lower 3 Display will read... "Press ENTER to set GM map."
3. Press ENTER. (The Ensoniq map limits you to only 17 drum waves.)

If a non-Percussion sound is selected:

1. Press the EDIT SOUND button.
2. Press Upper 0, Lower 7 Display will read... "Press ENTER to Change SoundMode."
3. Press ENTER.
4. Press Upper 0, Lower 3 Display will read... "Press ENTER to set GM map."
5. Press ENTER.

This procedure sets all of the 17 possible waves to a Lo key of A0 and a Hi key of A0, which leaves you with the 53 hidden ROM GM voices. In the display is:

Key=??? A0 :A0
PUNCHY KICK

(The first A0 is the "Lo" key, the second A0 is the "Hi" key.)

We can start building our Drum kit here. (We'll do 5

waves and then you should be able to go from there using the same method.)

By the way, Repeatedly pressing bottom row button 0 can be used to select the four parameters on this page.

Hit bottom row 0 slowly until the first A0 is flashing. Press C2 on the keyboard twice. Now your screen should read:

Key=C2 C2 :C2
PUNCHY KICK

Please don't play any additional notes or the Map Police will come to arrest you. The first C2 should be flashing. Now we need to press the UP arrow to select the next KEY. The screen should say:

Key=C#2 A0 :A0
PUNCHY KICK

Our task now is to select a wave for C#2. Press bottom row button #1 which selects the WAVE CLASS. Use bottom row button #1 as a cursor to select the two parameters on this page. Press bottom row button #1 until Wave=KICK-DRUM is flashing. Since I want a SIDESTICK on C#2, I need to hit the UP arrow twice to select Wave=MISC-DRUM. The screen should read:

Wave=MISC-DRUM
RIMSHOT

Press bottom row #1 until RIMSHOT is flashing then hit UP arrow once to select SIDESTICK 1. Now we can exit this page and go back to the EDIT VOICE page. To do this just press bottom row button #0. Now the screen should read:

Key=C#2 A0 :A0
SIDESTICK

Press bottom row #0 until the first A0 is flashing. Press the C#2 key on the keyboard just twice. Screen should now read:

Key=C#2 C#2 :C#2
SIDE STICK

We now have PUNCHY KICK on C2 and SIDE STICK on C#2. To verify this, hit the C2 key and then the C#2 key. Now we need a snare for D2. To do this, first make sure your screen reads as above, then hit the UP arrow once to select D2. Screen should read:

Key=D2 A0 :A0
PUNCHY KICK

Press bottom row button #1. Use bottom row #1 to select Wave=KICK-DRUM. Hit UP arrow once to select Wave=SNARE-DRUM. Screen should read:

Wave=SNARE-DRUM
REAL SNARE

REAL SNARE is okay with me but if you wanted a different snare just press bottom row #1 to select REAL SNARE and hit UP arrow to select Snare waves. Once that's done, press bottom row #0 and screen should read:

Key=D2 A0 :A0
REAL SNARE

Now we need to define a key range. Now what if I want the REAL SNARE wave to occupy more than one note, say D2 to G2? Easy! First use bottom #0 to select the first A0 (which is the LO key). Press D2 Once on your keyboard. Then press G2 Once. Now the screen should read:

Key=D2 D2 :G2
REAL SNARE

Your SNARE should now play on D2, D#2, E2, F2, F#2 and G2. (If you would like the pitch to change as you play each note of the the snare press bank 1 screen 1 and set KEYBOARD TRACKING to ON.) Now we should have PUNCHY KICK on C2, SIDE STICK 1 on C#2, and REAL SNARE on D2 thru G2. We've only done 3 out of a possible 17 waves so we have 14 to go.

What if I now want the Hidden GM waves to occupy Keys G2# to B2? Easy, don't do anything just play within that range and you should hear a closed hat on G#2 and an

Open hat on A#2, and Toms on A2 and B2. (See page 114 of the owner's manual.)

Now we need to continue, building our own drum pad for C3. This will be the 4th wave out of a possible 17. But by utilizing the "hidden" GM ROM waves, we'll end up with 48 waves! (This is what separates the KT-76 from the KS-32 mapping system.)

Let's fill our Kit with a variety of different waves. Play a C3. Your display should now read:

Key=??? A0 :A0
PUNCHY KICK

Let's first find a new wave. Press bottom row button #1 so that KICK-DRUM is flashing. Now scroll up to TUNED-PERC, but do not play the keyboard yet. VIBRAPHONE is the first wave in the TUNED-PERC wave class. Now press bottom row button 0 until the 1st A0 is flashing. Play a C3 twice and only twice. Don't worry right now if you can't actually hear the wave. Your screen should now read:

Key=C3 C3 :C3
VIBRAPHONE

Do not play additional notes yet as you will not hear Vibraphone as yet. Instead, hit the UP arrow to advance to the next Key:

Key=C3# A0 :A0
PUNCHY KICK

Now we have used four waves out of 17. The KT is now saying that no wave has been specified yet for C3#. Let's press bottom row button #1 to select KICK-DRUM wave class since we are looking for a new waveform. UP arrow to PERCUSSION and we should have VIBROSLAP as our wave. Now hit bottom row button #0 until the first A0 is flashing. Press C3# twice and only twice. Your screen should read:

Key=C3# C3# :C3#
VIBROSLAP

Please do not play any other notes or the dreaded ??? will appear! Eventually we are going to be able to play all of our waves. Now with the first C3# flashing hit the UP arrow to D3. Display reads:

Key=D3 A0 :A0
PUNCHY KICK

Now we're ready to find a wave for D3.

You should now be able to use this model to work from the additional 12 waves. After installing the 12th wave you can then play the entire set starting from C2 and you'll have the added "Hidden ROM" waves in the kit as

well. You will end up with 48 total waves out of a possible 53! (Remember our snare drum occupies 6 keys. If we had placed the snare on only 1 key there would be 5 more hidden GM waves.) ■

Bio: Al Blake is a Tech Support person and KT school instructor at Ensoniq Corp. He and his wife are a keyboard and vocal duo that perform up and down the Mid-Atlantic region.

Using The Ensoniq Presets

Part I

Frank Fortunato

Most people I meet who compare Ensoniq keyboards to other well-known synths would agree that the Ensoniq workstations, especially in the VFX/SD-1 and TS families have the most user friendly sequencers of all keyboards. Another outstanding and sometimes overlooked feature of these keyboards is the preset feature and its ease of use — especially in live performance.

While I will address mostly the TS keyboards, almost all material can also apply to the VFX and SD-1 keyboards as well. It should always be remembered that the same settings that are used for presets in live playing will also apply for the sequencing/recording environment as well. Similar to the first article that I did in January, 1995 these reminders are especially aimed at those who are new to the keyboard. It would be helpful to review the January article as these ideas build on that.

1. QUICK SETUP: In comparison to many other workstation keyboards, one of the outstanding preset feature that sets Ensoniq synths apart is the quickness with which they can be set up and stored. To be sure there are other keyboards that have features that allow for quick and easy handling of certain features. For instance various keyboards have on board sliders that can act as mixers which allow for real time volume and parameter changes while playing. Compared to the Ensoniq TS and SD presets, few other keyboards out there at present allow so many variations of sound and performance, from volume, splits, layers, etc. to be so quickly made, quickly stored, and quickly accessed when playing live.

In that regard, the VFX and SD-1 axes are even faster than

the TS Series in many ways since they dealt with fewer parameters and storage options. But no one upgrading to the TS would complain since the preset storage on the TS tripled from 40 (SD with cartridge) preset locations to 120 in the TS.

For those interested, among other additions to the TS parameters not found on the SD-1 are:

- a) An attack page that is added to the release soft button.
- b) More options for velocity on the key zone pages.
- c) The addition of the detune page.
- d) Many more controller settings.
- e) The track and MIDI pages have been expanded. One of the best editions is the bank select feature.
- f) One of the greatest changes on the TS reflect the enormously expanded effects parameters.

Let's visit some of these preset pages and see some of the ease of use and delightful ways that they can aid performance. While my context is in my work as a church musician these features will be applicable to all kinds of music situations.

A. THREE INSTANT SOUNDS. Most Ensoniq users realize that every time they select a sound it is also selected as part of a preset in the preset buffer. If you only needed three sounds for a given occasion that were not al-

ready stored as a preset, you could select them and find them all in the preset buffer ready for use in performance. No need to go chasing back and forth in different sound banks.

B. SEAMLESS SOUND CHANGES: Another advantage to putting three voices instantly into the preset mode is that they all retain the same effect and therefore switching between them avoids the hiccups that happen when sounds with different effects are selected in sounds mode. This is especially helpful when the church musician needs to keep a carpet of sound during a quiet part of the meeting, and needs to go seamlessly from one sound to another. Remember that some voices may lose their character from taking on the common effect. (In my earlier article I mentioned ways to deal with this.) When we find a sound with a special effect that we want to use, but find other voices not working well with that effect, (like a piano sound for instance) we can send that sound through the "dry" routing in the effect.

C. RICH SOUNDING LAYERS: In church work musicians need a variety of electric or acoustic piano settings with strings added to accompany various kinds of congregational singing, especially contemporary worship songs. We can take advantage of the TS that has so much preset storage and store several variations of piano-string layers with different volumes, release and attack settings, etc. Here is the general procedure that I use:

Volume: The first thing I do is get the basic volume (mix) adjustments between the keyboard and string sound.

