

MONOMACHINE

SFX-6/SFX-60/SFX-60 MKII

Tips for Using the Monomachine (Using Information from the Elektron-Users Forum)



Compiled by tIB

Tips for Using the Monomachine

Version 1.01



This document has been compiled using posts from the Elektron-Users website.

Apologies for not listing names, it proved to be too time consuming. If you have any suggestions for things that are missing, have spotted any glaring mistakes or you have something you would like to add then PM me at the Elektron-Users forum and I'll update.

Happy tweaking,

tIB

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MONOMACHINE SYNTH BASICS

Basic Monomachine vocabulary:

Machines = Synthesis ie. SWave, SID, DIGIPro, FM+, VCO and FX

Tracks (1-6) = host your desired Machines and Patterns

Patterns = the total or whole of the 6 track parts.

Kits contain all of these...Machines, Tracks, Patterns and Midi data. Think of Kit's as the equivalent to the MPC's Programs...Just remember that its all integrated.

Machines > Tracks > Patterns

(you don't need a pattern to hear the machines though.....but Machines have to have a Track for playback)



I would load up a 'New Kit' on say Bank F-1 and see for yourself: Starting from scratch/New Kits really helped me to learn it. I know other people find it helpful to hear the pre-existing Kits....either way, just keep hammering at it. It took me probably about 1 week or 2 to really understand how everything was working together.

SEQUENCING BASICS

Note input works (SFX-60) through 16 step triggers (you can choose what octave you're in), and/or external keyboard. You can do both in real time, step-sequencing, and can edit an individual note after the fact. You can see what particular pitch a note-on trigger is by pressing and holding the particular step trigger. While doing this, you can use the arrow keys of the MNM to alter the pitch. You don't specify note lengths in the way in which the MIDI machines on the MD do. Each synth track has envelope parameters (attack, hold, decay, release) which control note duration. You can, of course, freak the fuck out with parameter locks for total control.

In terms of mono vs. poly modes. It's all or nothing--either you have 6 internal mono tracks or 6 tracks polyphonically assigned to one 'machine.' Synthesizer parameters are roughly parallel to the MD's, and, IMO, there are more than enough for a huge palette of sounds. The individual machines within the synthesis types, coupled with their own parameters, coupled with effects, filter, delay, lfo, etc., provide ample room to diverse sounds.

The sequencer is actually one of the strongest parts of the Monomachine.

SONG MODE:

In song mode, you can specify the offset of a pattern. For example, if you have a pattern that is 32 beats long, you can specify that the pattern should start on beat 5, play for 16 beats, and then switch to another pattern.

The Elektron song sequencer is derived from old-school MOD trackers, which require that the composer enter in which events will occur, row by row.

Stick with it! You may find that the sequencer will do what you want it to do, and show you things you didn't know you wanted to do.

You can change the start point and length of a pattern from within songmode. What this means is you can literally remix and rehash patterns from within songmode. This is also possible with the MD. So, for example: Instead of your pattern starting on its first beat, it starts on the third beat and comes in off-beat, you can use this to create stutters and that feeling that the beat has just fallen in on itself before you right it a couple of bars later etc..

...or by changing the length of the pattern : create shorter/longer loops from your original patterns. - useful for that housey build up where the loop reduces to 1 qtr beat (or any variation between 2 - 32 - 1/16th notes) instead of being 4. Or you can use a combination of the two concepts for total rehashing.

This is just a basic use of these functions, when you combine them with switching between patterns all kinds of stuff is possible.

To achieve 1 step of the mnm's song mode (shortest vaule is 2 steps), double the tempo of for the two steps using the tempo fix; its crude but it works.



One thing that helped me a lot is "Function+Down Arrow" it's a copy of the high-lighted "part" of the song, so if you're muting you always get your "newest" muting part – recording mutes

EXTERNAL MIDI SEQUENCING

The MNM is able to sequence 6 midi tracks each offering a root note + 3 additional notes thus total 24 in theory. In practice this is not quite true: Midi memory limit is 400 midi notes (single or root) and 192 chord notes.

Using this info, a single step for single midi track can have an astounding 193 note polyphony. However, you can only enter 99 chord notes per step, so the actual polyphony is 100. Using all six tracks you can trigger 5 more base notes so you can get 198 note polyphony.

Well, nobody is going to use all that on one step, so the polyphony is spread across the steps. For example, you can have 4 note chords for every 64 step, and this would make total 64 base notes and $3 \cdot 64 = 192$ chord notes. You would have still 334 base notes for other midi tracks and they would have to be monophonic because the chord notes are all used for the 4 note chords.

So, the amount of polyphony on Monomachine is a bit unclear by its definition, you seldom max the midi memory out so I wouldn't worry about it.

Important thing to note is that notes are shared between all the tracks inside the pattern so entering a lot of chords on few tracks eats the polyphony from others. And this limit affects only the Note on-steps. You can still have all the triggerless steps you like for controlling CC and PB.

ADVANCED SEQUENCER FUNCTIONS

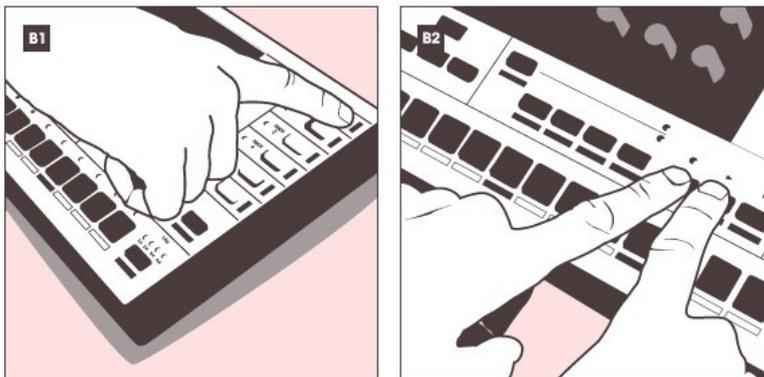
REAL TIME AND STEP RECORDING

Step recording is done by pressing the **record** button.

Realtime recording can be accessed without stopping the pattern by holding **rec** and **play** together:

1. Put your gear playing
2. if you now just press the record-button you enter into grid programming
3. If you press record and while pressing the record also press play, you enter to live record more (which is of course quantised to grid).

