

## **M3 XPanded Performance Techniques using SysEx**

By Jerry Kovarsky (newly appointed SysEx Sensei)

Wait a second! Before you go running off, thinking, “What the heck is MIDI SysEx and why would I ever try to use it? I’m a musician, not a computer programmer!” – just hear me out. It’s not that scary – and you can use it to do a lot of really cool things, Best of all, Korg just made it a whole lot easier to use.

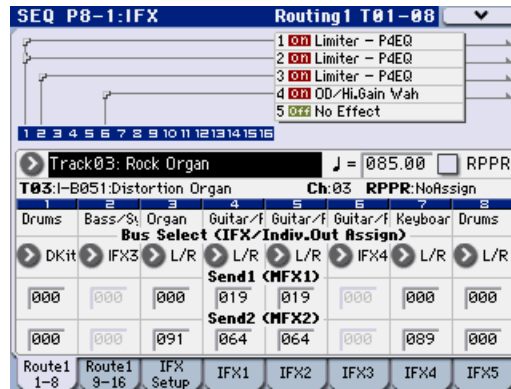
Let me start by clearing up a basic misconception – MIDI System Exclusive (SysEx) is simply another type of MIDI message. Traditional MIDI messages – what are called common messages – relate to general purpose messages that every MIDI instrument uses for the same purpose; this includes things like what note was played and with what velocity, the position of the pedal (up or down), etc. SysEx messages, on the other hand, are simply MIDI messages that can be sent, received, and understood by only one particular model of keyboard – that's what makes them exclusive! So SysEx messages can be used to tweak a sound parameter, re-route an effect, and control all the cool things that motivated you to buy your M3 in the first place!

When using a software editor/librarian program, it is these SysEx messages that are being sent back and forth between the instrument and the computer. Aside from these types of programs, it has been fairly complicated and intimidating to even consider trying to work with these SysEx messages – reading the technical documentation, the MIDI spec of a particular product, etc. To make matters worse, the MIDI spec was developed way back in the early 1980's, so the messages are created in the cumbersome hexadecimal system.

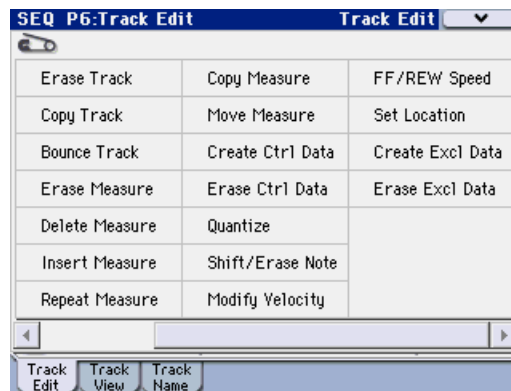
So what's the solution? With the release of Version 2.0 for the M3 – now known as the M3 XPanded – all that has changed. Besides all the great new sounds, sequencer, and interface features, we added a very cool way to work with SysEx. For the first time on a synth, all the computer code and hex messages are gone; the parameters and messages are presented with their normal names and values, just like the regular interface of the M3. This means that anyone can get involved in using these types of messages, because you don’t have to know hexadecimal language, or computer code. We did all that for you. All you need to do is simply pick the parameter you want to control and set a value for it. It’s absolutely brilliant in its simplicity!

So what might you do with this newfound power? A favorite application of mine is to change the FX Bus for a given sound in a Song to vary the mix. I might start out with a cleaner sound, and then during a solo or other section switch it into the Distortion I was using for a guitar part, or route it into the Delay I also had on another synth part. This parameter is found on P8-1 on the Route1 1-8 Tab.

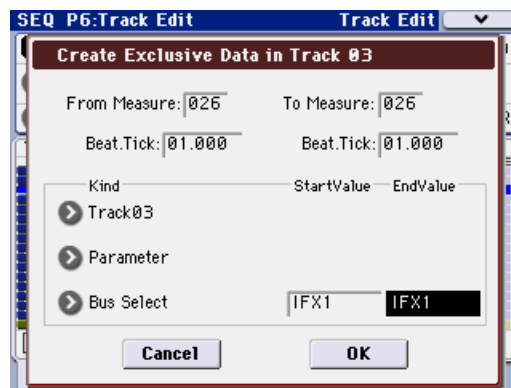
As you can see in the screen below, my organ sound on Track 3 is currently routed into the MFX only, with send values for MFX 1 and MFX2.