Attack and Release: Next I adjust the attack and release. The TS provides adjustment of both with the same preset button. (On the SD the attack adjustment is done in the voice programming section.)

I have layers that I can use for FASTER passages which would probably have a quicker attack and a shorter release, as well as layers for SLOWER songs which would have slower attacks and longer releases.

D. OCTAVES (KEY ZONE): I have personally found with strings that it is best to review the lower octaves. Almost all of the settings will start to "growl" in the extreme lower ranges of the 76 note TS-12.

With bass guitar patches I find it helpful to set the low note to a C-2 to simulate a five-string bass guitar, or the higher E to emulate four-string bass parts. I often transpose the bass up an octave which allows for the bottom note on the TS-12 to sound as the regulation E-2 note.

This is particularly helpful when I want to split the keyboard three ways.

E. TUNING AND TRANSPOSING: When tuning strings with acoustic or electric pianos I find it best for my taste to tune them to the same octave. (This is accessed on the tuning button of the TS and transpose button on the SD.) For other sounds where I layer pads with keyboards and where I want to have much bigger sounds I experiment with the pads in higher octaves. I have also found when adding a percussive element to electric pianos and organs it is effective to tune the percussive sounds in higher octave ranges. For instance if I want to add a "ping" bell-like percussive sound to an electric piano it will most often sound more brilliant to have that bell sound in a higher octave setting.

F. BRING VOICES IN WITH VELOCITY: With the velocity page I can set up presets that layer brass and keyboards to come in at different velocities. In a piano and brass preset I can set the brass velocity to come in around 80 or 90. This allows me to play softly without brass but to have brass stabs when I play harder.

The only drawback is that it takes more control of my playing so that the brass don't pop in when I don't want them. A variation of this is to use the double pedal (Ensoniq model SW1) set to select patches, which gives me safer and easier control.

To do that I will take a brass or string sound and program it to have all of the voices muted out in its "normal" or "live" setting, and have the voice only sound with left or right patch select settings. I then set up a preset with that sound included. Of course it only sounds when I access it with the pedal that is imitating the patch selection. This allows me to play as hard or as soft as I care to, and the layered sound will come in only with the pedal.

I trust this gets you back into using some of these neat preset features. Next time we will dive into controllers, performance options, pressure, volume pedal, MIDI options, and the awesome effects pages.

I would be interested in any feedback or ideas to start a possible users group for the SD1 or the TS. I can be reached at Operation Mobilization, tel. 770-631-0432, fax: 770-631-0439, email: Internet: fort@omusa.om.org. ■

Bio: Frank has been a college music theory teacher, and has spent 15 years directing music on two ocean liner ships. He is currently music director for Operation Mobilization.

TS Rolling Grand

Garry Wasyliw

Have you listened to a vinyl record lately? After several years of CD listening I recently got out my turntable and put one on. With today's ears, I was really surprised at the amount of background noise and lack of high end that I used to accept. There is a real similarity between this and electronic piano sounds. I can remember going down to my local music store when the Roland JX-3P analog synth had just been released. A new piano patch had just been loaded in and everyone was amazed by what they heard. Today very few people would accept that sound as an acoustic emulation.

The point is that every time we have an incremental advancement in synthesis technology the piano sound becomes totally realistic; that is, until we become accustomed to its shortcomings and want more. Even though a piano is most appropriately controlled from a keyboard, the sound it produces is deceptively complex. Multiple strings beat and flange against each other in a nonrepetitive way with timbral changes from note to note.

The attempt to replicate piano sounds in the more recent generation of electronic instruments has been to add increasingly larger samples taken over smaller ranges, but unless very large memories are used, the sustain must still be looped resulting in a static sound. Another shortcoming of the sampling process is that sounds must be transposed up and down to fill in notes between the points actually sampled. This can alter the sound in a negative way.

Waveforms found in synthesizers, however do not exhibit many of these same problems as they are more simple mathematical descriptions of wave shapes. This allows them to sound more consistent along the keyboard. The drawback here is that the timbre is very static and that is the reason the old analog synth described above didn't hold anyone's interest for long.

In light of the above, the piano patches in the TS are very good, mainly due to the large sampled GND-PIANO wave, but I believe that a little programming effort can introduce even more realism. The approach that I have used in the "Rolling Grand" patch is to use a sample for its attack and harmonic content, smoothed by layering with a waveform and introducing subtle harmonic motion

through the synthesis parameters. I was after a sound of harmonics "swimming" in a warm body resonance with varying timbral response to dynamics. The tone is darker and rounder than seems to be currently popular in a multi-instrumental mix. You will notice a difference when sustaining chords or playing closely spaced intervals.

The chart begins with Wave 1, "GND-PIANO." This voice has been filtered at both the high and low frequencies for low velocities. Harder playing increases the brightness and also adds more bottom. The upper harmonics are varied by modulating the LP filter with the LFO that has its rate varied with noise.

The second voice adds a thud to the attack. The parameters are fairly straightforward.

The next wave is the selection from the WAVEFORM class; in this case a bell. It is LP filtered to be the low part of the sound and add the effect of a piano body resonance. In this case the pitch is subtly varied by the LFO to mimic the flanging of multiple strings.

The patch select variations are provided to enable you to hear a variation with another waveform (0*), and then the same two versions without the thump (*0 and **). There is lots of room to experiment with substituting other waves for the WAVEFORM.

If you monitor this patch through stereo speakers, you will hear the notes pan across like the real thing. If you want it to be mono, be sure to go to the second output page of each voice and set the MODAMT to zero.

The effects have been applied fairly lightly using a little EQ and a short reverb. Experimenting with the EQ setting will yield many variations. The patch can also sound quite good dry if you need to use the effects for other instruments in a mix. ■

Bio: Garry lives in a quiet little town in Canada. His next door neighbour is a well known singer who is commonly believed to have been deceased since 1977.

TS-10 Hackerpatch

TS-10 Prog: ROLLING GRAND

By: Garry Wasyliw

WAVES	1	2	3	4	5	6
Wave	GndPiano	PnoThud	BelWave	PadWave6		
Wave Class	Keyboard	Keyboard	Waveform	Waveform		
Delay	-	-	0003	0003		
Shift/Index	-	-	+18	00		
Dirac/Modsrc						
Modamt						
Sample Start						
Start Modsrc						
Modamt						

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

PITCH	1	2	3	4	5	6
Octave	0	+1	0	0		
Semitone	00	00	00	00		
Fine	00	-50	-01	-01		
Glide mode	-	-	-	-		
Glide time	-	-	-	-		

PITCH MODS	1	2	3	4	5	6
Modsrc	Off	Keybd	Off	Off		
Modamt	-	+60	-	-		
Bend	-	-	-	-		
PitchTbl	Syst	Syst	Syst	Syst		
Env1	00	00	00	00		
LFO	00	00	+06	+06		

FILTER 1	1	2	3	4	5	6
Mode	LP/3	LP/2	LP/2	LP/2		
Cutoff	045	044	055	075		
Kbd	+20	00	00	00		
Modsrc	LFO	Veloc	Off	Off		
Modamt	+40	+19	00	00		
Env2	+60	00	+15	00		

FILTER 2	1	2	3	4	5	6
Mode	HP/1	LP/2	LP/2	LP/2		
Cutoff	055	060	070	080		
Kbd	+25	00	+12	+12		
Modsrc	Veloc	Veloc	Off	Off		
Modamt	-40	+25	00	00		
Env2	+10	00	+15	+39		

OUTPUT	1	2	3	4	5	6
Kbd Scale	+05	-15	+05	+05		
Lo/Hi Key	-	C4-C6	E4-C8	E4-C8		
Vol (db)	+05	-05	00	00		
Modsrc	Off	Off	Off	Off		
Modamt	-	-	-	-		
Dest Bus	FX1	Dry	FX1	FX1		
Pan	00	00	00	00		
Modsrc	Keybrd	Keybrd	Keybrd	Keybrd		
Modamt	+45	+40	+30	+30		
Voice Prior	-	-	-	-		
Vel-Window	-	-	-	-		
Lo	-	-	-	-		
Hi	-	-	-	-		

LFO	1	2	3	4	5	6
Rate	10	-	05	08		
Modsrc	Noise	-	Noise	Noise		
Modamt	+05	-	+05	+05		
Depth	05	-	10	10		
Modsrc	Off	-	Off	Off		
Modamt	-	-	-	-		
Waveshape	Sine/Tri	-	Sine	Sine		
Restr Mode	On	-	Off	Off		
Phase	000	-	000	000		
Delay	25	-	20	30		
Noise Rate	10	-	10	10		

SELECT VOICE

00	1	2	3	
0*	1	2		4
*0	1		3	
**	1			4

ENV1	1	2	3	4	5	6
Attack	-	-	-	-		
Decay	-	-	-	-		
Decay 2	-	-	-	-		
Decay 3	-	-	-	-		
Release	-	-	-	-		
Peak	-	-	-	-		
Break 1	-	-	-	-		
Break 2	-	-	-	-		
Sustain	-	-	-	-		
Vel-Level	-	-	-	-		
Mode	-	-	-	-		
Vel Curve	-	-	-	-		
Kbd Track	-	-	-	-		
Vel-Attack	-	-	-	-		
Vel-Reis	-	-	-	-		