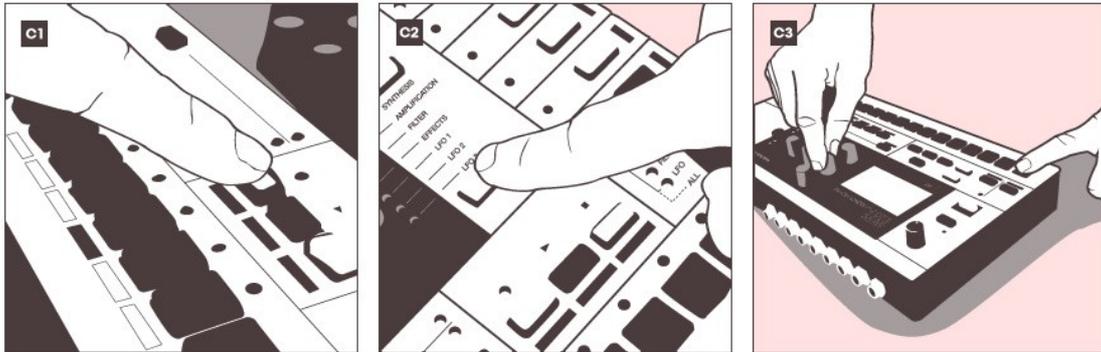
RECORDING MELODY LINES BY PRESSING THE TRIG KEYS



1. Press the **STOP** key if the Monomachine is playing and choose track 1 by pressing the corresponding **TRACK** button. Make sure the record led is unlit and press a few random **TRIG** keys. You should now hear sound, as the **TRIG** keys function as a mini-keyboard. The first **TRIG** key is a C note. You can change octaves by pressing the **UP** and **DOWN** arrow keys.
2. To record in real time, press and hold the **RECORD** key whilst pressing the **PLAY** key. The led next to the **RECORD** key will now flash and the Monomachine will start playing.
3. Press a few **TRIG** keys. These will now be recorded to track 1. Exit real time recording mode by pressing the **RECORD** key twice.

PARAMETER LOCKS

Perhaps the most important aspect of the monomachine sequencer is the concept of parameter locks. Experiment with them as much as you can and you will soon discover just how powerful they really are.



Choose track 1. Make sure the record led is firmly lit and not flashing by pressing the **RECORD** key.

Press the **DATA PAGE** keys and choose the filter page.

Press and hold a **TRIG** key containing a note trig. A note trig is indicated by a firmly lit led above the **TRIG** key.

While holding the **TRIG** key, turn encoder **A** to change the BASE parameter. This will alter the frequency of the filter, filtering out more low frequencies the more you turn the knob. Note how the parameter graphics will invert in the display.

Release the **TRIG** key. Note how the led above the note trig will start to flash. This indicates that the parameter has been locked to the chosen value. Parameter locks can be applied to all parameters found in the data pages. Have fun!

CLEARING P-LOCKS

To clear P-locks from an individual step hold the trig and press 'clear' (play).

To clear P-locks from a pattern hold down Function + Clear at the same time but hold it for about 3-4 seconds and select clear p-locks.

You can do all of the previous methods without stopping playback.



SHIFTING PATTERNS: You can shift patterns along 1 step at a time by pressing **Func + Left** or **Right**

TRIGLESS TRIGS:

The trigless trigs feature on the Monomachne seems too cool to be under-utilized given that it seems unique and really extends the grid sequencing paradigm as far as hardware sequencers go. Trigless trigs mean that you can change parameters without having to launch certain other parameters:

For instance, let's say you have a sequence and would like to retrigger the LFO without retriggering the amp envelope or some other parameters, you can with trigless trigs.

You could do the same with notes. or, say that you have a sound with a very long decay -- you could play that one note on step one and then change its sound as it decays over the rest of the steps: Put in a trigless trig and then lock the parameters for each step. The sound would change, but the envelopes don't have to be retriggered on each step.



It's best to think about trigless trigs abstractly, then let your mind wander through the possibilities that they open up.

Monomachine triggers could be further explained like this:

1. Normal trig

This is when you play MnM normally. It trigs the note-on and amp, filter-env, lfos. The normal behaviour.

2. Specific trig

You can choose to trig just amp, filter-env or lfos, any of them and any couple of them. Use 'trigger button' on the UI and manual.

3. Trigless trig

Doesnt trig any of those above, just changes the whatever parameter you want. You can change any parameter, even notes with this. Very handy for soundcreation. Also people would love to see this on the MD also.

Further examples of trigless trig uses:

Lets say I have a regular trig NOTE_ON event in step 1 of my sequence that has a long So decay and I re-trigger the LFO only (a trigless trig) on step 5. Which LFO am I actually triggering on step 5 since the MM has 3 LFOs? Does it trig all three?

It will trig all the three. BUT you can change the trig destinations and amounts with the parameter locks; you can make lfos work differently on all trigs (or trigless trigs) throught the sequence.

Using trigless trigs and slide can make really good shit, like on the vo6 or FM+ it can be really great sounding.

A filter is a great tool for drums; trigging the filter for rytmh and playing a synt on the same channel is a good technique to use in order to conserve track limits.

KITS/PATCHES

With the Monomachine you have to save a kit to save a machine; ie. each pattern does not have an associated kit saved with it. You can customize the Mono to your workflow i.e. you can save various basses in a bass kit, leads in lead kits or you save your 'performances' in one kit (bass-perc-lead-pad) etc.

Copying a machine out of another track:

Go into edit (almost like you are setting up or changing the current machine) but don't select a machine.

When you are in the machine selection window (IE. saw, sid, vo, etc) press function and copy

Select the track you want to copy to (1 through 6 on the right side of the MnM) then press function and paste.

You just exit out of the machine window and you are done. If you want to save your change then save the kit as normal. Alternatively make another kit to change the machines used in a progression of sequences.

LFO:

The monomachine features 3 LFO's per track.

LFO times work at 2x number, so 64=1/4 note
(with multipliers you can get large LFO time range)

A couple of words on the lfo's:

1) The lfo's will run whatever happens; that is whether you trigger a note or not, the lfo runs. So you cannot "turn off" the lfo. It is calculated anyway.

2) The lfo is always tempo synced. On the lfo page, you'll find the mult parameter which multiplies the speed of the lfo with a certain factor relative to the tempo. The spd parameter next to it, gives you a finer speed control which lets you break out of the 1/16 or 1/2 measure per lfo cycle speed. (I hope this makes sense)

3) The lfo is free running. This means that the lfo triggers on the lfo track are meaningless, unless you configure the trig parameter on the lfo page on "trig", "one" or "half". That parameter is very important.

When you configure the lfo trig parameter on "trig". Putting an lfo trigger on the lfo trig track will reset the phase of the lfo to the beginning of it's cycle.

Try the following experiment:

-place two notes on a track: one on step 1, the next one on step 9.

-go to the amp page and set hold on anything above 64. You have a continuously running tone now, while in fact it is built with two notes.

-go to the flo page:

-pitch on 80

-trig on free

-mult on 8

-depth on 100 or something

Now go to the lfo trig track. There should be two triggers, both on the same steps as where you programmed the notes (1 and 9). Program some extra triggers, I don't care where.

To see how the triggering works, move into the lfo page again and put the trig parameter on trig, hold, one, half and free again....You'll see.

Say you want to route track 2's LFO to control a parameter on Track 1. Go to track two, press Function + Synth Page select to enter the LFO screen as normal. The first parameter on the LFO screen lets you then choose which track the LFO will be applied to.