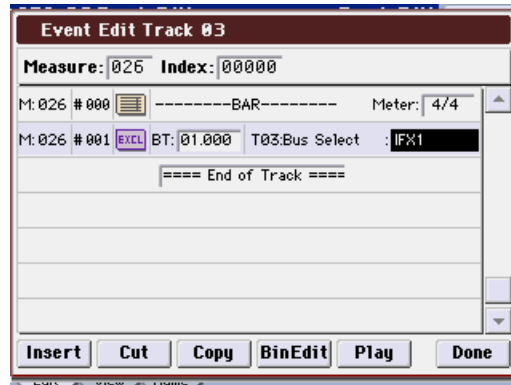
So how do I make the change at the right time? You use the new Track Edit command called “Create Exclusive Data” found on P6 Track Edit, in the upper RH menu – scroll all the way to the right to see the newest commands.



Set the bar you want to add the message in, and set the parameters as shown below. Click OK and the message will be inserted into your sequence at the spot chosen.

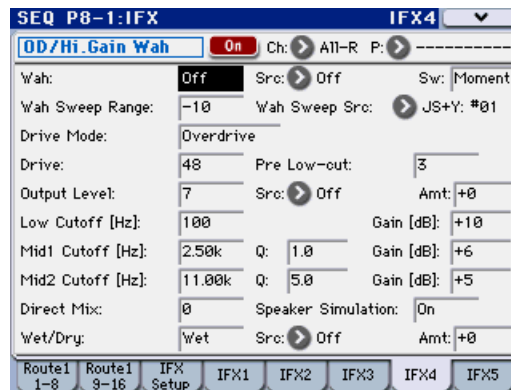


You can even confirm this by going into Event Edit and looking at bar 26 – there’s your message, and you can even edit the value for it, changing the Bus selection as you like.

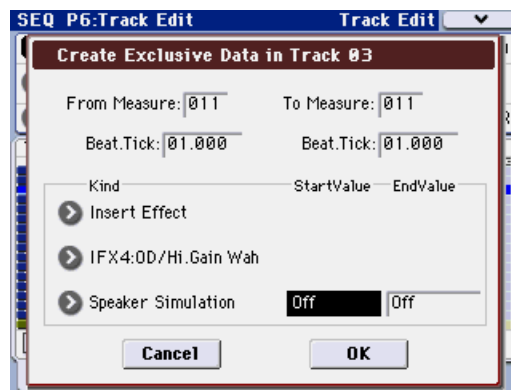


So when you want to reset your part back to MFX at the end of your solo you can just copy this event and Insert it at the bar desired with the value set back to L/R. Easy, right?

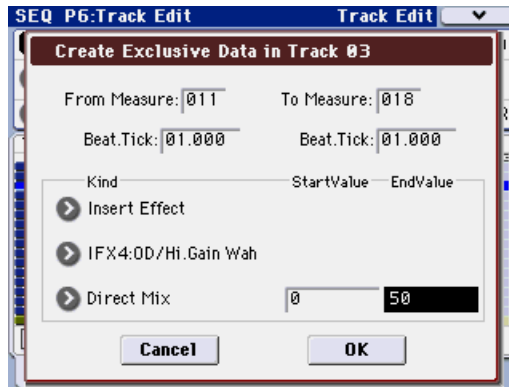
Another favorite of mine is to vary settings of an effect that are not available to be modulated by AMS. In this Overdrive/Hi Gain Wah you previously never had access to turning on and off the Speaker Simulation, or varying the amount of Direct Mix.



But now you can use the Create Exclusive Data command to do just that. See below:



You don't always have to set the From and To Measures to the same location, if you want to create a gradual change to a parameter (like the Direct Mix) try these settings:

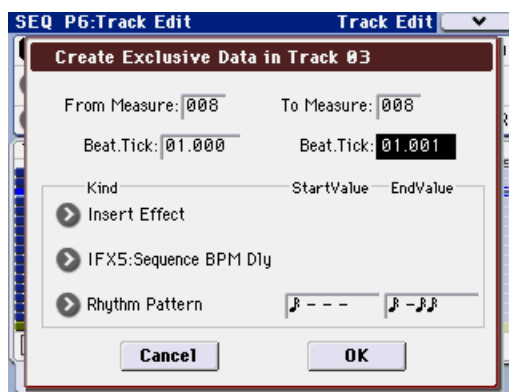


This will produce a gradual change in the Direct Mix over seven bars, from 00 to 50.