ENV2	1	2	3	4	5	6
Attack	00	00	00	00		
Decay	30	23	48	48		
Decay 2	40	32	73	73		
Decay 3	68	50	86	86		
Release	51	26	44	44		
Peak	99	99	99	99		
Break 1	90	70	73	73		
Break 2	70	50	56	56		
Sustain	36	00	00	00		
Vel-Level	40	42	46	46		
Mode	Normal	Normal	Normal	Normal		
Vel Curve	Cncv2	Cncv2	Cncv1	Cncv1		
Kbd Track	-13	00	+29	+29		
Vel-Attack	00	00	00	00		
Vel-Reis	00	00	00	00		

ENV3	1	2	3	4	5	6
Attack	00	00	00	00		
Decay	30	40	30	30		
Decay 2	50	50	45	45		
Decay 3	75	50	70	70		
Release	40	40	40	40		
Peak	99	99	99	99		
Break 1	90	50	85	85		
Break 2	75	00	75	75		
Sustain	00	00	00	00		
Vel-Level	45	30	40	40		
Mode	Normal	Normal	Normal	Normal		
Vel Curve	Linear	Cncv1	Cncv1	Cncv1		
Kbd Track	+10	+10	+30	+30		
Vel-Attack	00	00	00	00		
Vel-Reis	00	00	00	00		

PGM CONTROL (Page 1)

Type	AcPianos
Option	None
Press	Off
Patch	Live
Restrike	20

PGM CONTROL (Pages 2 & 3)

Atck	00	V1	00
Reis	00	V2	00
Bright	00	V3	00
Timbre	00	V4	00
Rate	00	V5	00
XCtrl	00	V6	00

EFFECTS

Effect #23	Parametric EQ
	+ Plate
FX1 EQ	99
EQ-Reverb	30
FX2 Reverb	25
FX2 Dry	50
Input	99
Output	99
Mid Fc	03037
BW	00923
Level	-05
Bass Fc	00100
Level	+02
Treble Fc	04699
Level	+04
Decay Time	1.50
Pre-Dly Time	0043
HF Damping	22
Bandwidth	50
Detune Rate	26
Depth	40
Definition	43
Diffusion	88 35



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HACKER BASEMENT TAPES

Daniel Mandel

And Now Here's Something Really Different...

Tape: The Joy of Ivories/Electronic Backup.

Artist: Bruce Maccabee.

Contact info: 6962 Eyler Valley Flint Rd., Sabillasville, MD 21780.

Equipment: Mirage, ESQ1 and SQ-2.

Over the years (yes it's been a couple!) I have received rock, rap, jazz, boogie woogie, ambient music, thrash-country-progressive, you name it. But until now I had not received any opera. Well stand back. Bruce has cooked up a compilation of some very beautiful standard rock, classical and operatic pieces. Some original, some not.

Most of these pieces come off as very raw, not especially well recorded instrumentals. They are awkward at best. What amazed me is the two songs buried in the middle

that were *quite* well done. I think it points to the maxim that simpler is better. These two songs were simple background accompaniment with a beautiful vocal, by Christine Maccabee, recorded live.

While Bruce managed to really hit the spot with Christine singing his own voice on *Junk Mail Blues* comes off rather like an out-take from *Dr. Demento*.

The low points in this tape are the tempo changes/adjustments that don't quite jive.

This is a real mixed bag. Some quality stuff. Christine's voice is a real high point. However, there is just enough, "Gee, listen to what I can do with my synth!" to make this almost unlistenable. Bruce appears to be a capable player,

and I would suggest revisiting what made those pieces with Christine sound so good. ■

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



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

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Sonic Derivations: The Church Bell

A patch for the VFX-SD series.

Jim Grote

This patch was created to satisfy my fascination for the evocative, eternally recognizable sound of the church bell. I have always been interested in the complex yet somber tone of the bell. Thus I was inspired to create this sound on the VFX.

A Short History of the Bell

As a first step in any patch creation, I first try to learn as much as I can about the physics and character behind the original sound I want to reproduce. Structure-wise, the church bell that I had in mind, is the familiar hollow curved shape that traces its roots back to ancient China. Before the 10th century bc, the Chinese began creating large, barrel-shaped brass bells, decorated with ornate designs on their outer surfaces. The Romans created a wide variety of small bells and such, but it wasn't until the Middle Ages that larger bells become prominent in western civilization. There, they were used for religious rituals and occasions, and hence became associated with churches and cathedrals.

The Sound of the Bell

A good bell, when properly struck, should give out two distinctive tones — the strike note or key of the bell, and the hum or sustaining note. The hum note should be a major sixth below the strike note. The strike note is actually a complex array of non-harmonic tones, characteristic of a metallic surface being struck. The sustaining sound is also a series of complex harmonics. Because of the curved shape of the bell, a significant secondary note of the sustain is a minor third. This is precisely what gives the bell its haunting, somber tone. It is a subtle but important aspect of the sound.

Creating the Strike Tone

To create the patch I started off with the TUBULAR-L waveform, which is a relatively simple sound like a

tubular bell being struck. This is the primary sustain note. I used two TUBULAR-L waves, using the second wave to emphasize the strike. The sustain of this sound was pretty good, but it still sounded too much like tubular bells, which have a cleaner sound. Church bells create a deeper, more complex and interesting attack.

So I began to concentrate on the strike sound using other enharmonic waveforms. The best was the ANVIL-HIT which helped expand it beyond just the tubular chime sound. Finally, I settled on adding a third TUBULAR-L wave an octave up, to brighten the attack a tiny bit more.

Creating the Sustain

Now the strike tone sounded pretty good, but the sustain was a bit too sterile. To create the minor third of the sustain, I tried adding another TUBULAR-L wave, but this didn't work at all. The minor third doesn't really become apparent until the strike tone dies and this wave was too bright. Keep in mind that even this minor third is an approximate range of frequencies, not an exact and pure overtone. Therefore, after experimenting quite a bit, I settled on the SPECTRL-X wave, tuned up a minor third. Its effect is subtle, but noticeable if you compare with or without the minor third wave.

I was now really close to what I had in mind, but the sound just wasn't deep enough. To round out the tone, I added a subtle ANVIL-LP wave an octave lower. Finally, I added a touch of slow modulation to each wave, to animate the sustained sound, and added a long decaying CONCERT REVERB to enrich the sustain.

Performance Tips

The second and third octaves generate the best church bell tolling sound. Higher up on the keyboard, this patch sounds more like carillon bells, which are used more for playing actual melodies. Also, I programmed the Mod

wheel to pan the sound all the way left, as a quick and easy way to move the sound off center. I hope you enjoy this sound. A soft and distant bell tolling creates a great haunting mood and dark ambiance. Enjoy. ■

Bio: Jim Grote has been programming and playing synthesizers for years. He is fascinated equally by both science and art, words and pictures, sound and music.

SD & VFX Prog: CHURCHBELLS

By: James Grote

WAVES	1	2	3	4	5	6
Wave	Tubular-L	Anvil-LP	Tubular-L	Anvil-Hit	Tubular-L	Spectri-X
Wave Class	Inhrmonic	Inhrmonic	Inhrmonic	Perc	Inhrmonic	Transwave
Delay	0	0	4	0	6	0
Start	-	-	-	0	-	0

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

PITCH	1	2	3	4	5	6
Octave	0	-2	0	-1	+1	0
Semitone	0	0	0	0	0	+3
Fine	+1	+1	+4	-24	-1	-1
Pitch Table	System	System	System	System	System	System

PITCH MODS	1	2	3	4	5	6
MODSRC	Veloc	Veloc	Veloc	-	Veloc	Veloc
MODAMT	+1	+1	+1	0	+1	+1
Glide	0	0	0	0	0	0
ENV1	0	0	+1	0	0	0
LFO1	+2	+2	+1	0	+2	+2

FILTER 1	1	2	3	4	5	6
Mode	LP/3	LP/3	LP/3	LP/3	LP/3	LP/3
Cutoff	94	127	83	83	93	94
KBD	-7	-2	-1	+25	-7	-7
MODSRC	LFO	-	LFO	-	-	-
MODAMT	+13	0	+15	0	0	0
ENV2	+69	0	+33	+32	+70	+70

FILTER 2	1	2	3	4	5	6
Mode	HP/1	HP/1	HP/1	HP/1	HP/1	HP/1
Cutoff	0	0	0	17	0	0
KBD	0	0	0	+27	0	0
MODSRC	-	-	-	-	-	-
MODAMT	0	0	0	0	0	0
ENV2	0	0	0	0	0	0

OUTPUT	1	2	3	4	5	6
VOL	98	66	99	99	70	82
MODSRC	-	-	-	-	-	-
MODAMT	0	0	0	0	0	0
KBD Scale	0	-96	0	0	-96	-98
LO/HI Key	A0-B7	F3-G5	A0-B7	A0-B7	A3-C7	G3-C6
Dest Bus	FX1	FX1	FX1	FX1	FX1	FX2
Pan	50	50	50	54	50	50
MODSRC	Wheel	Wheel	Wheel	Wheel	Wheel	Wheel
MODAMT	-98	-99	-99	-99	-99	-99
Pre-Gain	Off	On	Off	Off	Off	Off
Voice Prior	Med	Med	Lo	Med	Lo	Med
Vel Thresh	0	0	0	0	0	0

LFO	1	2	3	4	5	6
Rate	19	24	11	35	22	21
MODSRC	-	-	-	-	-	-
MODAMT	0	0	0	0	0	0
Level	8	11	15	0	11	13
MODSRC	-	-	-	-	-	-
Delay	0	0	51	0	0	0
Waveshape	Sine	Sine	Sine	Tri	Pos/Sine	Sine
Restart	On	On	On	Off	On	On
Noise SRC RT	0	0	0	0	0	0