SWING

The swing percentage amount is for all tracks. You can't have individual track swing amounts. But what's possible is to change where in the 16 step it should swing and where not: You can set the grid steps that have swing applied for each individual track AND a global swing track. The global swing amount is applied to every step on every track which you specify.

You could probably use this technique from the MD tips and tricks to offset a track:



It's a little tricky but you can offset another track slightly with swing. Completely fill a track with swing triggers and set swing at about 51%. This track will run slightly behind the other tracks. Program the main beat on the swung track and add flams on the unswung track.

ARP:

The Monomachines arpeggiators offer a number of features all of which can be found in the user manual. The following are suggestions for its uses:

I use the monomachine's arpeggiators along with transpose a LOT: They're amazing when you know how to work with them.

For example, I often sequence a nice chord progression in Ableton Live, then put Ableton's arpeggiators to work and spit arpeggiated data back into the monomachine. I'll route that data into a track in the mnm, turn the arpeggiator to "add", and quite often wonderful things happen.

You can tweak the arp settings live by going into arp mode and changing the length of the arp, the steps on which the arp sounds, the number of octaves the arp covers, and numerous other functions.

When you have an octave set in the arp, OJMP controls the note on which the octave jump occurs.

TRANSPOSE

The transpose function is pretty straightforward, it's used to transpose either whole patterns or individual tracks up or down. You can also use it to create chords over more than one track by copying a machine/sequence onto others track and then transposing the copied parts.



The transpose function can be tweaked to add breaks or fills on a bbox track.

SLIDES

MNM slide function is a little different to that of say a TB303 as it doesn't slide pitch, however this can be recreated.

Parameter lock one of the LFO's on the note that has to slide to the second one. The waveform I use is saw up (/ |) for slide up and saw down (| \) for a slide down.

You have to play a little with the speed and amount etc to make the slide work, and MOST IMPORTANT you have to transpose the note you're sliding because it's really out of tune because of the LFO you apply.



Use parameter locks on the portamento feature

Turn portamento up and just let the the notes overlap on a internal sequencer. That means:

Turn portamento to 64.

1. use hold long enough (set it to max for test)
2. trig one note
3. trig other note after it (don't program note_off to MnM; no yellow leds).

You can also use the slide function to 'smooth' parameter locks: MNM track-slide feature makes your sequence more 'liquid'. For example:

1. Set low cutoff parameter lock on step 1
2. Set high cutoff parameter lock on step 16
3. Press function + slide
4. Select step 1 and 16 in slide mode

Tied notes with MnM are easy:

1. Make basic synth sound with SuperSaw for example.
2. Use Amp-Env to make is 1/16 lenght.
3. Program some notes on the sequencer
4. Now, program some trigless trigs, with the note changes next to normal trigs
5. Parameter lock the 'hold' value bigger for notes that you want to be tying other notes.
6. Adjust the slide to your taste.

That's it. If you do it couple of times, you will get the workflow and start to think less technically this.

You should also do parameter locks for filter and different slide-times. Even more, you can use the



*You can do some pretty nice acid-lines out of MnM.
Don't forget to route your filter to joystick
There are some great waves for acid to found at the end of DigiPro-machine,
or you could load your own into the mk2.*

POLY MODE:

You can solo an individual track by entering poly mode with that track selected.

Poly mode intros/fills:

- 1) mute all but the track you are to solo in poly mode (eg track 1),
- 2) start the sequence and play track 1 in poly mode, layer the sound to create some atmosphere,
- 3) go back into normal mode (with the other tracks muted) and the layer you've made keeps playing until you unmute the other tracks (2-6)

MULTITRIG

Multi trig mode basically means you can play all 6 machines on 1 midi ch, so you have to set the multi trig ch on the mnm to the same as what you are playing it from. Mine is set 1-6 machines 7 multi trig ch etc. This is set in the global section

Multi trig responds to midi track 11 or 10 only, though I believe you can change this in the global settings menu. Play some keys at it from MIDI ch 11, should work.

If you sequence the MNM externally (eg using logic) the MnM is a 6 part multi timbral synth.



The advantage of the M trig m is to combine it with internal seq/arps, so you can trig it from logic but it plays the int seq/arps with up to 6 parts. It's a little hard to control but is capable of some big sounds.

There are 4 ways multi trig works:

- *all tracks
- *key split
- *seq start
- *seq transpose

You have to select one of these modes....
and depending on which mode further parameters.
This is set in the kit section.

Then play a note on a keyboard(do that first) or send a seq note and away it goes.

With the keyboard version multitriggering is easy, under kit setup->multi select seq transp, then the kit will transpose to the key you select on the multi-trig channel, which is 8 by default.

You can also transpose each (or all) track using funct and trans and altering the setting-track moves the whole track and patt moves the individual pattern.

MULTI ENV

This is a sound shaping tool, an ADSR for all output. In poly mode, multi env will let you use 1 machine X 6 polyphony, you then use multi env to shape the the resultant audio. Multitrig does the same, but allows different machines on each track.

MACHINES

BEATBOX:

The MnM has 6 internal tracks, each of which is monophonic. In the case of using the beatbox, you can only trigger one sample per step on a single track. You can change the sample over the course of a sequence, so you could have:

Kick - Hat - Kick Snare Hat Hat

However, you can't trigger two samples at the same time with just one track. The MNM beatbox's monophony is a major limitation; you can't layer drum sounds within a track, so you need to use multiple tracks, i.e. one for kick, one for snares, one for hats etc. unless you are not triggering snare and kick simultaneously (etc. etc.), which seems unlikely. The best solution to the problem is buy a drummachine, elektron make a very nice one, it matches the MnM.

Alternatively its worth having a go at using the arp, you can get 2 notes playing very quickly together although obviously not at the same time. There is interest to be had here though with the MNM beatbox.

On a Bbox track, you can add live variation or breaks to a pattern easily by tweaking the Transpose controls.

Its worth mentioning that some of the string type sound techniques mentioned in the MD tips guide (p14 &15) should be able to be recreated in the MNM varying the pitch of, for example, a hi-hat.

The bbox also gets very interesting creating 'synth' sounds using a very short delay with a long decay feedback/width; interesting sounds to be had here.



Tranpose using the pitch knob and vary the sample start with PLocks it.

GND

Machines on the MonoMachine have a category called "synth" (GND, SID, SWAVE, FX etc) and an actual machine type called "machine" (GND, SIN, NOIS, SID6581, SAW..). So for each "synth" category you have multiple "machines".

I think GND>SIN and GND>NOIS are pretty much self-explanatory, but GND>GND doesn't produce any sound. The GND is there to trigger notes but you don't want the track to sound - just act as a trigger- you could use it to trigger external gear.