Another fun effect to play with is the Sequence BPM Delay.



It has choices for the rhythmic value of the delay, but it remained fixed at the value you chose. Or, it *did* stay fixed, until Version 2.0!



Take some time to explore all the possibilities – the Track Parameters, the EQ, the KARMA settings - that this opens up for you. You have unlimited creative freedom to enhance your arrangements using all the parameters of the M3 XPanded, all presented in regular terms and values.

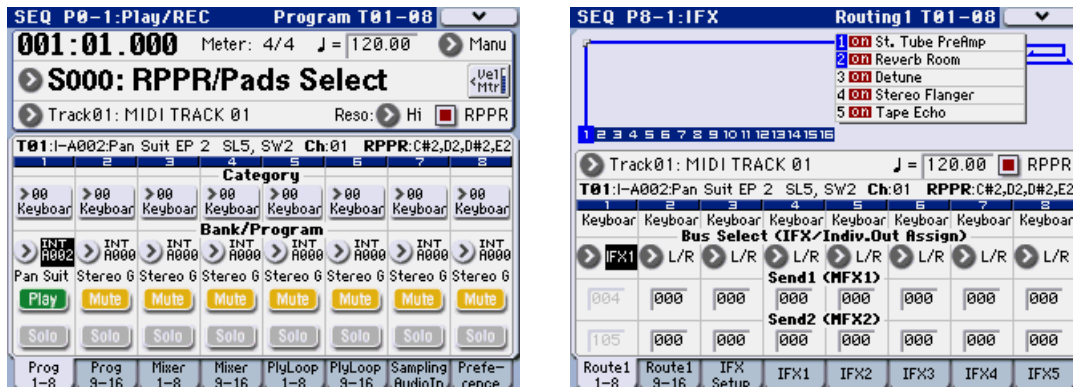
Recently, there was some discussion at Korg Forums about enhancing realtime performance possibilities; being able to change sounds or get more variety out of sounds quickly while playing live. I hinted at ways to use this new MIDI SysEx control in a creative fashion. So let's delve even deeper, into some really fun applications.

The concept is to set up your sounds for playing a Song in the Sequencer Mode, so you can make use of these MIDI SysEx messages. To make it easy we'll copy them into Patterns and assign them – using RPPR (Realtime Pattern Play & Record) – to the Pads. This way, when you are playing live, you don't need to have the Sequencer running, but still can trigger these recorded SysEx events thanks to RPPR.

Note: I'm not going to detail all the steps required here, you should read your Owner's Manual and get familiar how to use the Pattern Edit Mode, how to "Get From Track", and how to assign Patterns to keys via RPPR, as well as how to assign notes to the Pads.

Along with this article we have included a .SNG file that you can load into the sequencer of your M3 XExpanded that includes all of these examples so you can try them out. So take a moment, load the file (called RPPRTRIK.SNG), and then come back to read further. I'll just hang out for a few minutes....

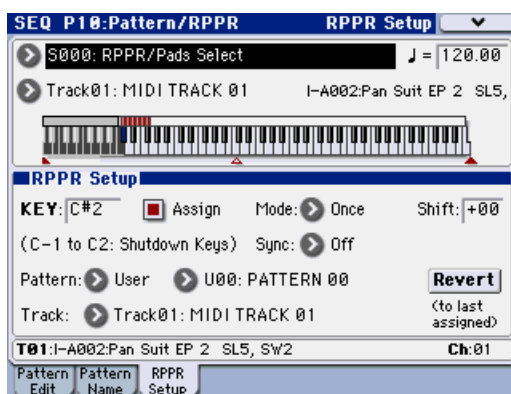
OK, the first Song is called RPPR/Pads Select. What I've done here is to set up an electric piano sound on Track 1, which is routed into IFX1 (Stereo Tube Preamp) and then into IFX2 (Room Reverb).



