The Yamaha QY-70 FAQ (by Joe Orgren)

DISCLAIMER: The QY70 FAQ was provided originally as a public Service by Joe Orgren (qyguy) athttp://www.geocities.com/qyguy/qy70faq.htm. However, it is now offline for some time now and since it is really THE resource for this nice Sequencer QY70 that goes well along with non-Workstation Synths such as the XP-30, I decided to put a version I downloaded two years ago here. Joe, if you're out there and continue to provide this great resource, please drop me a line!
UPDATE: I just found that Reocities kind of keeps the old geocities webpages alive, including the original QY70Faq: http://reocities.com/Hollywood/Prop/8991/

new FAQs (added by Johannes):

Q: What are the differences between the QY-70 and the QY-100?
Q: How can I play a song back in the Loop mode, e.g. for practicing?
Q: Can I use the TO-HOST connector with my Computer without a Serial Port?
Q: How can I more quickly access the Job/Edit Menu?

Q: What will I lose if I get a QY70, rather than a QY700?
Q: How are the sounds on the QY70? Are they editable?
Q: How do I reset the QY70 after a crash? (Thanks, Frank Cabacungan)
Q: Is there any easy way to shape control change messages (volume curves, filter sweeps)?
Q: How will I live without my computer sequencer? And what's all this pattern business?
Q: Can the QY70 do both linear and loop-based recording?
Q: Can I convert linear tracks to loops, cut/paste notes, etc...
Q: What is it like to step-record on the QY70?
Q: Don't the Pattern tracks force you to do certain things on certain tracks?
Q: In Pattern mode, can I drop preset phrases (single-track patterns) into the "wrong" tracks (e.g. a drum phrase on a chord track)?
Q: What are Automatic Reharmonization and Chord Templates?
Q: Haven't I heard that Style before?
Q: How do I make my drum sounds come out on separate MIDI channels?
Q: Can you build your own drum kit on the QY70?
Q: How do I edit individual drum sounds?
Q: Got any tips on cool stereo effects? (thanks Jason Anniballi)
Q: What does it mean when a sound name begins with 'S.' or ends with 'K'? (thanks Jason Anniballi)
Q: Will I need to use a computer once I add (x synth) to my setup?
Q: Is there any good PC software for the QY70?
Q: Are there any QY->MIDI conversion programs for Windows?
Q: How do I connect my QY to my PC? Do I need a wacky cable?
Q: Can the preset phrases be output to a PC based midi editor for notation?
Q: What toys can I add to my QY70?
Q: Do I need a controller keyboard and synth or could I use a synth that has a controller?
Q: How did you make those drum pads?
Q: Got any tips for taking advantage of the portability of my QY70?
Q: I've had a blast playing with Groove Templates...
Q: How do I make my QY70 ignore my MIDI keyboard's channel, and always record on the active track?
Q: How do I select different patterns under MIDI control?
Q:Whenever I play a general midi file (not an XG file) through my QY70 I have to reset channel 10 to the drum kit
Q: It takes a very long time to scroll through all the sounds and get to the drums.

Q: Are there any midi strings to let me assign pattern tempo control and global pitch change/transpose to faders on my PC1600x?
Q: Does the QY70 use MIDI Time Clock (MTC)?
Q: How do I transfer songs between my QY70 and my other hardware sequencer?
Q: How do I get "into the guts" of my QY70 and play with the sounds?
Q: I'm trying to use SysEx messages from the List Book, but they don't work.
Q: I'd like to ask my QY70 NOT to receive on a particular channel...
Q: How do I make the QY70 play some tracks on an external synth, and NOT internally?
Q: How do I use my QY70 as a drum machine and preview the various preset beats, without hearing those pesky chords and bass lines?
Q: Why not just control volume and other parameters with CC messages?
Q: Can I set up my Peavey PC1600x to control Pattern tracks?
Q: I want to use my drum pads and PC1600x to trigger pattern changes.
Q: What's the best method of working with the QY70?

Q: What are the differences between the QY-70 and the QY-100?

- While its basic operation is the same as the QY70, the QY100 comes with the following additional features:
- Guitar/Mic input with gain adjustment.
- Amp Simulator with 18 editable/customizable guitar amp presets and 5 editable/customizable microphone presets.
- Storage for Songs, Patterns and Amp Simulator settings on 3.3V SmartMedia cards.
- A foot switch jack; allowing for Start/Stop control of a Song or Pattern, progress control of Sections in Song or Pattern mode, and On/Off control of the Amp Simulator.
- A [PARAMETER] function button to access Amp Simulator setups and parameters for guitar and microphone input.
- An additional 28 Voices for a total of 547 Voices.
- Two additional Drum Kits for a total of 22 Drum Kits.

Q: How can I play a song back in the Loop mode, e.g. for practicing?

Just start playing a song pressing [SHIFT]+[PLAY], then it'll loop infinitely.

Q: Can I use the TO-HOST connector with my Computer without a Serial Port?

YES!! All you need is a Serial-to-USB connector and you can basically give the QY-70 a USB Midi Connection. Works great and saves you lot of hassle when chnageing the connections with your other synths for connecting it with your DAW or just for loading other songs or backup.

One that definitvely works and on top is a steal (2.99$ incl. worldwide Shipping!!!) is this one from DX:**http://www.dealextreme.com/details.dx/sku.24512**

Q: How can I more quickly access the Job/Edit Menu?

This is an undocumented feature: Too avoid to scroll the long Job Menu, once in the Job menu, just press the MENU button again and with the right four Soift buttons you can select the four principal categories e.g. to directly go to SONG operations.,

Q: What will I lose if I get a QY70, rather than a QY700?

The major differences are in screen size, memory size, number of tracks and measures, and the availability of a floppy. Also the 700 features knobs for direct manipulation of some things, a separate numeric keyboard, and more sophisticated editing.

In terms of polyphony, the QY700 has twice the power (64 simultaneous notes vs 32).

But in terms of variety of presets, the QY70 has about 20% more voices, at least going by names. However, they don't all sound completely unique to me, especially in the drum kits area.
Comparison of the Pattern Mode:
1) QY-700 = 16 tracks, QY-70 = 8 tracks
2) QY-700 = 256 measures, QY-70 = 8 measure

Q: How are the sounds on the QY70? Are they editable?

This is a very subjective question, and I haven't heard as many devices as some have. Generally IMHO, the sounds on the QY70 are quite serviceable. Pianos and percussion sound very good, synth sounds, bowed and plucked strings are pretty good. Wind/brass sounds are weaker.