SELECT VOICE

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

ENV1	1	2	3	4	5	6
Initial	-	-	54	-	-	-
Peak	-	-	1	-	-	-
Break 1	-	-	44	-	-	-
Break 2	-	-	28	-	-	-
Sustain	-	-	1	-	-	-
Attack	-	-	48	-	-	-
Decay 1	-	-	47	-	-	-
Decay 2	-	-	41	-	-	-
Decay 3	-	-	41	-	-	-
Release	-	-	33*	-	-	-
KBD Track	-	-	0	-	-	-
Vel Curve	-	-	Cncv3	-	-	-
Mode	-	-	Finish	-	-	-
Vel-Level	-	-	50	-	-	-
Vel-Attack	-	-	69	-	-	-

ENV2	1	2	3	4	5	6
Initial	98	-	49	99	98	98
Peak	34	-	99	81	34	34
Break 1	25	-	49	29	25	25
Break 2	0	-	0	0	0	0
Sustain	0	-	0	0	0	0
Attack	0	-	0	9	0	0
Decay 1	7	-	49	14	7	7
Decay 2	7	-	74	35	7	15
Decay 3	15	-	0	0	15	15
Release	29	-	73	32	29	29
KBD Track	-8	-	-10	0	-8	-8
Vel Curve	QkRise	-	QkRise	Linear	QkRise	QkRise
Mode	Norm	-	Finish	Norm	Norm	Norm
Vel-Level	7	-	99	99	7	7
Vel-Attack	2	-	99	0	1	1

ENV3	1	2	3	4	5	6
Initial	98	99	99	89	98	98
Peak	98	76	99	87	98	98
Break 1	91	75	49	72	91	91
Break 2	43	18	0	62	43	43
Sustain	0	0	0	0	0	0
Attack	0	20	0	0	0	0
Decay 1	39	42	31	11	39	43
Decay 2	61	56	32	19	61	61
Decay 3	13	26	0	17	13	20
Release	62	47	65	38	62	70
KBD Track	+4	+5	+4	0	+4	+4
Vel Curve	Cnvx1	Cnvx1	Cnvx1	Cnvx1	Cnvx1	Cnvx1
Mode	Norm	Finish	Norm	Norm	Norm	Norm
Vel-Level	21	20	19	38	21	21
Vel-Attack	9	10	9	48	9	9

PGM CONTROL

Pitch Table	Off
Bend Range	12
Delay	X4
Restrike	22
Glide Time	0

EFFECTS (1)

Effect	Concert Reverb
Decay	67
FX1	62
FX2	31

EFFECTS (2)

Diffusion	99
PreDelay	51
Early Ref	10
Time	30

EFFECTS (3)

FX-2 Mode	Normal Stereo
LF Delay	0
Rvb HF Damp	12

PERFORMANCE

Timbre	0
Release	0

Prog: Relax Pad

By: Jack Carder, Springfield, VT

WAVE	1	2	3
Select Voice	On	On	Off
Wave Class	Waveform	Breath	
Wave	SynthBell	VocalEns	
Delay Time	000	000	
Wave Direction	-	Forward	
Start Index	-	00	
MODSRC	-	LFO	
MODAMT	-	00	
Restrk Decay	57	57	

PITCH	1	2	3
Octave	0	0	
Semitone	00	00	
Fine	-06	+06	
ENV1	00	-01	
LFO	+01	+04	
MODSRC	Off	Off	
MODAMT	-	-	
KBD Pch Track	On	On	
Glide	Off	Off	
Glide Time	00	00	

ENV1	1	2	3
Initial	17	00	
Peak	00	00	
Break	00	00	
Sustain	00	00	
Attack	22	00	
Decay 1	00	00	
Decay 2	00	00	
Release	00	00	
Vel-Level	00	00	
Vel-Attack	00	00	
Vel Curve	Convex	Convex	
Mode	Norm	Norm	
KBD Track	00	00	

LFO	1	2	3
LFO Speed	31	31	
Noise Rate	86	86	
Level	00	00	
Delay	26	26	
MODSRC	Wheel	Off	
Wave	Sine/Tri	Sine/Tri	
Restart	On	On	

FILTER	1	2	3
Filter 1	2Lo	2Lo	
Filter 2	2Lo	2Lo	
FC1 Cutoff	127	127	
ENV 2	00	00	
FC1 KBD	00	00	
MODSRC	Off	Off	
MODAMT	00	00	
FC2 Cutoff	079	127	
ENV2	00	00	
FC2 KBD	00	00	
FC1MOD-FC2	On	On	

ENV2	1	2	3
Initial	00	00	
Peak	00	00	
Break	00	00	
Sustain	00	00	
Attack	00	00	
Decay 1	00	00	
Decay 2	00	00	
Release	00	00	
Vel-Level	00	00	
Vel-Attack	00	00	
Vel Curve	Convex	Convex	
Mode	Norm	Norm	
KBD Track	00	00	

AMP	1	2	3
Initial	88	88	
Peak	95	95	
Break	99	99	
Sustain	99	99	
Attack	20	20	
Decay 1	30	30	
Decay 2	20	20	
Release	60	60	
Vel-Level	00	00	
Vel-Attack	00	00	
Vel Curve	Convex	Convex	
Mode	Norm	Norm	
KBD Track	00	00	

OUTPUT	1	2	3
VOL	73	66	
Boost	Off	Off	
MODSRC	Off	Off	
MODAMT	-	-	
KBD Scale	00	00	
Key Range	C2-C7	C2-C7	
Output Bus	FX1	FX1	
Priority	Med	Med	
Pan	+98	-98	
Vel window	000	000	

EFFECTS — 8-VOICE CHORUS

FX-1	67
FX-2	50
Chorus Rate	13
Chorus Depth	31
Chorus Center	76
Feedback	+22
MOD (Dest)	FX1-Mix
BY (MODSRC)	Pedal
MODAMT	+64

The Hack: Jack's Back. He's got another pad to feed the hungry synth. Jack says that "Relax Pad" is one of his earlier efforts. Well then, we like his early stuff. "Relax Pad" has a simple back to basics approach: the envelopes are open and straightforward as are the filter values. A little fine tuning here and there should be enough. (After all, this is what we do here.) In the Pitch Section for Voices 1 and 2 change the FINE values to -04 and +00 respectively to lighten the detuning some. In addition, for Voice 2, tone down the LFO parameter to +01. Stay in the Pitch Section again: turn on the MODSRC to LFO and let its MODAMT = +10. We're starting to inject a faint sing-song effect into Voice 2.

For Voice 2, change the Vel Curve to LINEAR for both envelopes 1 and 2 to smooth out the melody. (Listen hard!) In the LFO Section for both voices, LFO Speed should equal 20. The LFO should be present regardless of the ModWheel setting. Voice 1's Level is now = 15 and Voice 2's = 20. Also for Voice 2, the Restart value should be changed to OFF.

Finally, balance the two voices. At the Output, reduce Voice 1's Vol to 55.

As for the program's Effect, it just needs to be a tad more dramatic. For the 8 Voice Chorus, change both the Chorus Rate & Center to +50. Then increase Feedback to +60.

Jeffrey Rhoads



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

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

One of our most common requests from new subscribers (new owners) is for more basic tutorial information. We've all been there. Unfortunately, the *Hacker* is usually "there" when a new instrument first makes its appearance — and then we move on. While back issues can answer many questions, not all are still available and they do represent an additional expense for the new reader. Hence, "*Hacker Reinitialization*" — yup, old goods in a new wrapper. We feel a little funny about the whole reprint thing — so we're going to keep it small. Clark's series on the SQs is the most requested, least available, and the most generally applicable (KSs & KT's in particular — and he's checking 'em for freshness), so here we go...

SQ Modulation —

The Story Continues...

Clark Salisbury

Editors can be so brutal. Take last month's column, for example.

We were right in the middle of working out an envelope for a piano-type of sound. We'd gotten all the basic settings together and we'd even discussed keyboard tracking. I had made you my most excellent promise that we'd talk about the Mode parameter and the next thing you know YOWWW! GRARR! ARGHGH! Column over, signing off now, g'night folks, write when you find work, a kiss is but a kiss — in short, I got edited! And I coulda been a contender. [Ed. — *Clark, you'd already run on for over two and a half pages. Somebody had to stop you.*]

Oh well, happens to the best of us, I suppose. And there is some small solace in that this current rant still counts toward my total word count for this month's article and since I'm paid by the word I suppose there is some justice after all.

But I suppose I've milked this one out enough. What this means to you, though, is that the following article was meant to be part of last month's article. Since I'm planning on just picking up right where we left off, you may want to review last month's column before you continue on here. Then again, you may not. I get paid either way, so no skin off my proboscis.

At any rate, when we last left our hero, he had just finished revealing the mystical secrets of the wily keyboard tracking parameter and was preparing to undertake an unassisted explanation of the Mode parameter. If your SQ-1 happens to still be in the same condition it was in when we were so rudely interrupted last time, the SQ-1's display should be showing something like

Mode=NORMAL
KeyboardTrk=+28

If, though, you have used your SQ-1 since last month, you

will need to fish last month's copy of *TH* out of the trash, look up my column, and repeat steps 1 through whatever to bring yourself (not to mention your SQ-1) back into sync with this month's column. Once *that's* out of the way, you should be looking at the aforementioned display, accessed (as you probably know) by hitting the Edit button, then the Amp button, and then the 2 button. All set? Good. Let's (AHem) continue.