FM

To understand more about FM synthesis in general try this article.
<http://www.soundonsound.com/sos/may00/articles/synth.htm>

VO Machine

example word	vowel	VOC1 setting	VOC2 setting	
lake	A	93	118	
leak	E	40	127	
like	I	-	-	not a discreet sound (aah-y-uh)
oh	O	99	48	
you	U	-	-	not a discreet sound (y-oo)
lack	a	127	93	
let	e	124	98	
lick	i	91	109	
lock (ah)	o	127	60	
luck (uh)	u	112	53	
luke	u	71	51	
look	oo	93	61	

Phonetics chart: <http://en.wikipedia.org/wiki/Phoneme>



Experiment with P-locks on hold, decay and filters. Also you can use the track copy/paste function to create vocal harmonies with VO synth and then transpose track. Very fast and efficient and you can hear the result immediatley by going up and down with the transpose knob.

Monomachine's VO-machine with little noise and some distortion makes a nice melodic sound.

Entering the retro territory the VO machine can make some excellent mellotron-like tones, organ is another good use.

DPRO WAVES

Looking at the MnM manual Elektron explains very little how the DoubleDraw works. It seems to have same kind of rationalization as with FM-machines; you don't really need to know how stuff works technically, great sounds can be achieved by trying things out (which is so true with FM-machines).

The MKII 1.20 update brings the new functionality of the Digi Ensemble and Draw machines and included are waveforms. The waveforms are preloaded by default. So you can replace them with your own sound but can't delete them from memory. Confused? Ok, so the defaults are always there. You can overwrite a waveform by uploading your own, but if you delete your uploaded waveform the default will take it's place. The slots are never empty essentially.

The MNM 'factory' waves included:

<p>> Basic waves</p> <p>SINE HSIN TRI ZOID SQR SAW ISAW RND</p>	<p>> All the organs are really rad; lot's of character for use in any kind of music me thinks</p> <p>ORG1 ORG2 ORG3 ORG4 ORG5 ORG6 ORG7 ORG8 ORG9 ORGA ORGB ORGC ORGD</p> <p>>Electric Piano/Rhode'ish. Unconvinced at first but with some filters and EQ'ing these sound great</p> <p>EP1 EP2 EP3</p> <p>>Strings. I have used these but not as strings.</p> <p>STR1 STR2 STR3 STR4 STR5 STR6 STR7 STR8</p>	<p>> Winds. Again, not using as winds, but rad nonetheless.</p> <p>WND1 WND2 WND3 WND4 WND5 WND6 WND7 WND8</p> <p>> Vocal waves.</p> <p>MAL A MAL O MAL U MAL a (another a but sounds different) MAL E MAL I MAL a (" ") MAL M FEM A FEM O FEM U FEM a ("") FEM E FEM I FEM a ("") FEM M</p> <p>-----</p>
<p>> Synth waves</p> <p>SYN1 (synthish tone) SYN2 (" " w/ heavier body) SYN3 (" " w/ more mid range) SYN4 (variation of the above) SYN5 (very cutting) SYN6 (variation) SYN7 (brighter, highs and mids pronounced) SYN8 (even more highs and mids pronounced)</p>		

Hopefully I haven't forgotten any. There should be 64, as there is 64 slots. Many, many usable defaults but the love of the new update is that if you don't use or like some of the defaults you can replace them in a non-destructive way.

A wikipedia wavetable explanation:

To begin the process, the sound of an existing instrument (a single note) is sampled and processed using a spectrum analyzer, producing a graph of overtones contained in the sample. This graph is then parsed into a sequence of samples or wavetables, each having one period or cycle per table, generated by adding together the partials at each parse point. A set of wavetables with user specified harmonic content can also be generated mathematically. These wavetables are typically arranged one after the other in a random-access memory, allowing for easy access and nearly instant start-point changes; when the data is played back, a phase accumulator looping at a set rate (determined by the sample rate and the frequency of the note desired) feeds the samples to a digital-to-analog converter, creating a continuous waveform at the given frequency.

During playback, the waveform produced can be changed by switching to a different starting point in memory, usually on command from an envelope generator or low frequency oscillator. Doing this modifies the spectral characteristics of the output wave in real time, producing sounds that can imitate certain analog instruments (such as organs, pianos, harpsichords and reed instruments) acceptably without requiring the use of a pulse code modulation technique, which requires much more memory and higher sample rates for good results. The technique is also useful for evolving pads, where the waveform changes slowly over time and can reverse itself or loop back to an arbitrary point.

Since a wavetable oscillator can generate arbitrary waveforms, it is also possible to load simple sine wave, square wave and sawtooth wave tables and use the synthesizer like an analog synthesizer, using subtractive synthesis to modify the sound. Also, some wavetable synthesizers (such as the PPG Wave 2.3 with Waveterm) can reset the loop point on the phase accumulator to a period longer than a single cycle, making a PCM mode possible with minimal hardware changes.

Just a quick tip for windows users, you can use waveosaur to do some single cycle waveforms, its freeware and actually pretty cool - <http://www.wavosaur.com/>

To find single cycle waveforms from classic analogues go here:

For a direct link, check <http://www.defeq.com/Defeq/Welcome.html>

Yes, the double draw machine will allow you to mix waveforms. You don't have to mix them thought. There is a mixer so you can set how much you do or don't want your wave mixing. There is a Time parameter allowing to determine how quickly the two are interpolated (mixed over time). Width sets the pitch difference between the two. It's a very cool machine. Loads of sonic possibilities. Plus, you can then use the LFO's to even get freaky with it.

While the Digi Ensemble only has one loadable waveform, it does have the PCH2, PCH3 and PCH4 + the Chorus which gives you poly like character and enormously big pads and that whole mess.

Wave machine 'time' parameter:

Turn up the intensity of an LFO which is controlling osc waveform then mess about with the time setting to hear the effects, off is stepy and going clockwise smooths things out.

SOUND PROGRAMMING

BASS

FM+ is always my first port of call for basslines (im a big fan of sega megadrive sounds), just experimenting with the envelopes on simple FM ratio settings can give wild bass sounds.

The filter works like a band pass filter with double resonance. Lots of resonance on the HPF will result in a resonant peak at the lower end of the audio spectra, whereas resonance on the LPF gives more empahsis to the top end of the spectra. There is infact only one filter envelope. BOFS, WOFS are the filter envelope destinations, filter base and filter width respectively.

Also be aware that the Key tracking of both the filters is switched on. Key tracking is simply where the cutoff is changed as you go along the keyboard, usually the cutoff is higher (filter opens up) as you get higher on the keyboard. Its in a annoying spot in the kit edit menu at the end of the page, too far away for my liking;I often forget its on and you don't pass it in general editing.

I really didnt get the filter until I read in the manual that the keytracking is on, i didnt understand why/how it reacted as it did.

Just tweak and listen, I use very little/or no res on basses, just pull down cutoff and tweak in bofs/wofs and the env and it growls..... the sawmaskin is good, i think the subosc is cool, can make a deep bass a bit higher up in the scale but use subosc for subpower.