The real key is that all sounds are editable, and you can really polish 'em up this way. The QY70 has excellent voice edit capability. I'd be lost without it. By editing voices (and embedding on-the-fly edits with SysExcMulti messages), I can really bring the built-in sounds to life. I like to program filter sweeps and attack-time sweeps. As time goes by I expect to be programming all sorts of real-time parametric changes.

There are several classes of synth sounds. There are synth versions of many basic sounds (e.g. you get strings, but also synth strings, voice and synth voice...). There are some smokin' synth bass sounds, some of which are velocity sensitive so the filter opens up and gets nasty when you pound the keys harder (external keyboard is recommended, but you can program velocity as well). There's a lovely family of pads, from New Age to tribal-sounding.

On the QY70 you can graphically edit the following parameters for each voice or drum kit, or even individual sounds within a drum kit:

- Filter Cutoff
- Filter Resonance
- Attack Time
- Decay Time
- Release Time
- Pitch Bend Range

Many more parameters can be changed through SysExcMulti messages, which you can hand edit to insert into a sequence.

Don't forget to beef up your sounds with the built-in effects, including chorus, reverb, flange, distortion, and delay. You can edit the effects parameters too (e.g. delay time, feedback, mod depth).

Q: How do I reset the QY70 after a crash? (Thanks, Frank Cabacungan)

To Reset the QY70:
Simultaneously press OCT UP, OCT DOWN, F#, while turning on the unit on.
Note: You must use the F# nearest the OCT UP/DOWN keys, otherwise it won't work.

To Enter Test Mode:
Simultaneously press SONG, PATT, FAST FWD, while turning on the unit.

Q: Is there any easy way to shape control change messages (volume curves, filter sweeps)?

It's not exactly graphical, but you can tell it to do a linear or curved (convex OR concave) sweep of most common parameters (CC's, volume, etc). You specify start and end points, start and end values, and the density of points in between.

Or, you can get a Peavey PC-1600X or Keyfax Phat Boy, and tweak these parameters in real time. I also still do the poor man's method, which is reasonably adequate. I have a programmable slider on my cheapie keyboard controller, and I set it to, say, CC#74 (XG brightness), and slide away at will while recording in overdub mode.

Q: How will I live without my computer sequencer? And what's all this pattern business?

You won't miss your computer a bit. Your QY won't ever crash. It won't intimidate you with a clunky user interface. And the way it encourages you to think about the structure of a song can be truly liberating.

Using Pattern mode on my QY70, I feel like I can shove chunks of song around at will, and the structuring by named Sections (Intro, Main A, etc.) gives me a feeling when I sit down to compose, that all I have to do is "fill in the blanks." I fill up Main A and Main B with notes, hopefully using some common elements (voice selection, rhythm patterns, or whatever) so Main A and Main B sound like they're related.

Then I do the A->B and B->A transitions by blending elements of both (e.g. a couple bars of chords from A, then a couple bars of chords that could fit in A or B, then some chords from B). Or I might "break it down" to just raw percussion in these bridges, perhaps with a little filter sweep or something to perk it up.

Finally, I make an Intro and Ending. For these, I might highlight tracks that seemed kind of buried within the A and B sections. For example, the Intro might feature the a bass line that was propelling, but underneath, the A section. The Ending might feature might feature a little melodic line that was intentionally subtle in the B section mix.

I'm sure this all sounds either pathetically simple or very standard to you experienced folks, but it's all new and exciting to me.

Anyway, the point is that working with patterns really helps you manipulate a song from the level of "the big picture". Plus, it's a gas, when you're building a section, to just let it loop and loop and loop, so you shove yourself into the groove of the song (or into a trance). Let it loop long enough though, and you begin to hear the section's flaws. NOW you can go in and tweak your loop to sound better.

And don't forget, loops don't have to be static! You can use SysX MultiPart mesages to program filter sweeps, track muting, or whatever, so that each time a section plays, it sounds a little different.

Q: Can the QY70 do both linear and loop-based recording?

The QY70 has two main modes: Song and Pattern. A typical song will actually use both modes. In either mode, you can record in realtime or step, replace or overdub.

In Song mode you have 16 linear tracks, and your Song can be as many measures as you like. You can record on the linear tracks, plus there are three "virtual" tracks where you specify chord changes, Pattern changes, and tempo changes.

In Pattern mode you have 8 tracks. The units of organization in Pattern mode are Styles. Each Style contains 6 Patterns (Intro, Main A, A->B, Main B, B->A, and Ending). Each Pattern contains up to 8 measures. The Main A and Main B Patterns are looped. The others will all act as a transition of some kind (e.g. the Intro Pattern will automatically kick in the Main A Pattern when the Intro is done).

Pattern tracks default to certain allocations (Drum1, Drum2, Percussion, Bass, Chord1, Chord2, Chord3, Chord4), but you can easily override the functions, if not the names, of the tracks. One of the coolest things about Pattern mode is that you can make it automatically

reharmonize on the fly. For example, you can write all your pattern tracks in C major, then in Song mode (or in realtime), make it play a chord progression (C-E-G, or C, Ebm6, Dmaug, whatever).

A typical song will combine some Song (linear) tracks and some Pattern (looped) tracks, though I have certainly composed songs using only Pattern Tracks, or only Song Tracks.

Q: Can I convert linear tracks to loops, cut/paste notes, etc...

You can pretty easily cut/paste chunks from track to track, or between Song and Pattern tracks. You can transpose, time shift, or add controller curves. You can selectively move some data from one track to another. These are all called "Jobs", and there are about two dozen different functions you can do with Jobs.

Q: What is it like to step-record on the QY70?

In step-record mode in the QY70, you have a display that looks very much like that shown below. You can see one measure, divided into 32nd note intervals, and by hitting a key you can place any note/drum sound or combination of same into each interval. You can then move to the next measure and do the same.

If you use Pattern Mode, you step record the same way, and you can create a pattern (loop) anywhere from 1 to 8 measures long.

If you want to do tweaks on your sequence (e.g. shift some hits by a 64th interval), you can go back and edit it, specifying timing with 480ppq resolution, and also velocity and other more exotic parameters. Both step record mode and edit mode let you scroll back and forth through the pattern and see and hear the hits as you move.

On the QY70, you can edit patterns in either event list format or grid/piano roll format (the latter is called "Step Record" on the QY70). The grid format is pretty basic, but it's been OK for me. All you have is two rows of hyphens ('-'), 32 per measure (in 4/4, or 24 dashes in 3/4, etc.). At each position, if there's a dot, that means there's at least one Note On event. You get no visual indication of note value or how many notes are triggered simultaneously, but if you cursor to a dot, you hear the note(s). It looks sort of like this:

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--------|*-------
  ^
--------|*-------
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As shown here, the cursor is on the third 32nd-note position of the first beat of the measure. There are Note On events at the beginning of the 2nd and 4th beats of the measure.