There are three modes that an envelope can run in. So far we've been using NORMAL mode. Selecting the mode parameter and scrolling up once sets the mode to FINISH. In this mode, the envelope runs through its complete cycle whether you hold the keys down or not. It's sort of like having the sustain pedal stuck in the on position. FINISH mode is most often used with percussion sounds, where you want the sound to play all the way through whether you are holding the keys down or not. There are other applications as well, many of which are found in the special effects category.

The third mode, accessed by scrolling up one more time, is called REPEAT mode. Here, the envelope runs through from beginning to end in a cyclic fashion for as long as the key or sustain pedal is held down. This also has a lot of applications from the special effects category, but it can be pretty useful for some complex kinds of tremolo and vibrato effects, or for creating interesting filter sweeps. More about these later.

Now we're getting close to a basic piano-type of envelope. But there's still a couple of parameters we should check out.

Press the 1 button, and you'll find yourself at another page of envelope modulators — specifically, modulators that deal with velocity. The first modulator in the display is the LevV modulator (which I like to think of as the "envelope level

eTH — A Faster, Cheaper Hacker

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controlled by velocity modulator"). It is here that you can adjust an envelope's sensitivity to key velocity (higher values will make the envelope more sensitive). Since we're dealing with the amplifier envelope here, adjustments made to this parameter will change how velocity affects the loudness of the sound. You may want to experiment a bit with the different velocity curves available. These are accessed through the VelCurv parameter located at the bottom of the page, and allow you to tailor the velocity curve of the current voice. Perhaps the easiest way to get a feel for what the different curves do is to set the LevV parameter to a fairly high value, perhaps in the range of 53-72, then try each of the curves while playing the keyboard at different velocities. For our piano patch, I've settled on a LevV amount of 26, and a CONVEX velocity curve, but I have a fairly light touch. You may well find that some other combination of settings is more to your liking.

The final parameter on this page is the AtckV parameter (attack time controlled by velocity). This has the effect of shortening Time 1 of the envelope when playing at higher velocities. The classic example of how to use this parameter is the string patch, in which notes played softly take a while to build up, and notes played harder attack more quickly. To try this parameter out, go to the first page of this envelope (hit the 0 button) and set Level 1 to 00 and Time 1 to some value greater than 00. (Since velocity can only be used to shorten the attack time of the envelope, using a Time 1 setting of 00 gives us no where to go — the attack time is already as short as it can get.) For now, try a value of 50 for Time 1. This should give you an interesting "bowed piano" effect; the piano sound swells to full volume rather than attacking percussively.

Head back to the velocity control page (hit button 1), and set AtckV to a relatively high number — say, 66. Now when you play softly on the keyboard, you get the bowed piano effect, but as you play harder the sound becomes more percussive.

Back Issues

Back issues are \$2.00 each. More than 10: \$1.75 each, more than 21: \$1.50 each. (Overseas: \$3 each.) E-mail copies of back issues are available for all issues since #118: \$1 each (anywhere). Orders for e-mail issues should be sent to: issues@transoniq.com.

Issues 1–40, 61, 67–74, 77, 79 and 82–85 are no longer available. Permission has been given to photocopy issues that we no longer have — check the classifieds for people offering them. A free back issue index is available which contains the tables of content for all issues since #43.

ESQ-1 coverage started with Issue #13. SQ-80 coverage started with #29, (although most ESQ-1 coverage also applies to the SQ-80). EPS coverage got going with #35 (and also applies to the ASR-10). VFX coverage (which also applies to the SDs) got started in #48. The SQs got going in #63. (SQ articles also apply to the KS-32 & KT-76/88.) DP/4 coverage started in #88 (much of which also applies to the ASR-10, and most of which also applies to the DP/2). TS-10/12 coverage got going with #98 but owners should also check out sample reviews (EPS/ASR) and SD & VFX programming tips.

The envelope we've been working with has been used to control volume, but envelopes can be used to control other things, too: Pitch, tone, effects, even other modulators (such as the LFO). We'll be working with these and other applications presently.

For now though, there's one more thing to cover, and it's one of the coolest features of the SQ-1 envelopes: There are preset envelopes built into the SQ-1. This means you don't necessarily have to go through all the aforementioned machinations every time you need to set up an envelope. Simply load one of the preset envelopes. Many of these will be fine just as they are, but if not, all that's usually needed is a minor tweak or two, and bingo. Here's how it works:

>From any of the envelope pages (in this case we'll continue working with the amp envelope) press the 3 button. The display will read, "Press ENTER to select defaults." Press enter. You can now scroll through the listing of default envelopes stored in ROM. To instantly produce a piano envelope, for example, scroll until you see PIANO DECAY and hit Enter. To try out other envelopes, hit the Enter button, select the envelope you want to check out, and hit Enter again. You may repeat this process as many times as you want.

Of course, not all envelopes work in all instances. Using the ALL ZEROS default with the amplifier envelope results in no sound, for example. If you find any particular envelope interesting, you can scroll through the rest of the envelope menu pages to see what parameters went into creating it. Hey — you might pick up a trick or two.

Also, be aware that loading one of the default envelopes replaces whatever the current envelope is. So if you've been working for three hours perfecting the envelope for that perfect bazouki patch, save your work before loading any of the default envelopes.

Anyway, if you are reading these words, it's a good bet that this article made it into the current issue in a more-or-less complete form and you may now safely use the last two issues of the *Hacker* to wrap fish. On the other hand, we'll be doing a bit more with envelopes next time, so you may want to hang onto these issues for future reference. Besides, you never know when a crazed editor with a big pair of scissors is going to —

Bio: Clark has been involved with electronic music since 1980.



The Interface

Letters for The Interface may be sent to any of the following addresses:

U.S. Mail - The Interface, Transoniq Hacker, 1402 SW Upland Dr., Portland, OR 97221

Electronic mail - GENie Network: TRANSONIQ, Internet: interface@transoniq.com.

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

To: interface@transoniq.com

I have the Ensoniq Soundscape Card on my home pc. I have static during .wav file playback in Windows. Can you help me????

Steven J. Pyne
Via Internet

[Ensoniq - You are really going to need to call our Customer Service department, at 610-647-3930. You offer so little information that we can't begin to trouble-shoot your system to get at this problem. To effectively help you we need to know about your system (what computer, what additional cards are installed, which version of Windows), and whether this is happening during recording and playback, only on playback, only on certain files, etc.]

Rest assured, we will find out what the problem is, but we need some "interactive" dialog with you.]

To: interface@transoniq.com

I need some help! I have a lot of your back issues, but I don't have any for the recent years. I only have a few with info on the ASR-10. I'm having problems with the software, especially on the rhythm tracks. I'm losing accuracy on the beat for no apparent reason. Also, I'm getting some obnoxious error messages that I don't understand.

I think that it's a software problem; it reeks of software. My big brother has an EPS and the OS system which was really bad until the update. Do you have any idea how to get a listing of error messages and their meanings? I'm stuck!! Please help!

Thanks again!
J Brandon
Via Internet

[CS - I'm afraid I'd need more information to hazard any kind of guess (and my guesses are among the top most hazardous available) as to what your problem might be. Best I can suggest is to first make sure you're using the most current OS, and you don't have any goofy MIDI hookups that might be hosing your clock signal, then call Ensoniq Customer Service (610-647-3930), or visit their online helpline (<http://www.ensoniq.com/>). I've always had reliable performance, timing and otherwise, from my ASR, and I use the sequencer a lot, so my hunch is that something's broken.]

As far as Ensoniq error codes go, they mean nothing to the mortal man. They are intended only to help an Ensoniq engineer track down software problems. As such, they give no specifics as to what's going on inside your machine. Rather, they are used to track down the general area in which a problem has occurred. So, even if you could look up an error message and find that it means, say, the effects chip tried to execute an illegal instruction, that knowledge would do you little good. That is, not unless you're capable of de-bugging and re-writing the offending portion of Ensoniq-proprietary code.]

[Ensoniq - Since it sounds so much like software we really need to know what software version you are using. The current version is 3.53. Call us.]

Dear TH:

I think this is a reasonable proposal for consideration on Mount Malvern. Ensoniq sequencers should be able to incorporate a multi-channel mode on one INSTRUMENT (track?) of the future Ensoniq machines. There are many very modest computer systems transmitting more than 16 MIDI channels. It seems reasonable to be able to import a multi-track recording into one INSTRU-

MENT for transmission to external modules and still be able to add other on-board music.

It's really frustrating to limit the on-board musical contribution because you want to include some discreet MIDI channels. Using just four MIDI channels on an EPS or ASR means there are only four instruments left for samples. It should be possible to record MIDI tracks on the available "hardware" positions, then "bounce" the whole wad down to a single INSTRUMENT. I can even imagine routines for step editing that would be tedious, but do-able in this scenario.

Compared to sound and effect generation, midi is really a "low function" job. It shouldn't take that much more cpu power to do what I've described. I'm still using my "more portable" 16+'s but I don't recall this feature being available on any of the newer machines. Remember, EPS stands for Ensoniq Performance sampler. Adding more gear to the studio is not my concern; being able to perform out with a small load of equipment is important to me.

Tom Jordan
Via Internet

[CS - I don't know what issues might be involved in implementing such a scheme, but this seems like a pretty cool idea to me. This may have something to do with the fact that I use an ASR-10 rack hooked up to a Syquest drive to play sequences and control external MIDI devices in live performance, in part because there are no other sequencers (particularly, rack-mountable) with SCSI ports.]

[Ensoniq - Thanks for the suggestion!]