The puls is rather nice for basses, much more delicate than a saw.



Turn off key-tracking for high & and lowpass in the assign-menu. That helped me for creating a good low bass.

You already mentioned my favorites, SID & FM. The other machines are capable too but involve a bit more sound shaping. I remember when we had the "Noise" MnM Lab, I was able to get bass out of it but it took a lot more work.

I get great results by starting with the humble GND->Sin machine. Huge basses can be had.

Yeah, I'm starting to figure it out... if something is too thin...I will run a sine wave bass underneath it. FM Basses are new to me...and I've got some good ones. Haven't been too sucessful with the saw engine yet...can't get the filter to sound right. That's probably due to liking analog filters.



Add just a little distortion to the sound, barely audible. Combined with a fast filter envelope adds a bit more definition to the attack phase of the sound. Distortion could also be controlled by a triggered single shot ramp LFO.

Here are some bass related observations and tests:

1. Bigger range of useful bass-tones

MnM can deliver a loads of bass, no problem with that. Most of the time I end up creating too bassy or too low tones for being anything useful. So, a good signal of lower end of spectrum can be delivered. But the problem mostly seems to be, that they only sound good/thick on a certain range and this range seem to be so small. Compared to simple Juno-106, Juno wins, because of thickness and usability in a bigger range.

2. What's the problem

I guess MnM produces sweet and clean signals that, in the lower range, produce full energy on a very narrow area. It's hi-fi and works beautifully in the mid range (it makes MnM sound very detailed and open ended). Thickness of a Juno bass might be related analog parts, which produce a lot more harmonic distortion while driving the circuitry. Harmonic distortion spreads over the spectrum and makes produces bass-tones to have nice overtone-structure, which makes them seem more thick and present. So, when MnM creates clean 50Hz tone, Juno or equivalent creates 100hz, 150hz, 200, 400, and so on.

3. How to cure

Now you can use distortion on the MnM or use Digipro to create juicy overtones over bass-tones, but use of filter always filters them out. Distortion is build between HP and LP, and when LP is used, it filters the upper spectrum out.

I tried to cure this thing with the compressor effect and thought it could add something. Normally I hate when people tend to offer compressor as a solution to every problem, but it just might work here.

I made bass patch with SAW-machine. Nothing special, just very filtered, just low-end working here. Then I routed it to compressor. Attack and release to low enough that compressor will distort a little. Dig very deep with threshold and adjust ratio to your liking (it seems to harden the bass). Distorting compressor creates distortion to bass-tone and creates some overtones, while at the same time reduces dynamics to zero. Bass becomes more present and range seems to broaden. At first you might lose some low-end, but then comes the EQ on compressor track. Use it to boost where you want your bass line to have balls.

It's an old house-music trick. To have punchy low-end you need to compress/limit it to death, so you have no dynamics left. Otherwise they will jump out in a mix and ruin the consistency of low-end in a mix. But you also need to make it rumble, so you insert the eq *after* the compressor. With eq, you can now adjust the amount of rumble and different bassline notes around that will resonate also a little. With this you should have controlled low end. In theory at least.

I didn't try it very extensively, but it might, again, provide some starting point. I might also be interested to hear what kind of approaches you have found.

There are also some good results to be had by using the Mono's EQ.

I've found the Mono's filter envelope doesn't work well for punchy, snappy bass sounds. Try using the Exp waveform on an LFO instead. It's a lot closer to the envelope shape you'll get out of an analog, and it sounds MUCH better on bass sounds to my ears.

303 style/Acid Bass:

303 basses cant be done accurately because:

- a) There's no 303-like saw oscillator - SID saw will do just fine though.
- b) No filter like in 303 available (MnM has 24dB/oct, 303 has 18dB/oct)

However, 303ish or 'acid' sounds are possible; Just use saw oscillator and disable envelope tracking in settings. If you want slides use p-locked portamento. It all depends on what you consider acid...

To make Acid lines with MnM, takes some time at first, because you have a lot of options and you need to find your own workflow. One thing that I've found is that you tend to do too normal sequences when you are using MnM sequencer in a normal way. The sequences will end up missing the 303ish style. One great way to go around this, is to program simple melody to 'Arp-slot' and trigger it different ways from the normal sequencer; this way you will get more interesting 303 lines.

More bass tips:

- For basses remember to disable filter keytracking.
- For layering fat sounds use the track trigger (you can set T1 to trigger also T2).
- Digipro (or other synth) with arp and delay directed to internal reverb with threshold can create some fresh sounds.
- SRR works as a low quality lowpass filter, you can combine it with the real lowpass with high resonance get those progressive house filter sweeps. Boost highs with the internal eq to emphasize the SRR.
- delay times work with power of two minus one, $2^N - 1$. For 1/4 note, use 63, $1/8 = 31$, $1/16 = 15$ etc
- LFO times work 2^N , $64=1/4$ note (with multipliers you can get large LFO time range)

- positive delay send -> ping pong delay, negative -> stereo delay (panned sounds will have delay panned to same position)

- and yeah, slides are essential for fx and build up sounds 8-)



My favourite MnM machine at the moment is definitely the DPRO BBOX. It's really excellent for sharp, heavy basses when retriggered with a very short loop. With a total of 24 retriggered drum sounds you end up with a fantastic potential for different tonal characteristics. True, you're back to MD "stone age" lock programming of note values, but it sounds so cool that it's totally worth it. shot ramp LFO.

Try the following:

- Load the BBOX to a part
- Enter random notes in a 16 note pattern, something suitable for a bass line
- Tweak the retrigger time to a short value, giving the effect of a note
- Tweak AMP decay time, lower the low pass cutoff frequency, and add a short envelope to the filter to get an attack.
- Apply slight LFO to the SYNTH - PITCH parameter to get movement to the sound.
- Add a slow square wave LFO to the RETRIG TIME - this will give you alternating "notes". Alternatively you can manually change all the locks. Which reminds me - there should be a lock offset function in the MnM!
- Experiment with the notes in the pattern, add some delay, tweak until it sounds right!

Dubstep bass:

The wobble= Sine, Distortion, LFO to pitch and/or filter, parameter lock LFO speed.

You could also try that on the fm machines.

DRUMS

Note: before drum programming with mono read this:

MNM oscillator properties:

When VA appears in 1995 this was the ultimate feature to have in a synth, because "each notes sounds different than the other, like in a real analog"

I checked it and found that even true the change isn't that bad as you can't use the mono for drums...I hate my kicks phasing and losing attack but having a good and stable kick out of the GND-SIN machine isn't big deal.