There are a number of controls to select what note durations and gate times to use, velocity value (if you are playing on the rubber keys), and cursor movement (within the measure, or from measure to measure). You can manually specify finer timing than the grid can show.

I use the grid mode to edit notes, and the event list to edit controller values, SysEx commands, etc.

Q: Don't the Pattern tracks force you to do certain things on certain tracks?

No. There are suggested uses (the tracks are named D1, D2, Pc, Ba, C1, C2, C3, C4 to indicate drums, percussion, bass, and chords). But you can easily override these settings (not the tracks names). Do MENU/EDIT, MENU/PHRASE TABLE. Here you can select which instrument to use on the track, how it is harmonized, etc.

Q: In Pattern mode, can I drop preset phrases (single-track patterns) into the "wrong" tracks (e.g. a drum phrase on a chord track)?

I don't actually use the canned phrases in my work, so I haven't done this exact thing, but it seems to me that at least with a roundabout method, you should be able to make this work.

The idea is, keep working with your D1 track as a "scratchpad". Set it to use a certain phrase. Then use a "Put" Job to send the phrase to a Song Mode track. Finally, use a "Get" Job to bring it back to any Pattern Mode track you like. Repeat as needed. I believe the D1, D2, and Pc tracks will let you directly specify a drum phrase, so you shouldn't need to use the trick on those tracks. After you're done using D1 as scratchpad, you can set it to whatever drum phrase you like.

After you've dropped the phrases into the various tracks, you'll probably have to manually set the tracks to use the right drum kits. That's where Menu/Edit, Menu/Phrase Table comes in.

Q: What are Automatic Reharmonization and Chord Templates?

I have used Automatic Reharmonization and Chord Templates to good effect on the 70. It takes a pattern you've written all in one chord, and morphs it to follow a chord progression. You can select from many preset Chord Templates for various genres of music. You can also create your own chord progressions to apply to patterns. Each track in the pattern can have its own "rule" for how the chord progression is applied.

Choices of rules include Bypass (e.g. for drum tracks, so you don't suddenly get different drum sounds), and several modes which follow the root of the chord only, the whole chord, or the chord including a bass note. I'll confess I'm still a little confused by the exact meanings of the modes, and my music theory is weak, but I'm of the "push buttons til it breaks or something cool happens" school. It's definitely fun, and in knowledgeable hands would probably be useful too.

There is a track (called Cd) in Song mode which is dedicated to specifying chords to apply to Patterns.

Q: Haven't I heard that Style before?

Kory suggested that these bits are ripped off:

Style #	Style Name	Stolen From	Song
7	DrmnBas3	Prodigy	Smack My Bitch Up
17	Hip Hop	TLC	Waterfalls
21	Rap	Coolio	Gangsta's Paradise
26	DscFunk2	Wild Cherry	Play That Funky Music White Boy
31	8btRock2	Sherryl Crow	If It Makes You Happy
32	CollgeRk	Hootie & the Blowfish	Only Wanna be With You
35	ProgreRk	Boston	More Than a Feeling
39	Britpop	Oasis	Don't Look Back in Anger
42	HardRock	Deep Purple	Highway Star
43	16btHard	Heart	Barracuda
48	HvyMetal	Metallica	Enter Sandman
49	MtlBoogy	Van Halen	Hot For Teacher
62	AOR Pop	Michael McDonald	What a Fool Believes
74	Soul	Marvin Gaye	What's Goin' On
85	SurfRock	Ventures (?)	Pipeline (?)
87	CW Folk	Doobie Bros.	Ol' Black Water
89	16Country	Doobie Bros.	Listen to the Music

Q: How do I make my drum sounds come out on separate MIDI channels?

If you put your drum sounds on separate tracks, they'll come out on separate MIDI channels. You could "prototype" the percussion on one track, then use the Extract Events Job to sort the different sounds to different tracks.

Q: Can you build your own drum kit on the QY70?

You can't reassign drum sounds within a kit, though you can tweak some of the sounds in each one. One kit is GM compatible, the other 19 or so are variations on it (Electro, Jazz, etc).

Q: How do I edit individual drum sounds?

You need to set the track to use DS1, DS2, or DS3 as its intrument. DS1 & DS2 are only for song tracks, and DS3 is only for pattern tracks. You have to skip all the way past all the drum kits to select DSx for your track. Then within the Drum Voice editor, you select which kit you want to start with. There's a little picture of a keyboard; you can edit only those sounds with a dot on the corresponding key.

Q: Got any tips on cool stereo effects? (thanks Jason Anniballi)

Q: What does it mean when a sound name begins with 'S.' or ends with 'K'? (thanks Jason Anniballi)

Many of the wavetable sounds are stereo. For example, the piano sound where the lower keys are panned left and the high keys are panned right. I think that all the sounds that end in "K" are panned this way (all bank 1 sounds are "Key Scale Panning"). A few of the other sounds are stereo, like "S.Strings", "S.SlwStr", "S.Choir", and one of my favorites "StBrsSec" (bank 3 sounds).

But as was already mentioned, the Chorus, Reverb, and Variation effects sound great in stereo. A cool combination for those who like the Hammond+Leslie organ sound is to take an organ sound (one of the more vanilla ones) and send it through the Rotary Speaker Variation effect. You can then use the AC1 (controller 16) to change the speed of the rotary effect.

Other great stereo effects are the Delays and a really trippy one - the Auto Pan. Try the LTurn and RTurn settings of the PAN Direction parameter - sounds 3d!

Try setting the pan for a track to zero (Random). Especially with staccatto high pitched notes (rapid fire is great), you'll get a sensation of being immersed in a rainfall of notes.

Q: Will I need to use a computer once I add (x synth) to my setup?

I can think of no reason to switch to a computer, just because you've added external equipment to your QY. I use an external keyboard controller, a PC1600x slider box, and an external synth. Also occasionally a drumpad to MIDI box.

Q: Is there any good PC software for the QY70?

There are many interesting programs out there, none specifically for the QY70, but several which are very useful with it.

You already own QYFiler, which comes with the QY70. I find it very handy for periodically backing up my QY70, splitting out individual songs to MIDI files, etc.

XGEdit is shareware, can be found at yamaha.co.uk, I believe, or perhaps a link away. It's a general purpose XG parameter editor. I haven't actually tried it, but I hear it's good.