To: transoniq.com

Just a quick note to say that even though I don't have any new toys, the occasional

articles on the EPS-16 PLUS, SD-I/32, and DP/4, that I do have, keep me current and interested. I find that by reading all the articles about the new instruments, I learn more about the ones I have. I really appreciate Clark Salisbury for his knowledge, ability, and sense of humor.

Thanks for a few good years.
Bill Forrest,
San Jose, CA

[CS - So do I. Let me hear it for me. And write again, anytime!]

Hacker,

Can you help? I have seen a couple sites on the internet that contain files for the EPS and ASR, but I have been unable to find a utility that converts them to Ensoniq floppies. Can you help? I have searched Oakland's page, but have found most of the utilities to be tailored to the EPS's double-density drive. Do you know of anything out there (shareware) that can do such a thing? Any help would be much appreciated.

Jason Huffman
Via Internet

[CS - Jason, first, surf yourself on over to the Hacker's web site, (<http://www.transoniq.com/~trnsoniq/>), go to the ftp page and grab a copy of Garth Hjelte's excellent article addressing just such arcane and mystical practices. The information weighs a bit heavier on the PC-side of things, but there's a lot of information useful to Mac users, too. In the unlikely event you don't find what you need there, please e-post me a note (care of TH), explaining what you're missing and I'll see what I can do.]

Dear Hackers:

Is it at all possible to find EPROM cartridges (or equivalent) for the ESQ anymore? I have tried finding them through local classified ads and soundware companies like Syntaur and Eye &

I, but no luck. Even Ensoniq doesn't have any.

If there is a Hacker out there willing to part with some of those apparently precious RAM cartridges, please contact me via internet (include phone number too). I am interested in the 80-patch volume type, but wouldn't mind those that have larger memory capacities.

Thanks,
Alex Darsen
adarsen@tribune.com

[CS - Consider your message duly posted. And if you haven't already done so, check out Michael Hyman's most excellent "Ensoniq Resources on the Internet" guide (<http://www.netaxs.com/~mikeh/ensoniq.html>). Perhaps you can find a link there that might steer you toward what you're looking for.]

Hi there,

I have had mega problems getting my ASR-10 to work with a hard drive I bought - 1G Fireball drive. It formatted once, seemed to be working, then the ASR and drive crashed losing all data. Attempted reformats failed every time. The ASR hung on each attempt.

I am not sure about the following things:

Is the Fireball (Fast SCSI 3) compatible with the ASR? I thought all SCSI would work with it but maybe not.

Is the OS stuffed up? I tried reformats with OS 1.6, 2.0, 3.53 and all did not work. The one successful format at the beginning was with 2.0 after two failed attempts with 3.53.

Is the ASR-10 faulty? Can you please describe to me any successful attempts you know of when using a Hdrive with the ASR, i.e. what model what OS was used, any instances of hanging and how was the problem solved?

I'd greatly appreciate your help. Having spent stacks of \$ on the ASR and on the

HD I'm pretty keen to get them to work without losing me a lot of programming work.

I recently installed two 4M SIMMS, the 8-chip variety which I have been told are the right type. I am not sure if this may be causing any problems with the hard drive.

Thanks!
Paul <SonnenSystem> Tan
Via Internet

[CS - First off, it's doubtful the memory chips are your problem. And although I'm not familiar with the Fireball drive, I'll pass along some general SCSI-type tips.

1) Ensoniq devices use a SCSI ID of 3; you can use any ID other than this for your SCSI peripherals.

2) Be sure to terminate properly. The first and last devices in a SCSI chain should be terminated. For complex systems some sort of active termination (such as the SCSI Sentry from APS) may prove helpful.

3) Use the shortest SCSI cabling possible. SCSI chains should not exceed 20 feet in length, and can become troublesome even at shorter distances.

4) Make sure your SCSI cables are functioning properly. SCSI cables seem to have an inordinately high failure rate.

5) It may seem obvious, but power up your SCSI devices before your Ensoniq instrument. The ASR will check for SCSI devices as part of its boot routine. If it finds none, it will assume none are attached. SCSI devices cannot be mounted once the ASR has been powered up.

6) Parity must be disabled on SCSI devices to communicate properly.

7) Ensoniq has tested drive mechanisms from several manufacturers. The list of approved fixed-drive mechanism manufacturers is: Fujitsu; Conner; Seagate; and Quantum.

If your drive mechanism does not appear on this list, that doesn't mean that it won't work; it may be simply that your drive has not been tested.

I have used SCSI peripherals of every description with my Ensoniq devices, with seldom a problem (at least, none that couldn't be resolved by following the guidelines listed above). And lots of our readers use hard drives, CD-ROM drives, cartridge drives, and so on with no major difficulty. So the list of what we know works with the ASR might be rather lengthy. If you've followed all the procedures listed above, the only thing I can suggest is to call Ensoniq Customer Service (610-647-3930). They should be able to get you on track.]

[Ensoniq - Clark's info is right on the money. You should definitely use the latest software (Version 3.53), but if there is still a problem call us. We might have to get your drive from you to test it out (since we are unfamiliar with it).]

Subject: TS-10 filter

Can somebody tell me if there is a modification to get a resonant filter on a TS-10 synth?

A former Arp 2600 tripper.
Toussaint Rudy
Via Internet

[CS - There are several effect algorithms available in the TS-10 which will provide a resonant filter that you can use on your TS sounds. Try these effects (and their variations) to see if one of them might provide what you're looking for:

07 ENV VCF+CHORUS+REV
14 ENV PHLANGER+REV

21 ENV VCF+ROTOSPKR+REV
66 VCF--DISTORTION--VCF
67 WAH--DISTORTION+REV

Trip on, ARPetologist.]

TH:

Where can I find Macintosh applications to store and edit EPS-16 PLUS sounds and waveforms?

Also, what is the best MIDI application for the Macintosh to interface to the EPS-16 PLUS?

Alan
Via Internet

[CS - A good start would be to follow some of the various links you can access from the Hacker's web site (<http://www.transoniq.com/~trnsoniq/>). And while you're there, check out Garth Hjelte's article "From Cyberspace to Your Ear," which provides some excellent information on software available via the Net, and how to use it.

When you ask what's the best application for use with your EPS-16 PLUS, I assume you mean the best sample editor. The application of choice among professionals (at least for the Mac), is called *Alchemy*, and it's a commercial program. It's not inexpensive, but if you're interested in doing sound design and sample-mashing, it's the program to use. For more information, contact Passport Designs (415-726-0280; <http://www.mw3.com/passport/>).

[Ensoniq - We can add that there is a new program call *Furphel*, from BIAS Software which works well with our samplers. They can be reached at

415-331-5135, or e-mailed at sberkley@crl.com.]

Sirs,

I am the proud owner of a KS-32 keyboard and am facing little problems:

1. Sometimes, when switching on, the keyboard displays the usual "00 Grand Piano," but refuses to produce any sound and the buttons do not respond. The only solution I have found is to switch it off and on again. Do you have any explanation for this? I was told that System 3.10 would fix the problem (I am currently using 3.0). Is it possible to have this new version installed, and if yes, can I do it by myself or does it have to be done by a service center? Is it an EPROM change, or can it be loaded via SYSEX or memory card?

2. I have been using new headphones for a while, which have a very good bandwidth, and I have noticed that the KS-32 produces noise in the extreme high end. Has this noise been suppressed in the new versions of the O.S.?

3. A friend of mine has bought a second-hand SQ-R, and when we try to use sounds programmed on the KS-32, the SQ-R plays them with much more vibrato than the KS-32. We have tried to load the sound by both SYSEX and by using an MC-32 RAM card, and the results are the same. (Of course, we don't use sounds with expansion waves that the SQ-R doesn't have.) Where does the vibrato come from?

There is also a sound quality difference between the two - the SQ-R seems duller than the KS-32, even when playing original SQ-R sounds. Is there a "normal" difference between the two

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products or is something wrong with the SQ-R?

Thanks in advance for your answers.

Yours,
Gregoire Marechal
Vanves, France

[CS - 1] I'm afraid I have no explanation for your problem. Fortunately, it seems like a relatively minor annoyance.

Any new OS for your KS-32 would be supplied on EEPROM chips. These should be installed by an Authorized Ensoniq technician (who should also be able to supply you with the chips in the first place). Installation should be inexpensive and painless.

2) I don't believe that changes to the OS will suppress normal operating noise. When you take your machine in to be upgraded, though, have the tech take a listen and confirm that the noise you

hear is normal.

3) The KS-32's LFO depth parameter (which is in charge of vibrato depth in both machines) was scaled back to accommodate a parameter introduced with the first pressure sensitive SQ, which was the SQ-2 (I believe). This parameter, "WHEEL+PRESS," made it possible to use both these controllers simultaneously without maxing out the depth of the parameter they were controlling too easily. It does mean, however, that sounds created for the KS-32 (and other pressure-sensitive machines in the SQ family) will often have an accentuated vibrato when played on non-pressure sensitive Sqs. The fix is change LFO amount (on the PITCH page for whichever voice(s) might be active) to about half of whatever it is set to in the offending program. This should restore the vibrato to a more manageable setting.

Your perception of a sound-quality difference between the KS-32 and SQ-R is correct. The KS (as well as more recent SQ-Series instruments) produce a crisper, brighter sound than their predecessors.]

[Ensoniq - 1] This is a known problem that has been fixed, but the OS is version 3.01, not 3.10. It can be installed at any Authorized Ensoniq Repair Station for a modest bench fee only - the chips are free.]