Other synths like the nord modular (G1) has free running oscillators too and is very difficult to make a solid kick that don't oscillates and loose attack in a cyclic way. In this synth I use the LFOz as oscillators because you got note.on retrigger as an option in some of the LFOs

In the MD you can hear some little oscillation (phasing) in some kicks too (TRX-B2),It isn't that bad because the heavy and pronounce ramp and the "tick" attack mask the phasing. Try a 4x4 kick on that machine and remove all but the basic tone and you could hear what I'm talking about

808 style:

You can get a reasonable result by using the GND-SIN machine :trig a low note, set the hold / decay parameters suitably & I think I've also used an LFO on PITCH set up several octaves, to be triggered on each hit to get the MD-type 'ramp'. Its a fairly 'soft' kick, but nice & low & boomy.

I didn't mention the GND sin but I tried it too, the most simple way to make that sound, but the main "problem" is that the kick is quite soft.

I've tried to use the envelopes and the filter to make it more punchy but it get "clicky", a click made by the env.

I'm trying to do it with FM but I think the main problem is caused by the env section that is good for synth sounds but not for percussive synthesis, so even with FM will be quite problematic, I should understand how to set the envs right...to be punchy but not clicky.

Even the snares (made with the gnd-noise) are not so snappy, that's caused by the env.

I Try a light dose of exponential curve on EQG and/or vol for added punch.

The filter page is key with drums, tweak the attack, decay, BOFS and WOFS.

I agree with you that FM machines are very good at percussive synthesis...

I tried from the beginning messing with the filter, as I do on my MS20, get the Q to the top and play with the env amount. The result was a good powerful "909style" kick but with a kind of oscillation that turns every kick a bit different... quite unstable.

Try some layering to get some attack, that's the classic way to create a full drum hit. Maybe add some filternoise, and or some fm attacky to the sin.

I've used the "cross-trig" function to play two sounds with a track but the problem is not the harmonic content but the clicky/fluctuant sound... If I use the sin the sound is quite clicky, but I cannot get the click off cutting the freq with the filter, cause the click is produced by the env, is not generated by the oscillator.

My conclusion is that you can produce rhythm sounds with the mono, but they need external processing or sampling for a uniform kick, as it's difficult to get a consistency between the different triggers in a sequence (eg same bass drum, same settings, slight variation in sounds over a bar).

I focused on getting the Q high to achieve the most powerful/rounded Kick but I was quite wrong. Using the Square or the TRI wave and using the EXP LFO(full amount on the volume parameter) instead of the amp env I got the sounds punchy and not clicky, and for the Kick instead of Q at full amount the Qs are at zero, and the kick is SOLID and STABLE! 😊
the speed of the EXP must fit the length of the env but a bit faster so the click does not appear and the sound is more punchy.
I used a too slow LFO to get this result..

Using the SID with a TRI wave (as oscillator), width turned to 0 and the HPQ to 0 LPQ to 127, wofs 36 and decay 43,
LFO1 -> amp-vol -> trig one, wave EXP, speed (as you like), dpth 64 (THIS IS THE KEY TO GET THE PERCUSSION PUNCHY!!!)
LFO2 -> filt-hpq -> trig one, wave saw, mult2, dpth 55
LFO3 -> amp-dist -> t one, wave sqr, mult 2x, dpth 64

Playing with the env, the Qs and the speed of LFOs you can obtain a great variety of kicks.

using the same settings but;
the LPQ turned to 0 filter dec 100,
wofs to 25,
the kick has a more harmonic feel- more 808
I forgot to mention that the amp ahdr is : 0 0 64 0
and dist is 0 and vol is 64.

SNARES

Id say the SID and GND noise machines are your friend for these (along with the bbox snares which you can tweak into nice sounds). If you don't mind using 2 tracks for a snare then layering a combination of these is an option too.

If you param lock a SID machine you can make a bass and snare on the same track, providing of course you don't want a long decay on either sound. (In fact if you get the filters right for the Bass drum I'm pretty sure you can get a nice kick with the GND noise too...)

Interesting and digital lo-fi snares could be created by using the SID machine

I was trying to get some equivalents of analog snares but using more digital texture to get

something like the synthetic drums in some early digital home organs, like casio VL-1, SK-1 and the like. So I use the classic model of a short tuned spike attack followed by a noise burst with longer decay

If you use an exponential decayed LFO in on-shot mode to modulate the wave of the SID you get a sound that could go from the triangle wave to the noise one very quickly, so this makes a really close approximation of the model I described...

Try move the speed and depth of the LFO to get more "membrane" or more "snare"...you can further process them with both filters to make a more restricted band of noise.

PADS

Despite being regarded by some as a 'cold' machine, the mono is capable of some nice pads.

For string pads you have the Superwave ensemble, which enables triggering 4 notes simultaneously (or playing the chord from a midi keyboard by playing one note). The MK2 wave machines are also suitable for a variety of pad or drone sounds.



A short "lesson" in how to get there:

- 1. Use a minor chord (both ensemble machines are good for this, but the superwave ensemble machine have more modulation possibilities)*
- 2. Add some distortion*
- 3. Tweak the sound itself, narrow pulse width usually sounds better when distorted*
- 4. Cut some frequency using the build in eq for the sound*
- 5. Low pass filtering, just a little resonance*

Now you should have something that sound quite nice. The next step is to use the LFO to modulate parameters in the sound; eq frequency, pulsewidth, et.c.

Some nice slow LFO's routed to the EQ and Filter section parameters can really at some nice atmospheric pads. Also, with the slow attack and long release tip, add some delay to make a mono sound a bit 'bigger'.

Ensemble Wave is your friend for classic Roland-ish pads:

Check the sysex file of Emnine's Eva W Was track in the sandbox section of the forum: Nothing but Ensemble Wave and two reverb tracks (apart from the drums of course).

Don't forget

-the chorus paramter or add a chorus track.

-parameter locking the suboscillators for adding 9ths-7ths-sus4's etc.

Try using the EQ as a notch filter for phasing effects: set gain negative and sweep frequency slowly with an LFO.

You can get shimmering tones with the high pass filter:

Start with the cut off high and sweep slowly into the mids, with some LFO for extra movement. Slow values of the interlace parameter on the LFO can also add sparkling effects. Sweeping SRR can also give sparkling tones, especially into a delay.

You can also build up washes of delay by setting the feedback close to 64

You can accomplish some nice pads using 5 detuned Swave sawtooths (with the unison width different on each one) through a chorus machine: Comes out pretty nice, though the only problem is that you use up all voices/tracks this way.

However, you don't need to go into poly mode to get full sounding pads; layering two tracks with related tones can already get pretty lush sounding

The monomachine has a very bright sound, to combat this:

Turn the Width parameter down to around 40 makes the sounds a lot less harsh and put the delay time to 47 and Delay send to -40, and as much feedback you can take gives a little bit of warmth. Also using pan on a LFO aswell as a little bit of pitch modulation on another LFO.

Take out from there and mess with the filter envelope aswell to shape the sound over time, add little bit of LPQ for this and use the EQ reverse (subtract some frequencies).

Do not forget to use the sinewave for bass, the best one for dub in my opinion

ENS CHORDS

Look in the back of the manual it explains the ens much better, but major chord with the ENS is 0, +4, +7 and minor you just move the 3 in the 1, 3, 5 down a half step, you could try many other different variations too.