XGWorks is actually made by Yamaha, downloadable from yamaha.co.uk ($80, free demo). It's a combination XG editor and sequencer. The sequencer user interface is something like Cakewalk. The XG editor is menus, buttons, etc. I've tried it briefly, and it's pretty good.

As far as I know, neither program will let you embed continuous CHANGES to XG parameters in a song. By that I mean, you can't make your sound morph as the song plays. The best way to do that is with a real PC1600x, using the QY as sequencer.

You might also look at

VMIDIJoy

It lets you do CC sweeps with your joystick. VMIDIJoy lets you plug in a joystick and create MIDI data by swirling it around and pushing the buttons.

MIDI Yoke

lets you connect MIDI applications to each other inside the computer, using virtual MIDI cables.

MIDI Thruway

lets you take MIDI data on either virtual or physical cables, and merge it, split it, or filter it. Also check out their arpeggiator for some real insanity!

Q: Are there any QY->MIDI conversion programs for Windows?

There is a QY-Filer utility supplied with your QY70, in both Mac and PC versions. It lets you do MIDI->QY->MIDI conversions in a jiffy. Be aware that patterns don't translate to MIDI, so you have to expand 'em before sucking them out of your QY. I use QY-Filer very often, to make backup bulk dumps of my entire QY70. Takes less than a minute, and it's real peace of mind. I've needed to go back to these bulk dumps on more than one occasion. QYFiler also lets you handle songs separately and convert to/from standard MIDI files.

Q: How do I connect my QY to my PC? Do I need a wacky cable?

No need to mess with the 8-pin mini-DIN. I actually did buy a Mac-to-modem cable, and a gender changer, but realized this would be foolish to mess with (installing drivers, swapping genders, flipping the switch between PC1/PC2 on the QY). Too many variables. Here's the easy way:

Get one of those soundcard-to-MIDI cables (about $20 at most music stores and computer stores). Plug it in and you're done, with no fuss. Works beautifully with QY-Filer and with Cakewalk. I'm assuming you have an ordinary soundcard with MIDI/joystick port.

If you're feeling adventurous, you could go get the Mac/modem cable and so forth, and you may actually get some benefit. This would leave your soundcard MIDI port free so you could have a more complex MIDI rig. Don't forget to install the special serial/MIDI driver supplied with your QY70.

Q: Can the preset phrases be output to a PC based midi editor for notation?

You should be able to use your favorite sequencer software to display/print the preset phrases. Use the "Put" Job from pattern mode to copy the phrase tracks to Song Mode tracks. Then use QY-Filer to convert to Standard MIDI files, and read directly into your sequencer. Tedious, but effective.

Or, just make a pattern track which selects a series of styles, then do an Expand Pattern Job.

To maximize your efficiency, you could build giant "songs" with many phrases strung end-to-end (kind of like the QY70 demo song).

Q: What toys can I add to my QY70?

I started out by getting an AC adapter (9 Volt, 500 mA, center positive - about $12 at Radio Shack). I've used it for months this way, so if this saves you a few bucks or the hassle of finding Yamaha's, feel free. I'm told by others that you have to get a 12V, 700mA adapter, or your adapter burns up. So that may be the better choice, though mine's been fine.

Next I got a tiny pair of Sony earphones, the kind that coil up in a little "makeup compact" and fit in your pocket. Then I got an insulated (padded) lunch box from Arctic Zone (bought it at Wal-Mart), the perfect size for the QY70, its manuals, and a bunch of acessories and cables.

I threw in a couple more Radio Shack items: One of those fake cassettes meant to let you play CD's in your car. And a cigarette-lighter DC power supply, meant for Game Boy afficionados. I tie-wrapped the two together into one little assembly. It's a blast to park somewhere and compose music while it blasts out of my car stereo.

I've also gotten a PC game port to MIDI cable so I can connect the QY70 to my PC through the sound card. This works nicely with the QY Data FIler software that came with the QY70. I also bought (but never used) a Mac serial to normal serial cable which can plug into that little round connector next to the MIDI jacks on the QY. I never used this because the book made it sound pretty complicated to select the right switch setting on the QY, and I knew I'd be fooling with null modems, baud rates, and installing special drivers 'til the cows came home. The MIDI/soundcard thing just worked first try.

I control my QY70 with a Quickshot MIDI Composer keyboard. For $99 at Micro Center (I've seen it mail order for a bit more), it's a real deal. It has 49 velocity sensitive keys, PB & Mod wheels, and an assignable slider. It comes with sound card MIDI and normal MIDI cables, and a sustain pedal, and can be powered by an AC adaptor (same as the QY, but NEGATIVE center), batteries, or the soundcard. I have two minor complaints about the keyboard. The keys are ever so slightly sticky, because they rest on rubber rather than felt. And the Pitch wheel has a little dead zone in the center, then kicks in sort of suddenly outside the dead zone. But overall I'm happy with it.

I got an old drum pad to MIDI converter made by Cheetah in 1989. I whomped up some pads from Radio Shack piezo crystals, and ended up with a nice drum control setup for under $200 (compare with $1200 for packaged drum setups). I give construction details (below) on the pads if you're curious. They cost me less than $5 each.

I was given a cute little vintage Korg synth and a wonderful A-frame keyboard rack by my mother-in-law's husband. This has been a big help, as the setup was getting pretty ungainly, spread out all over my living room.

I compose standing up, due to my back problem, and this setup has proven very ergonomic, though I still need to improve the lighting for the QY's display. I wish it was backlit. One thought is to take the mic boom in the keyboard rack and stick a light on the end.

For the ultimate in cheesy mixers, I use a headphone splitter. I plug it into the headphone jack of one synth, and wire it to the other. This is technically a no-no, but what the heck - it adds no noise at all, and it costs $1.29. The only drawback I've noticed is a reduction in volume.

But the ultimate accessory is definitely the Peavey PC1600x MIDI Command Station. This box and a little programming will bring your QY70 to life. Directly manipulate sound parameters with sliders. Adjust the levels of the tracks with something that feels like a real mixer. Mute tracks with the push of a button. Go wild, program this puppy to send any MIDI message in response to any fader or button. At

Peavey

there's an "interactive forum" about the PC1600x. The PC1600x doesn't exactly add NEW capability, but it makes it so much easier to use some EXISTING capabilities, that it may as well be new. With the PC1600x, you can control many many parameters in real time, which would otherwise require laborious hand editing.

Q:Do I need a controller keyboard and synth or could I use a synth that has a controller?

There's no reason not to use the synth's keyboard. Just turn off local control in the synth, then plug its MIDI in/out to the QY out/in jacks. The only reason I have a separate controller keyboard is that my synth is so old that it's not velocity sensitive.

Q: How did you make those drum pads?