Transoniq Hacker:

I was deeply involved with the November issue (No. 125) when I came across a question posed by Dave Ward of New Zealand, who asked about his TS-10 interfacing with a 270 MB hard drive. Maybe I'm missing something, but I am confused by your response to his question, (along with a thousand other things...) and I just had to write and expose my sheer stupidity.

You responded to one question by stating that a CD-ROM will give you access to hundreds of sounds and all one must do is, "...plug the drive into your

TS-10." How is this accomplished, and how does a CD-ROM communicate with a TS-10 in Ensoniq format?

I also have the Giebler disk utilities, and have yet to discover their true potential (and I'm sure they have more than I give them credit for), especially in relationship to all the other gear I have. I would like to use my new PC, all my musical software (Cakewalk, etc.), the Giebler utilities, my CD-ROM, and TS-10 to sample and record sounds, create loops, patterns and sequences - all to be played and used on the TS-10. But I understand from talking to the folks at Rubber Chicken Software that about all I can do would be to use an Ensoniq CD of sampled sounds in my CD-ROM to move sounds or samples to 3-1/2" floppy disks and then to use them in my TS-10.

Those Ensoniq CDs are quite expensive, so I would love to hear that I am indeed missing something and that with the equipment I have, I could record or transpose "any" sound or sample or loop to my TS-10 with great ease. Is this even possible? If so, how? If not, what do I need? And how could my computer's CD-ROM "plug" into my TS-10?

These questions weigh heavily on my mind and I look to you for infinite wisdom and guidance, and please forgive my ignorance. I am but a novice. But thanks so much for your insight and response.

P.S. I have enjoyed *TH* tremendously. It's nice to be able to read a rag that, for once, is actually applicable and helpful to me in all my needs.

Thanks again,
Dennis Smith
Newberry, SC

[CS - Oops. Sorry about any confusion I may have caused in my response to Dave Ward's question - I neglected to mention that you need Ensoniq's TS-10 SCSI interface before you can plug a CD-ROM drive into your TS-10 (details, details). Such a device will set you back around \$200.00, I believe.

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And I'm afraid the Chicken-people are right; you don't have the tools you need to create original samples for your TS-10. However, elsewhere in the Interface, you'll find a letter from Andrew Ogden, and a response from Garth Hjelte (hey, Garth! Want a job?...). Hang onto Garth's response, because it details how to get .wav type files into a TS-10. This might become meaningful to you should you ever acquire any sort of sound- or multi-media card that supports digital recording. Because as nearly as I can tell (being a Mac guy and all), .wav files are the lingua franca when it comes to PC audio. In other words, everybody supports them. So it's pretty likely that if you can get a sound into your PC, it'll show up as - or else be easily converted to - a .wav file. And you'll want to know how to get that .wav file into your TS-10. And then you'll thank me for telling you to hang onto Garth's instructions.]

TH -

Every day I use my **ASR-10** Rackmount with a DCI 44-Meg Syquest and a Formac 840-Meg hard drive - with no problems. Fast and cheap.

P.S. E-mail and the Internet are still very expensive here in France. It's a kind of "marketing" fashion for the moment...

Pierre Gasmi
Fontaine, France

[CS - Thanks for writing. We'll add your stuff to the list of customer-approved peripherals.]

Hi Hackers -

Just writing to say I'm still using only my 16-Meg **ASR-10** keyboard to crank out local and national television themes, doing full songs within the board (mine as well as others), and having a general ball being able to do almost anything I wish in the composing/recording realm

with it.

Also, I am now a keyboard salesman here in Miami at Ace Music Center. If you're in the South Florida area, stop in and we'll exchange tricks.

Paul Santa Maria
Miami, Florida

Hi.

I have been out of touch for some time.

I just received a request for my manual for the **EPS Classic**. I still have a few left over, and I still ship them out for \$20 plus \$3 shipping in the US. A bit more for Canada and overseas.

I have a new address, however, since Issue #46 where one of my articles was published. That is where my last request originated and a relentless EPS classic owner tracked me down. The new address is 33306 Bonneville Drive, Scappoose OR, 97056; Phone 503-543-2584.

My e-mail is gdinsmore@bcc-empl.com

Gary Dinsmore
Scappoose OR

[CS - Great to hear from you, Gary. Glad to know you're still out there. Thanks for the update. Keep in touch...]

Hi,

I got my Gateway 2000 with the Ensoniq **Soundscape Card**. I called Gateway for advice about choosing some software for composing but that was probably beyond their field. Can you help?

I have a Yamaha Clavinova 750 and all I want is to be able to "write down" what I am composing.

Thanks,
Tuli
Via Internet

[CS - I'm afraid recommending music notation software for the PC-platform is a ways out of my realm. One good place to begin research on your own, though, would be back issues of the popular electronic music magazines: Electronic Musician and Keyboard, in particular, come to mind. Also, you might drop in at your local music dealer. This is where you're most likely to be able to get an actual hands-on demo of music software.]

To: interface@transoniq.com
Subject: Kraftwerk-Type Vocoder

I am responding to a letter by Johnny Guillen in the last *Hacker* in which he asks about the "Kraftwerk" vocoder sound. I went through the same search that he is going through and I tried every vocoder-effect that I could find - Digitech Vocalist II, Roland SE-50, Ensoniq DP4, etc. After trying everything I finally discovered a Korg DVP-1 and it has the old grainy sound that I wanted. All the newer vocoders sounded too pretty and clean. The DVP-1 is a late '80s voice processor that has pitch shift, harmonize, etc. that aren't very good by today's standards, but the vocoder is incredible. It's very robotic, and very dirty and grainy. It may even be a little dirtier and computerish than the phrase "music non-stop" on the Kraftwerk album, but I like it.

You might try the back of *Keyboard Magazine* and look under Rogue Music or one of the other used music dealers. I see them every once in a while. Heck, for the right price I might sell you mine.

P.S. I think the Roland one (VP-70?) is cooler but it is also harder to find and more expensive.

Brian Albritton
The Hunger
Houston, TX

[CS - Thanks for the tips, Brian. Your letter raises a good point, which I didn't bring up in my original response to Mr. Guillen: Often, the best way to achieve a

vintage effect is with vintage equipment.]

Hi,

I own a TS-10. I drive the keyboard with a Gateway Computer using Cakewalk software. I recently purchased a MIDI guitar. I tried to leave the MIDI cables as they were between the computer and the keyboard and involve the guitar using the MIDI THRU input on the keyboard but nothing happens. I also tried the MIDI Thru input on the soundcard adapter but still nothing. I asked the sales staff at Ward Brodt Music (where I purchased the TS-10) and they said it was way above them.

I need some help.

Sincerely,

Norm Ritland

normritland@mailbag.com

[CS - I wish you'd told me more about the MIDI guitar you're using - at least what make and model. Still, there are only a couple of ways you might resolve your difficulty.]

First, bear in mind that the MIDI output of your guitar controller will need to connect to the MIDI input of your computer before you can use the guitar as a controller for sequencing. If you don't need to be able to use your TS-10 for recording purposes (just for playback), you won't need to have its MIDI output connected to your computer.

If you want to be able to record from either your TS-10 or your guitar controller, you might want to see if you can't find some sort of MIDI switch-box, such as the MPU-104 MIDI Input Selector, made by Roland.

If you want to be able to record using your guitar controller and your TS-10 simultaneously (either you have four arms, or you want to jam with a friend), you'll need what's called a MIDI merge device. Anatek is one company that makes an inexpensive version.]

[Ensoniq - Clark's answer is correct, but just to remind everyone; The MIDI thru jack is an output, not an input, on all MIDI products. It echoes out whatever data is received at the MIDI input, but does not have anything to do with the MIDI data that a device itself provides.]

Dear Hackers,

Here's another tip from a rank novice. Recently I was playing my TS-12, accompanying another musician who was playing the piano. I had made a preset keyboard split, with these voices and keyboard zones:

MULTI-BASS A0-G3+
ORCH STRINGS A3-B5
ASR FLUTE C6-C8

I could play bass with my left hand, and sampled strings or flute with my right hand. The only problem was that I only had two octaves or less of each lead voice, and the melody I was playing in ORCH STRINGS went up to C6 occasionally. I couldn't play that high note in strings, since the flute started on C6.

My solution to this was to get an inexpensive two-octave MIDI keyboard controller (by Novation). This little keyboard is connected to the TS-12 at the MIDI In port. I reprogrammed by keyboard split like this:

MULTI-BASS A0-G3+ MIDI-OFF
ORCH STRINGS G3+-G7 MIDI-OFF
ASR FLUTE C3-C8 MIDI-LOOP

You set the MIDI-OFF or MIDI-LOOP with the TRACK MIDI button. The manual was vague and not very helpful about this - I just fiddled around until I found out that with ASR FLUTE in MIDI-LOOP, the flute voice will sound when I play the remote keyboard controller, but not when I play the TS-12. The bass and strings sound only when I play the TS-12.

Now I have programmed other three-

way keyboard splits, where one lead sound only plays on the remote keyboard, and the bass and other lead sounds only play on the TS-12 keyboard. The remote keyboard could play a drum set or bass line. I can set the remote keyboard on top of a piano, and play a TS-12 voice, while playing live piano to a TS-12 sequence. It opens up many new performance possibilities.

David Simenson
Merced, California

[CS - You make a good point, David. Not all TS-10 (or ASR or KT or whatever) voices have to be performed from the instrument's built-in keyboard. Some can be controlled from external sources (external keyboards, drum pads, sequencer, etc.) at the same time that others are controlled internally.]