0 + 3 -5

0 -5 +10

-5 +3 +12

-2 +7 +10

For this kind of stuff I often use the Gipsy Woman progression

G -2 +3 +5
G -2 +3 +4
x2

F +2 +5 +9
G +1 +6 +9
F +3 +7 +9

F +3 +6 +8

and vary last 2 steps with

D +3+7+ +10

C# +3 +7 +11

ORGAN TONES

Start with a supersaw
set the three pitches to taste
automate filter sweeps with lfo

a very common thing to get organs in analog synths is to use a sub oscillator TWO octaves below the main oscillator....then choose a square wave for the main oscillator; you can get such oscillator arranges by using the superwqve square or ensemble

In ensemble you can also get some intermediate harmonics by setting notes to specific intervals...set the wave parameter to achieve an square wave

Set a lowpass filter static in a low to mid frequency and turn up resonance.

With classic ADSR you could use the amp EG to simulate the click at the start, but no luck whit the odd EG on the mono...still you can use an LFO with max modulation aplied to volume to get a spaike at the start of the sound...just put the LFO in one-shot mode, choose a linear or logarythmic falling curve and set the speed as fas as you can.

Another way is to set the filter EG to minimum time attacjk and decay, and turn up a little the EG depth of the filter. The amp has to be controlled by a kind of gate EG, so choose minimum attack and release and set decay to max to get infinite sustain.



Use the other LFO to achieve Leslie-style FX by modulate pan and pitch in a doppler way.

If you're in the ensemble oscillator you can fat your organ using the chorus in the synth section.

Put some reverb with long decay but in very little quaqntity, so you can only hear the tail when you leave the keys

In Ensemble Wave where you have 3 pitch parameters which you can setup in relation to the note triggered, e.g if you trigger G3 and set the first parameter to +2, the second to +3 and the fourth to +7, then you're triggering a Gmin9 chord. Now use locks on the fourth parameter going to +5 or +8 (meaning you'll go from D to C and then to Eb).

Organ sounds are like chords in itself...with strong frequency components that could match note frequencies, even in a single played note, so you could use the ensemble "notes" to get something similar. Sometimes these notes could be too loud to get just formants but try it anyway; with a bit of lowpass filtering you could soft the higher ones leaveing the fundamental dominate the timbre

FM is another way of get organ sounds because of the ability of this synthesis method to get several harmonics from just 2 oscillators...try exact multiples of modullator/carrier frequencies relationship to get those harmonic regions in the organ, after that you could shape some things with the EQ to get some region low or high



Distortion on the MnM is very crude and digital so maybe it not suited for dub organs, you'll go better with an external analog devise, a tube one ore a modelling thing like the some of the POD models.

Organ patch:

IMPORTANT : FIRST turn OFF the keyboard tracking of both filters.

KIT > ASSIGN > KEY > HPF and LPF has to be in OFF.

then set as follows:

SYNTH > SUPERWAVE ENSEMBLE MACHINE

PITCH 1 = -12
PITCH 2 = 2/3
PITCH 3 = 12
WAVE = 127 (SQUARE)
PW = 29
CHRL = 9
CHRW = 127
TUNE = 0

AMP

A = 0
H = 0
D = 127
R = 0
DIST = -9
VOL = 90
PAN = 0
PORT = 0

FILTER

BASE = 2
WIDTH = 79
HPQ = 84
LPQ = 31
A = 0
D = 0
BOFS = -6
HOFS = 16

FX

EQF = 79
EQG = 11
SRR = 0
DTIM = 2
DSND = -19
DFB = 56
DBSS = 22
DWID = 81

LFO 1

PAGE = PITCH
DEST = 1/12
TRIG = FREE
WAVE = TRI
MULT = 32x
SPEED = 64
INTL = 0
DEPTH = 33

LFO 2

PAGE = AMP
DEST = VOL
TRIG = FREE
WAVE = TRI
MULT = 32x
SPEED = 50
INTL = 0
DEPTH = 12

LFO 3

PAGE = AMP
DEST = PAN
TRIG = FREE
WAVE = TRI
MULT = 16x
SPEED = 64
INTL = 0
DEPTH = 55

Go to octave 6...play step keys 9, 13 and 16 rhythmically, then hold that interval move the whole chord 2 semitones and you'll be transported to bossa territory instantly.

If the sounds too dissonant in some chords you can change the interval of the osc pitch 3 try change the wave, PW, filter width and EQ freq parameters to get another tonalities

Take it as a starting point...it sounds like an organ but of course you can let the mono goes far from it...

in the OSC you can see the different notes who conjure some of the timbric personality of an organ, the other things that helps accentuate it are the resonance peaks of both LPF and HPF; they serve as a FIXED harmonic shaper since the filters doesn't track the keyboard and makes the organ some of the character of a speaker cabinet.

One thing I really like is the spring reverb-like delay...see the short delay time plus a long and filtered feedback

The LFO 1 makes vibrato and the LFO 2 makes tremolo...they both helps to get some of the cheese tones of say, a farfisa organ or something like that. LFO 3 makes auto pan to get some stereo movement like leslie FX (not an exact reproduction but workable)

STRINGS

You can get some nice ensemble/string sounds in with the Superwave-ENS. The biggest difficulty is doing those sounds in mono. Consider putting the Mono in poly mode while you're making those sounds.

Pseudo Karplus Strong synthesis with the FM engine that has feedback. Though that sounds closer to real strings, rather than analogue strings... I'll have a fiddle when I get home to my gear.

MnM STRING-MACHINE-LIKE PATCH:

A somewhat DIGITAL version of the ARP classic string machines like the solina or the omni II of course not at exact replica

VERY IMPORTANT : FIRST turn OFF the keyboard tracking of both filters.

KIT > ASSIGN > KEY > HPF and LPF has to be in OFF.

Then set as follows:

SYNTH > SUPERWAVE ENSEMBLE MACHINE

PITCH 1 = -12
PITCH 2 = +12
PITCH 3 = OFF or add a fifth (+7)...i like it with a fifth
WAVE = 127 (SQUARE)
PW = 63
CHRL = 63 or more
CHRW = 127
TUNE = 0

AMP

A = 44 or more
H = 0
D = 127
R = 63 or more
DIST = 0
VOL = 0
PAN = 0
PORT = 0...or try it

FILTER

BASE = 1
WIDTH = 82
HPQ = 21
LPQ = 15
A = 49
D = 89
BOFS = 0
HOFS = 17

FX

EQF = 42
EQG = -9
SRR = 0
DTIM = 16 or what you want...in 16 sounds more like a spring reverb than delay
DSND = 41
DFB = 50
DBSS = 21
DWID = 76

LFO 1

PAGE = SYNT
DEST = PW
TRIG = FREE
WAVE = TRI
MULT = 1x
SPEED = 8
INTL = 0
DEPTH = 36

LFO 2

PAGE = FILT
DEST = WPTH
TRIG = FREE
WAVE = TRI
MULT = 1x
SPEED = 57
INTL = 0
DEPTH = 2 or 3

LFO 3

PAGE = SYN
DEST = TUN
TRIG = FREE
WAVE = TRI
MULT = 32x
SPEED = 44
INTL = 0
DEPTH = 10

Try it in multi mode from trigger octave 4 and up the low notes sounds closer to the ARP machines, if you can get something "analog" out of the mono.