I've found I can really have a great time tapping out a rhythm on these.

First of all, you need a pads-to-MIDI converter, which aren't as common as they used to be. I know of one available from Paia, the same company that sold analog synth kits in the 70's. I think their web site is www.paia.com.

Normally, these things take 1/4" jack inputs. Electrically, each pad is trivially simple. Just connect a piezo transducer (several sizes are at Radio Shack; get the biggest) to a 1/4" mono phone plug. I recommend shielded cable; RS should have that too. I connected the black lead on the transducer to the shield, and to the "ring" (long section) of the plug. The red wire goes to the plug's tip.

Mechanically, it's a little more involved. There are two main problems to solve. First, the transducer (I think RS calls it a speaker) is buried inside a plastic can, so you can't tap on it (unless you poke a pencil through the hole). Second, you need some acoustic isolation so that when you tap on one pad, you don't trigger all the others.

What I did is get a razor saw (very important - your product will look like crap without this tool try MJ Designs, Ben Franklin, or a hobby shop), and saw off the top of the can, exposing the metal backside of the transducer. The correct way to saw this off is to lay the saw flat on the table with a little spacer under it, about 2 mm thick (sheet rubber is good). Lay the transducer upside down and go around it a few times, briskly sawing away. You'll get a nice clean cut. WATCH OUT THOUGH! You have never used a tool as sharp as a razor saw. It'll slice you to the bone, and you won't even realize it at first.

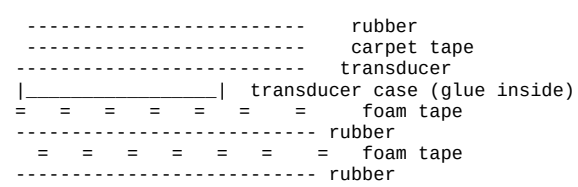
I sanded the remaining cut rim so it's smooth and attractive, but not too thin (leave at least 1 mm).

I cut some sheet rubber (gasket material from the plumbing section at Home Depot) to fit just inside the rim of this metal piece, and stuck it down with double faced tape (cut at the same time). I got the double-faced tape at HD also; it's outdoor carpet tape. I love this tape by the way; I've had a piece holding carpet to the underside of my front door for years. It gets dragged across the threshold many times a day, and is still absolutely perfect. It's as wonderful an invention as gaffer's (duct) tape.

Anyway, if you tap heavily on this thing, you'll pop the transducer out. What you have to do is pry the back off the case, and run a bead of hot glue around the rim of the transducer, on the inside. This will give excellent strength. Hot glue the back back in place. By the way, it'll come off more cleanly if you run an exacto blade around the rim of the back. Watch you don't cut the wires or yank 'em off the crystal.

OK, the final thing is isolation. I cut two pieces of rubber the size of the bottom, and stuck 'em on with double-faced foam tape. I used several little squares of foam tape around the

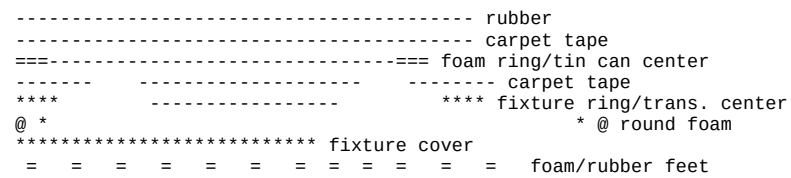
circumference of the bottom of the case, then a layer of rubber, then more foam tape pieces (OFFSET from the first ones), then the bottom piece of rubber, for anti-slip. Looks kinda like a tiny wedding cake.



It's not as tall as it looks here!

By the way, Paia also sells something called "Thum Drum" which puts several tiny pads into a finger pattern on top of a box. You may like this, and it's easy, because it's a kit, or I think you can buy it assembled. But I like my little separate pads, 'cause I can arrange 'em to fit my apish hands.

I also made a couple of large pads (4" dia). I popped the transducer right out of the plastic case. I stuck 'em to a tin can lid (thin lid, minimal ridges stamped in - try French's French Fried Onions, 6 oz size). Same rubber material on top. Used some round electrical fittings from HD (Lamp fixture ring and a matching cover and matching round gasket). Stuck the rubber/tin can/transducer assembly to the lamp fixture ring with foam gasket between for 1 stage of isolation. Stuck the ring to a flat cover with round 1/2" poly foam window seal material between, giving another isolation stage. Added foam and rubber feet to the botom, for more isolation and anti-slip. Passed the cable out through a hole drilled in the side of the fixture ring.



I hope you can read these silly diagrams. This large pad is also quite thin - only about 5/8" tall.

I saw an article on the net about a guy who made pads from Remo practice pads. These go for about $20-$25, in 6" and 8" sizes. He slipped a tin can lid and transducer right under the "skin" of the Remo pad. Costs about $30, vs about $100 for a commercial drum pad, but I'm way too cheap for that. I'm sure the result is lovely loking though, and you can mount it rather than throwing it on a table.

Q: Got any tips for taking advantage of the portability of my QY70?

First, get yourself decent batteries. Good batteries (Duracell, Energizer) will last 4-5 hours. Cheapies (Store brands) will last 1 hour. Verified repeatedly by my personal experience. I understand there are also 1.5V lithiums available, which will last even longer.

A couple of tips, if you want to fly QY:

(1) Put your QY in a kid's lunch box. I guess I'm pretty old, but I just recently discovered lunch boxes aren't metal any more. They're padded/insulated bags, with straps and extra pockets. The one I got is the exact right size for my QY70, and has enough room to include manuals, headphones, audio adapter plugs, AC adapter, extra AA's, and a car-cable. The whole thing is so small, it hardly counts as carry-on luggage. I put a little scrap of terry cloth (towel) in the bottom of the bag, and lay the QY70 in, face down. After a fair amount of travel, there isn't so much as a scratch on the display.

(2) On the noisy plane, it's best to use big earcup headphones, like my Sony MDVR-600's. The

isolation and extra loudness are a real help. Yes, I managed to cram these into my lunch box. I also brought a pair of those tiny in-ear strapless jobs that come in a pocket case, and a headphone splitter. More about that later...

(3) I got all the way to LA one one set of batteries. I've found that Duracells last about five hours. Store-brand batteries last about one hour. Even at half the price, cheapie batteries are a ripoff, giving about half the usage per dollar. Make sure you tuck a spare set of batteries into your lunch box. You might consider those new lithium AA's - I hear good things about 'em

Why the extra headphones? The QY70 is very intriguing and alluring to your fellow passengers. They will naturally be very curious why your head is bobbing as you type on that little box. It's a real kick to hand your headphones over and blow 'em away! I had a cute girl doin' the John Travolta thing in the aisle, and a guy who exclaimed he was gonna run from the plane to a music shop to grab a QY70. I played a new-agey, relaxing song for the poor white-knuckled lady next to me, and it soothed and cheered her considerably.