[Ensoniq - Nice tip! Actually since you want the flute to only be triggered from MIDI you can set the Track Status to either LOCAL-OFF or MIDI-LOOP. LOCAL-OFF means that the keyboard will not "talk" to the internal voice, but it will respond via MIDI. MIDI-LOOP is a variant of that setting, which compensates for the possibility of having controller information be sent from the keyboard, go through a computer, and come back again to the keyboard, doubling the action. This can cause volume to "spiral" down or other controllers to go beyond the desired range. In your situation LOCAL-OFF will work fine.]

Help!

I'm still stuck, I downloaded Convert V1.4 and managed to convert a *.wav file into a *.ins file, I then tried to put it onto a floppy disk, but the two programs that put the files onto disk (edm and ep-util) only use files with extensions *.ed* and *.gkh I thought edm could put *.ef* files straight onto a floppy but apparently not. So what is my next stage? Convert will not convert a *.wav straight into a *.gkh so I'm a bit stuck. Please help me because I really want to hear a

*.wav file on my TS-12. Thanks a lot for your help.

Andrew Ogden
Manchester
England

[TH - We passed your letter on to Garth with the following results (Thanks, Garth!)...]

[Garth (Rubber Chicken) - I understand your confusion - the documentation on these shareware/freeware type programs is not very good. Let's try to sort this out.

First, epsutil.exe is actually an older program, written by Michael Chen in 1992. The last program he put out was an improved version of this, called EPSDisk. This (generally) combined all the epsread/write/util type programs into one program.

In EPSDisk lingo, The .gkh type file is an entire disk-image file, in PC file format. An .ins file is a single file image. An .ins type file can be written to floppy using EPSDisk - you just need to format the floppy yourself first, since an .ins is not a disk-image file (that has the formatting info on it), but a single file image. EPSDisk does write the .ins file to floppy.

But you are not out of the hole yet. The Convert 1.4 version seemingly does not convert to .gkh or .ins adequately. In the end, you won't see the file come up in the directory when you insert it into your EPS/ASR, or you might pick up some other type of error. Now, with the help of the oak.oakland.edu people (thanks guys for the thread), here's a sure fire way of converting .wav files to EPS/ASR-formatted floppy only with shareware/freeware programs:

1) Start with a 16-bit .WAV file. Since .wav files always just look like "wav" files, sometimes this is tricky. It could be an 8-bit .WAV file. For example BASS.WAV.

2) Use Convert 1.4 to convert it to an

AIF file. Syntax: convert [path]bass.wav [path] -AIF.

3) Use the shareware/freeware program AIF2EFE.EXE (written by the indomitable Terje Finstad) to change bass.aif to bass.efc. Syntax: aif2efe [path]bass.aif [path]bass.efc.

4) Use the Ensoniq Disk Extractor (ede.exe, not to be confused with the commercial Ensoniq Disk Manager; edm.exe) to save the file to Ensoniq formatted floppy. EDM does write .efc files to Ensoniq formatted floppies.

5) Unfortunately, you'll find that the root key is a bit off. As of right now,

Transoniq-Net

HELP WITH QUESTIONS

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

All Ensoniq Gear - Ensoniq Customer Service. 9:30 am to noon, 1:15 pm to 6:30 pm EST Monday to Friday. 610-647-3930. Ensoniq's Fax On Demand line, (1-800-257-1439) can also be used to retrieve specs, OS info, hard-drive info, and the like.

All Ensoniq Gear - Electric Factory (Ensoniq's Australia distributor). E-mail address: elfa@ozemail.com.au; their web site at <http://www.ozemail.com.au/~elfa>; or e-mail their resident clinician, Michael Allen, at mallen@geko.com.au. Phone calls, Business hours - Victoria. (03) 480-5988.

All Ensoniq Gear - The Electric Factory in New Zealand, phone (64) 9-443-5916, fax (64) 9-443-5893, or e-mail geoffm@elfa.co.nz (Geoff Mason).

TS Questions - Pat Esslinger, Internet: pate@execpc.com, Compuserve: 74240,1562, or AOL: ESSLIP.

TS, VFX, and SD-1 Questions - Stuart Hosking, stuh@ozemail.com.au.

MIDI users and ASR-10 Questions - Ariel and Meiri Dvorjetski, Internet: s3761921@techst02.technion.ac.il, or dvorjet@technix.technion.ac.il. You can also call Sincopated BBS at (Israel country code: 972) 4-776035, 24 hours, 28.8K Modem. Please Login as: ENSONIQ, Password: MIDI.

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

VFX Sound Programming Questions - Dara Jones, Compuserve: 71055,1113 or Internet: ddjones@netcom.com or call 214-361-0829.

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

SQ-80, VFX Questions - Robert Romano, 607-898-4868. Any ol' time (within reason) EST.

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

EPS, EPS-16 PLUS, & ASR-10 Questions - Garth Hjelt. Rubber Chicken Software. Call anytime. If message, 24-hour callback. (612) 235-9798. Email: chickenEPS@willmar.com.

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

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

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

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

ESQ-1, MIDI & Computers - Joe Slater, (404) 925-8881. EST.

there is no way of changing that, unless you do it in a EPS/ASR.

One commercial program, SoundVert 1.03, will convert .WAV files into any Giebler format. It is a Windows program, written by Tim Dorcas, who specifically did it for TS owners. This will avoid the root key problem. It is sold through Rubber Chicken Software.

Hope this helps!

Special Note: If any of you use these shareware programs, please take time to send the programmer a check for payment. These programs are not easy to write, but not everyone has time to market things either. Show your appreciation by paying for the product.]

Greetings!

I've been a reader of the *Hacker* for some time now and wrote a couple years ago in reference to incorporating a computer with my EPS-16+. (At the time I was in need of some in-depth training regarding interfacing computers with the music I was creating.) Now I'm writing about a weird little recording problem.

Having accumulated that much needed experience using computers, I'm more confident about identifying and solving problems. But this has me stumped. My current setup includes: an EPS-16+ w/2x expander, an ASR-10R w/16Meg, SCSI, Digital I/O, an Apple CD-ROM, a Micron 100 MHz Pentium, 16M EDO RAM, two 1G-Seagate SCSI HDs, Plextor 4-Plex SCSI CD-ROM, Adaptec SCSI Controller, AWE 32, DAL's Digital Only Card, 3D Blaster, 17" MAG Multisync, a plethora of programs, A Tascam DA-P1 DAT, and a bunch of other gear. (I'm using CL's Wave Studio for now until I can afford IQS's SAW Plus.)

I could possibly get a quicker response to the problem I'm experiencing by calling Ensoniq Customer Service but it's not that crucial at the moment. (Chances are I'll figure it out before this gets printed – and that's okay.) This is what's happening:

When I try to sample from my computer (using the DAL card) into the ASR I/O I'm successful on the first few attempts but on subsequent tries I start hearing those nasty pops and clicks that the manual talks about when a 48k sample rate is input. It says to ignore the pops – they won't be recorded, they're just a clock rate anomaly. But some of the garbage is still being sampled and the pitch is being raised a half step or so at the root note. Transposing or changing the root note doesn't help. And this is happening when I sample either channel.

I realize the ASR can recognize 48k but my computer system is not capable of sampling at 48k (the WAV files were recorded at 44k, 16-bit stereo). My local dealer said to reboot the ASR but that didn't help. I'm pretty sure it's not the DAL card. It works fine when I download a sample to my DAT (which locks perfectly to the card). And I can sample from the DAT to the ASR fine and vice-versa – which could rule out the input all-of-a-sudden going bad. I'm running a pretty long RCA cable from my computer to the ASR (actually, two RCA's connected by a female-female connector). I thought that could be it but the same cable works fine with the DAT scenario. My suspicions are either the input is freakin' when it feels the signal coming from the computer or that OS 3.53 may be need updating (unlikely).

On a happier note, I've found the "Hack" pretty informative while I've been subscribing and I recently recommended it to an attendee at an Ensoniq clinic when he overheard me talking to The Man, Doug Nestler. I can usually digest the whole thing in one sitting – I guess there's only so much information you can accumulate in a few weeks and I usually only read the columns that pertain to the EPS or ASR (which isn't a problem as *TH* is a forum for *all* Ensoniq products). And I often try the programming or sampling suggestions. And the fact that it's now available on the Net is evidence that you're staying current. I haven't installed a modem in my PC yet. (Bad computer user! Bad!) I'm anxious to see what *TH* will offer in the future. Many thanks in advance.

Sincerely,
Kevin Capito
AudioGraFX
Louisville, KY

[Ensoniq – It sounds like you are supplying digital input data at a sample rate other than what the ASR wants to see. The ASR digital input will try to lock to any input rate, but only a 44.1 kHz rate will work properly and not be transposed. It sounds like the rate you are supplying may be outside of the locking range and the ASR is intermittently losing sync. A modification was made to the DI-10 board in early '94 to improve error handling. How old is your board?

It's also possible that there is something wrong with the digital I/O board, but since it works with the DAT player that seems unlikely. Possibly your PC is putting out data at some rate other than 44.1 kHz. A DAT player has a wider lock-in range since it needs to be able to handle 32 kHz, 44.1 kHz and 48 kHz sample rates.

The last thing that comes to mind would be digital noise from the PC corrupting the output signal. Make sure you don't have any ground loops between the computer and the ASR. At any rate (pun intended) call us.]

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