SOUND DESIGN IDEAS

-How did Autechre make the sounds on Quaristice?

First, I think some of the weird synthy/reverb sounds were derived by turning the delay time on the mono way down (to 1 or 2) and the feedback very high. You can get some weird timbres in this way, and, on the low end, sometimes they sound like some of the stuff off of Quaristice. Also mess with sweeping the delay time; at certain settings you can get some autechery wooshes.

Second, last night I went nuts with the lfos on the mono and noticed that setting one to the retrigger time resulted in some fun stuttering effects, esp. when combined with filtering lfoing on the bbox pitch. I think the multiplier on the lfo also had something to do with it.

Quaristice sounds like it is full of the FM+ machines, also Booth is well documented for his love of FM synthesis.

DRONES

I use the static FM machine with long decays and slow synced LFO's modulating operator levels good for drones.

Drums sounds can be quite abstract given the monophonic nature on the MnM's percussion kits but this does give very original results when used with the arpeggiator and p/locking the retrigger amount. I wish you could load your own kits as that whistle sound really spoils things.



Copy a pattern and then switch off the trigs of the track I want to fade out slowly into the next pattern so it should work during various patterns provided Hold/Dec parameters are set high enough.

This could also be good for creating less subtle walls of sound, especially in combination with setting the delay feedback parameter to a high setting to add another layer.

Make sure not to overlook the trigless trigs on the Mono, perfect for changing the sound without retriggering envelopes (unless you want). i wish the MD had them, but they're a brilliant and idea and really cool function. More obviously slow lfos and slides are good for drone stuff.

Delay, delay, delay... the MnM has a beautiful delay for creating drones, and they definitely drone on through chained patterns, stopped patterns.

Load up a single sound, crank the delay, set some slow lfo's, adjust filter to taste (I like to do extreme filtering with some decent Q to create those little random plucks and things which sound great in the delay and with trigless trigs), play some drones and bliss out; joystick tweaking is especially fun in these moments.

EFFECTS

DELAYS

For some reason the MnM-delay is my favourite of all delays I've tried. Maybe it's because it's so tightly integrated to patch-design and sequencing that I've got better results from it than other delays (vsts mainly). Sometimes I end up with smooth as ever type delays with it.

It would be great to see same functionally with

Theoretically the mono can create two tap delay, with individual panning:

Track 1=source (+ delay can be engaged)

Track 2(tap1) = FX Machine input neighbor, pan L Dsend/time as chosen

Track 3 (tap2)= FX machine input neighbor, pan R Dsend/time as chosen.

.

.

.

Track 6 = FX machine input neighbor...you know the drill.

Delay times work with power of two minus one, $2^N - 1$. For 1/4 note, use 63, 1/8 = 31, 1/16 = 15 etc

Try fiddling around with the LFO sweeping on the depth of the delay or whatever you come up with... dont forget that you can let the 3 LFO's control eachother

Plocking the delay time can be nice



Route some tracks to a reverb machine and use it's delay with various types of locks on different steps

INPUTS:

The monomachine inputs open up many possibilities for external sound processing.

If you are suffering a low level or noise loss make sure you turn off Filtertracking. See the joystick-menu and turn both lpf- and hpf-tracking off.

You can run an external audio signal through the monomachines filter section and the entire env, SRR, dist., etc. block, though you may have to trigger the filter using the sequencer.

Not only can you filter, add delay, use SRR on inputs but you can rhythmically gate the sounds by setting different amount on Hold parameter. Mnm is a killer processing unit - much more extensive than MD when talking input only.



You can use the MNM as a P-locked effects unit, just with the limitation of only 2 inputs.

Applying FX Machines internally:

Once you choose your synth as FX and the type of FX machine, it will automatically set you up as input ~neighbor...this means it's going to apply to the prior track.

Apart from the neighbour option you can route one or various tracks to a bus (e.g. CD i.e. select CD as output when editing kit)) and then setup an FX track with input CD and output that one to AB - thus all tracks routed to bus CD will be effected by the FX track. You can also route a track to AB + CD then you will have the dry signal as well as the effected signal on the output bus. Lots of possibilities, experimenting is key here.

Dont forget to press the steps you want your FX machine to be hear, it's a weird but excellent concept that you have to sequence the trigger for the audio FX too. This opens a vast array of possibilities using the triggers in combination with parameter locks for the steps



The arp is pretty cool on FX tracks too... try it on ring mod.

OUTPUTS

Individual outs make sense if you have external processors in your aux sends/returns or inserts on your mixer. Very interesting and useful once you know you way around multi-fx processors, reverbs, compressors etc.

Using the individual outs, you lose MnM panning. However, you gain the ability to shape individually tracks out of all recognition (should you choose). Plus, as already stated, you also then have the ability to remix the individually captured audio. Overall, if you use the individual outs you gain far more than you lose.

I use the 6 Mono outs constantly as well as the input (mainly processing NL2x).



Don't forget to route your mixers send back into the monos inputs for more onboard processing.

You can also route out to do frequency cuts. After starting to separate outs it was interesting how the percussion sounds actually gained a lot of their output from frequency ranges that I didn't expect them to be in (the kick was in a large part up in the mids, the snares were down in the lows and the hats were in the mid-highs), I've had a lot of fun cutting out the unnecessary frequencies to get more of a separation in the mix. Also told me about how I was programming stuff.

MISCELLANIOUS:

Adjusting Pitch Bend:

- go to the kit menu
- go to assign
- you will find that the Joy R and Joy L are mapped to pitch bend by default for control with an external pitch wheel.
- you can select page and destination for each tab at the top.... including the special "pitch page" and in its destination you should find selections for various ranges of octaves. (i think it goes up to 8 octvs or something)
- also you can play with the ADD / depth parameter.

If i didn't remember this correctly, check out the ASSIGN section of the manual. I'm pretty sure the MnM can do what you want in the assign page.

Joystick calibration:

This is how you calibrate the sfx6 joystick.

1. Power up the unit whilst holding the FUNCTION-button.
2. Choose TEST MODE by pressing the first button of the step sequencer.
3. Calibrate the joystick by holding the two OCTAVE keys located to the far right pressed simultaneously while you move the joystick 360 degrees (you should see a little asterisk appear on the screen). Then you let go of the joystick and make sure the parameters visible on the screen reads "80,80". Then release the two OCTAVE keys. Done.