Onward and upward!

Q: I've had a blast playing with Groove Templates

but it's really hit-and-miss. Some appeared to have no effect on my 4/4 pattern; others dropped some notes entirely, some were really kick-ass. I'm sure the ones that didn't work would be great with different patterns. Anyone got info on the intended usage or other properties of Groove Templates?

No good info available. You just have to try 'em on your song. And what works with one song may not on another, so you'll have to repeat for each song.

Q: How do I make my QY70 ignore my MIDI keyboard's channel, and always record on the active track?

This is convenient, because you can leave your keyboard on channel 1 all the time, and just hop to different tracks in the QY70. This feature is undocumented. Do MENU/UTILITIES, MENU/MIDI. The MIDI THRU setting can be OFF, THRU, or RECMONTR. In RECMONTR mode, the QY70 will translate your keyboard's output to whatever track you're working on. It will also apply any MIDI filter you've selected (on the same screen). When would you NOT want RECMONTR? If your MIDI input contains several channels, meant to trigger multiple tracks in the QY70. Be aware that the RECMONTR setting also affects what comes out the MIDI Out connector.

Q: How do I select different patterns under MIDI control?

It depends. If you are in Pattern mode, the standard MIDI "Song Select" message will instead, select a Style (see QY70 List Book, page 53). But if you are on a Preset Style, you can only select other Preset Styles. And if you're on a User Style, you can only select other User Styles. And if you're in Song mode, the Song Select message only selects a song. Song Select is F3 ss, where ss is the song or style number.

Some possibilities do come to mind.

(1) You could program multiple tracks within a pattern to contain different beats, which will each sound good if played alone. You can then use SysExcMulti Volume messages to "mute/solo" the various tracks. On a QY70, this would give a choice of 8 different beats.

(2) There is a message to select different sections of one style (Intro, Main A, Main B, etc.) The only sections that will actually loop are A & B, though the lead-ins may be useful to you as well. But just using A & B, you still double your possibilities to a max of 16 different beats. The Section Control message is F0 43 7E 00 ss 7F F7, where ss is...

(3) If you need to have the song itself still there (e.g. melodic lead track along with the beats), you could make multiple copies of the song, each set up to use a different pattern style. You could switch song to song, and within a song, switch between A & B. Within A & B, "mute/solo" individual pattern parts. It's messy and consumes lots of space, but this might come close to your needs.

Q:Whenever I play a general midi file (not an XG file) through my QY70 I have to reset channel 10 to the drum kit

Actually, the files you are playing use a layer beyond GM. I can't remember the name of the spec (MM or MPC something?), but it's a PC thing that drums are on CH 10 by default. But anyway, I don't think there's any special mode in the QY70 to make it default to CH 10 = drums.

Q: It takes a very long time to scroll through all the sounds and get to the drums.

You can type in the number codes for sounds (see the List Book). But this won't go to the next group (melodic sounds, the FX banks, drum sounds). However, you can skip through much faster by using SHIFT + instead of just +.

Q: Are there any midi strings to let me assign pattern tempo control and global pitch change/transpose to faders on my PC1600x?

I know there is a multipart message for transpose, but I don't believe there is a global transpose.

Unfortunately, there doesn't seem to be a tempo command. I welcome anyone else's input. Tempo control would be terrific to do with a fader. I believe the closest things would be either Song Position Pointer (SPP), or MIDI Time Clock (MTC), neither of which lends itself to our needs. What's needed is a firmware change for the Peavey PC1600x, so it could send MTC 24 times per quarter note, at a fader-controlled rate.

Q: Does the QY70 use MIDI Time Code (MTC)?

Yes, you can set it to either send or receive MTC, for syncing to other MIDI devices. See MENU/UTILITIES, MENU/MIDI, MIDI Clock (Internal or External).

Q: How do I transfer songs between my QY70 and my other hardware sequencer?

I suppose for a QY-to-hardware sequencer dump, you would make the QY "play" the song, and put the MC-50 in MIDI "record" mode. Make sure that they are synced with MTC (the QY can either send or receive MTC, as you prefer). What squirts out of the QY is this: Song Mode Tracks 1-16 come out on MIDI channels 1-16.

If a Pattern is playing, its tracks 1-8 come out on MIDI channels 1-8, or 9-16, as you prefer. This implies that if you are using all 24 possible tracks (16 Song, 8 Pattern), you may want to separate the Song & Pattern tracks before transferring, and do two transfers.

Q: How do I get "into the guts" of my QY70 and play with the sounds?

You can use the built in graphical sound editors (Voice and Drum Voice). These cover the basics. On the mixer screen, do MENU/VOICE EDIT. If you want to do more detailed editing, you need to learn about SysEx messages, especially SysExMulti... See your List Book for details, starting around page 54; multipart voice parameters are listed on page 57. You can easily insert any of the QY70's SysEx messages in "English" by doing MENU/EDIT, MENU/INSERT, then you scroll through all the types of events to insert (Notes, PB, ... SysExMulti, ...) Also see the various SysEx topics here.

Q: I'm trying to use SysEx messages from the List Book, but they don't work.

If you enter SysEx messages in the QY70 with its built-in editor, you're OK, because you see the messages in "English". But if you're, say, programming a PC1600x to send QY70 SysEx's when you move sliders, you'll have a big problem.

Here it is: On pages 54 and 55 of the List Book, they give the formats for the various classes of SysEx messages used by the QY70. Unfortunately, the Model ID shown in each format is incorrect. They list it as 5F, when it should be 4C. I'm guessing that 5F is the Model ID for the QY700, and someone forgot to edit it.

Here's an example. The format for a Parameter Change is shown as:
F0 43 10 53 aa aa aa dd F7
It should be:
F0 43 10*4C*aa aa aa dd F7

In this message, you look up values for "aa aa aa dd" in the various MIDI Parameter Change tables on the following pages, for example (EFFECT 1) or (MULTI PART).

Here's a specific example: To change the vibrato rate to maximum for the C1 pattern track, send the message:
F0 43 10 4C 08 14 15 7F F7
In this message, 08 means (MULTI PART), 14 means track C1, 15 means Vibrato Rate, and 7F means the maximum value.

Q: I'd like to ask my QY70 NOT to receive on a particular channel...

Q: How do I make the QY70 play some tracks on an external synth, and NOT internally?

Q: How do I use my QY70 as a drum machine and preview the various preset beats, without hearing those pesky chords and bass lines?

Embed a SysExcMulti message in any track, which either
(a) commands the undesired track to a volume of zero
or
(b) commands the undesired track to respond to NO MIDI channel (127)

For method (a) or (b), make sure you play the song long enough to hit the SysExcMulti message, before you start your external sequencer, or before you jump into Pattern mode for beat previews. Method (b) is more powerful, because (a) will be undone as soon as you jump to a new style. Also note that it doesn't matter what track you throw a SysExcMulti into, because the message itself specifies a target track. Consult your list book for System Exclusive MultiPart messages. Song tracks 1-16 = Parts 1-16; Pattern tracks 1-8 = Parts 17-23.

Jason Anniballi's original writeup:

This solution works by telling the tone generator voice (Yamaha calls them "Parts") to ignore all midi messages, effectively muting them. Of course you need to turn them back on again to un-mute them. By default, each Part "listens" to midi data on the same channel channel as it's Part number (Part 4 plays MIDI channel 4), but you can change it to any channel you want or tell it not to listen to ANY channel. This feature can be useful in live situations if you want to setup keyboard splits or layers and have different Parts play on the same channel.

As far as I can tell (on the QY70) Parts 1-16 correspond to the 16 tracks in Song mode. The Pattern parts are as follows:

Part# PatternVoice

17	D1
18	D2
19	PC
20	BA
21	C1
22	C2
23	C3
24	C4

So in order to turn off the D2 track at measure 2 then on again in measure 3, you need to do the following:

In ANY song track, go to the "Edit" screen and the to the "Insert" screen. Change the "Note" parameter to "XG Exc Multi", then change "ElRsrv" to "RcvCh.". The first number is the Part and the second is the receive channel. Set the first number to "18" for D2 and increment the second number up until it says "OFF" (i think the value is 127). Of course you want to set the Measure:Beat:Clock to where you want the mute to occur. It should look like this:

```
M002 XG Exc Multi
1:000xRcvCh. 18 OFF
```

To turn D2 back on in measure 3, just set Part 18 to listen to channel 18 again:

```
M003 XG Exc Multi
1:000xRcvCh. 18 18
```

Be careful about setting the receive channel to match up with the Part number when you want to unmute it. I think you could really screw things up otherwise! Also it may be possible to get "stuck" notes depending on where you actually place the Mute. It might be safer to use the MultiPart volume messages:

```
M002 XG Exc Multi <--Mute - Volume 0
1:000xVol 18 0
M003 XG Exc Multi <--Full On!
1:000xVol 18 127
```

I think there are other tricks you could play with the Pattern tracks on the fly with MultiPart messages (panning, Effects sends, etc.). So try 'em out!

Q: Why not just control volume and other parameters with CC messages?

You DO need sysex to mute pattern tracks from a song track, which is a very useful thing to do. The reason is that MIDI channels (as supported by the generic Peavey setup) support 16 tracks. Pattern data is on tracks(multi-parts) 17-24.

SysEx techniques will also work perfectly fine for Song tracks, but may be overkill. If your desire is to mute a track so it'll be played only on external equipment, use the System Exclusive Multi message which sets the MIDI receive channel. Set it to 127 to disable it. But if you just want to automate fades and simple sound parameter morphs, you can use ordinary CC messages for Song tracks. For example, CC7 is track volume. I think CC74 is "Brightness" (filter cutoff), etc. See your list book. By the way, the QY70 (as a trick) lets you embed CC messages in your Pattern tracks, but they will of course repeat with the pattern, and you probably want to use your changes to make your pattern LESS repetitive.

So to summarize: SysExMulti messages can be placed in a Song track to control a pattern track. They can completely mute a track which will be played externally, and save on QY polyphony. And SysExcMulti messages can control very obscure XG sound parameters. But SysExcMulti messages eat more memory than CC messages, so should be used only when you need the above mentioned features.

Q: Can I set up my Peavey PC1600x to control Pattern tracks?

Use these strings to make your Peavey sliders control Pattern track volume and morph a single track. You can set the buttons to Mute or Solo, as desired. I set the buttons for sliders 9-16, just to ID the slider. I set the buttons for sliders 1-8 to Mute. In performance, I have the display showing the Utility screen which lets me set the "dv" (device number) value to the track that I want to morph. 0-15 = Song tracks, 16-23 =Pattern tracks (In hex, that's 00-0F, and 10-17).

```
F0 43 10 4C 08 10 0B pr F7 Slider 1/D1 Track
F0 43 10 4C 08 11 0B pr F7 Slider 2/D2 Track
F0 43 10 4C 08 12 0B pr F7 Slider 3/Pc Track
F0 43 10 4C 08 13 0B pr F7 Slider 4/Ba Track
F0 43 10 4C 08 14 0B pr F7 Slider 5/C1 Track
F0 43 10 4C 08 15 0B pr F7 Slider 6/C2 Track
F0 43 10 4C 08 16 0B pr F7 Slider 7/C3 Track
F0 43 10 4C 08 17 0B pr F7 Slider 8/C4 Track
F0 43 10 4C 08 dv 18 pr F7 Slider 9/Filter Cutoff
F0 43 10 4C 08 dv 19 pr F7 Slider 10/Filter Res
F0 43 10 4C 08 dv 1A pr F7 Slider 11/Attack
F0 43 10 4C 08 dv 1B pr F7 Slider 12/Decay
F0 43 10 4C 08 dv 15 pr F7 Slider 13/Vibrato Rate
F0 43 10 4C 08 dv 16 pr F7 Slider 14/Vibrato Depth F0 43 10 4C 08 dv 28 pr F7 Slider 15/Tremolo
Depth*
F0 43 10 4C 08 dv 27 pr F7 Slider 16/Filter Mod**
```

For the last two to work, you must insert a maximum pitch bend (+8191) message at the beginning of your control (Song) track.

Here is a

QY70 bulk file

containing the PC1600x preset described above. NOTE: After you download this file, you must rename it to "PC1600x.blk" before using it. It is not a ZIP file; I had to fake the name in order to get it past the geocities censors. The PC1600x sysx message is in Song 5 within the bulk file. Use the QYfiler software that came with your QY70 to load it into your QY70, then play it into your PC1600x. You have to set the MIDI input channel of the PC1600x to 16, so it will see the sysx message.

Q: I want to use my drum pads and PC1600x to trigger pattern changes.

The QY70 has two messages you will find useful. One is "Song Select" (page 53 in the QY70 manual):

F3 ss

Where ss is a number from 00 to 7F. In Song Mode, this will select a song (ss is limited to 00-14 for actual song selection). For your purpose, the cool thing is that in Pattern mode, this message selects a Style. The tricky bit is that ss is limited to 00-7F (0-127). Since there are 128 Preset Styles, and 63 User Styles, you have to select either any Preset Style or any User Style manually with the QY70's buttons, before you start. If you manually selected a User Style, then the F3 ss message will select other User Styles from then on (ss = 00-3F). And if you manually selected a Preset Style, F3 ss can select other Preset Styles after that (ss = 00-7F).

If the QY70 is in Pattern Play Mode when it receives an F3 ss message, it will finish playing the current measure, then switch to the new Style. When it switches, it will play the same Section (Intro, Main A, etc.) in the new Style, as it was playing in the old Style.

The other QY70 message of interest is "Section Control":

F0 43 7E 00 ss 7F F7

where ss is the section number, 08-0D for Intro, Main A, Main B, etc. This message works in both Song and Pattern modes.

I programmed two sliders on the Peavey PC1600x to send these strings. I set up the first one with this string:

F3 pr

and the second slider with this string:

F0 43 7E 00 pr 7F F7

Now (in Pattern Mode), the first slider selects a Style, and the second slider selects a Section. Remember to manually choose between either User or Preset styles on your QY70 before you start.

Now, how to trigger this stuff externally?

What you need to do is program the PC1600x buttons to send these messages. For example, you might make 10 buttons select 10 different Styles, and the other 6 buttons select the 6 sections within each style. Set up the button strings similar to the slider strings, but substitute specific numbers for the "pr" variables.

Next, you want to program each PC1600x button to respond to an externally supplied MIDI Note On message ("Remote Mode"). See page 15 in the PC1600x manual.

I did all this, and now I can hit buttons on my MIDI keyboard and select patterns on the QY70 in real time.

The only other thing you will have to do is program your drum pads to send MIDI Note On messages with note numbers that match the range you programmed into the PC1600x, and send on the channel you programmed in the PC1600x.

Q: What's the best method of working with the QY70?

The following is 100% personal opinion. I have used several different techniques, and I'm always evolving my methods. One thing I haven't tried is using the built-in patterns and phrases. They're remarkably good, but I really prefer to "roll my own." Here's what I've done.

I did a song entirely from handmade patterns with no "foreground" (song mode). I step-sequenced all six sections (intro, main a, etc.) Then I recorded the "Pt" track in real time (selecting which section I wanted as I felt the urge). Then I recorded the "Cd" track in realtime, hitting a new fingered chord whenever the mood struck. Note that I set up the pattern so that chord changes would work well with automatic re-harmonization. I selected a simple set of a few notes to play the melody in my patterns, and told the box to include those tracks in the re-harmonizing. I know little to nothing about the theory of chord progression, but I diddled around until my fingered chords sounded good in succession. The result is pretty convincing to my novice ear; it sounds like a real song with key changes. Way cool, Yamaha! I doubled the lead line to an external Korg synth, which added a nice thickness. I put the Korg on a separate track, and laid out-of sync mod wheel and velocity changes to the Korg and internal lead tracks, so the filters sweep at different times for the two sounds, even though they play the same melody. The Korg isn't velocity sensitive (it's from 1985), so I "muted" the Korg's track by setting the velocity of all notes to 1. I have learned on this list how to do that in a better way, now. This song has a very techno feel to it.

My next song is the opposite extreme from the first, which was all step-sequenced. For the next song, I started with a lead line that I had tried to play "live" over the patterns of the first song. The combination sucked, because the patterns were already busy enough, and I couldn't

play to the beat very well anyway (hey, I'm a novice). But I still felt the lead line had potential. I plopped it into a new song, and made two time-shifted copies of it on separate tracks, for a kind of "round" or call/response. I selected different sounds for the three tracks. Next I live-played some slow string chords behind it. My sleazy method of chord progression was just to keep moving one finger at a time, so the chords just gradually evolved from one to another. At the end, I lifted one finger at a time til the strings died away. The result is haunting and spooky.

On the next song, I didn't use patterns either; I step-sequenced the lead line and bass track. I used only a lead line (again, doubled on the Korg), an occasional bass riff, and a constantly varying wind sound (with some flanging and "chords" to make it sound far more real). I "played" the wind sound in real-time. I used the Copy Events Job to lay 3 copies of my "AB" section end-to-end.

On my current song, I'm mixing patterns and song mode tracks. I've discovered the Groove PlayFX thing, and boy is it fun! I made a little bass line pattern, and looped it for hours while I went through all the Groove Templates. Found several that made my dopy 4/4 pattern really kick ass. It's important to try 'em all, there's such a variety. And I'm quite sure some that sounded like nothing would be very different with the right pattern to groove against. I wish there was some info on what each Groove Template really does, and what patterns it might work well on. Advice, anybody?

The other thing I'm doing is using a lead sound which I've crafted to sound like a MiniMoog (I think). I started with "Sq Lead" and softened the attack and decay. I also boosted the filter's resonance. I used SysExMulti commands to make my pitch bend wheel control the filter instead of pitch. So I can play a lead and sweep the filter all over the place. I set the PB->Filter sensitivity to +6450. I found that just using "Brightness" (CC 74 I think) controller, or programming my mod wheel, gave only a slight sweep to the filter, but the PB wheel is far more dramatic. Any ideas why this is?

I changed my QY70 working style a little for my next composition.

I wrote it almost entirely in pattern mode. I made a style that uses all 8 tracks in each phrase. The tracks are all played in the same "key" (my own oddball scale). I wrote them to sound pretty good when played all at once, but I don't use them all at once very much. I have 3 percussion tracks, two bass lines, and some assorted others.

In song mode, I have dedicated track 1 as a "mixer automation" track. It is a long list of Sys Exc Multi messages, which turn the pattern tracks on and off (or up and down), sweep filters, and so forth.

In this way, I can take the one phrase (e.g. Main A) and loop it for quite a while, with no sense by the listener that the song is repetitive. As the mix shifts, the song morphs into very different things over time. But because it's always coming from the same basic loop, there's always a feeling that the groove is continuous.

Since I have enjoyed the Play FX Groove Templates so much, I've decided to also experiment with Chord Templates on this song. I like the result. Because I made all the tracks fit into a fixed key, the chord changes work decently on every track (a major benefit of Pattern Mode). This also contributes to the sense of continuous groove.

I'll confess my skills with keys and chords are limited, so I'm really appreciative of the automation offered by pattern mode. I may not have a clue of the name of a chord or scale I'm using, but the QY figures it out and forces everything to play along correctly.