I created Exclusive Control Data in a Track that will generate a Program Change and an FX Bus change. I then copied that into User Pattern 000. Using RPPR I assigned that to the C#2 key and set Pad 1 to trigger that note. Here's a look at the events that are in the User Pattern 000:

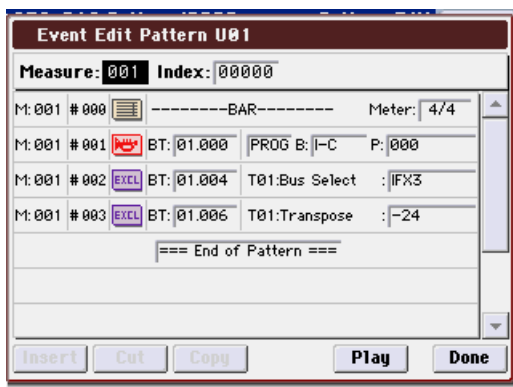


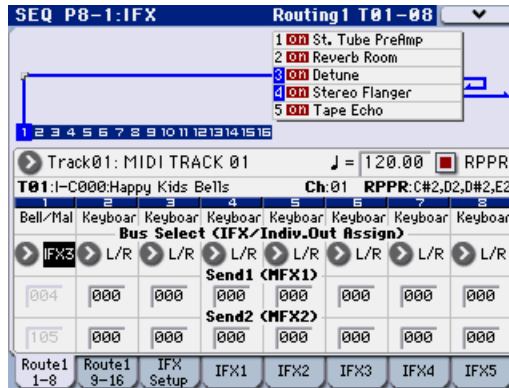
And here's the RPPR Setup:



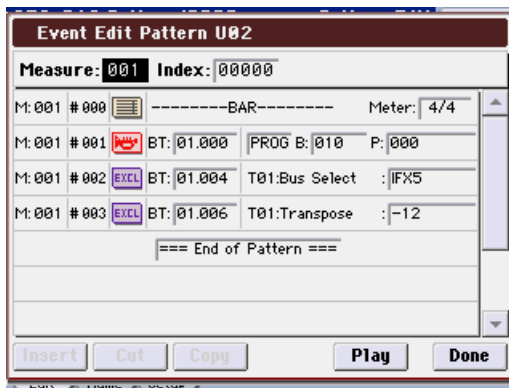
Notice the Pattern is set to play only once, and Sync is Off so it can be freely triggered whenever you want. I even set the Pattern length to only 1 beat of 4/4 time, since I am only sending a few quick messages. This makes it as short and responsive as possible.

Now for the next Pattern I recorded a Program Change and FX bus change to give me a Bell Sound routed through IFX3 (Detune) followed by a Stereo Flanger (IFX4).





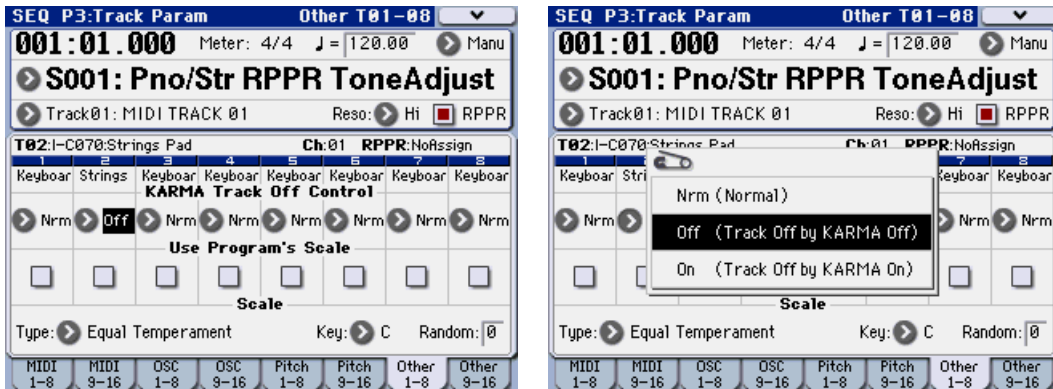
Pad 3 triggers Pattern 002 and switches to a synth sound routed through a Delay.



Getting the concept? I find it easy to use the pads to change sounds quickly, and with each sound routed through a different mix of effects I get a lot of variety in a single setup. Did I forget to have you try Pad 4? You'll get a piano routed through Reverb.

OK, move on to Song 001 – Pno/String RPPR Tone Adjust. This is a setup that presents a piano sound, and adds a layered String by using the little known Timbre On/Off control that occurs when turning KARMA® On and Off. Try it – when you play the keyboard you'll only hear the piano. Now turn On the KARMA button and the strings are added.

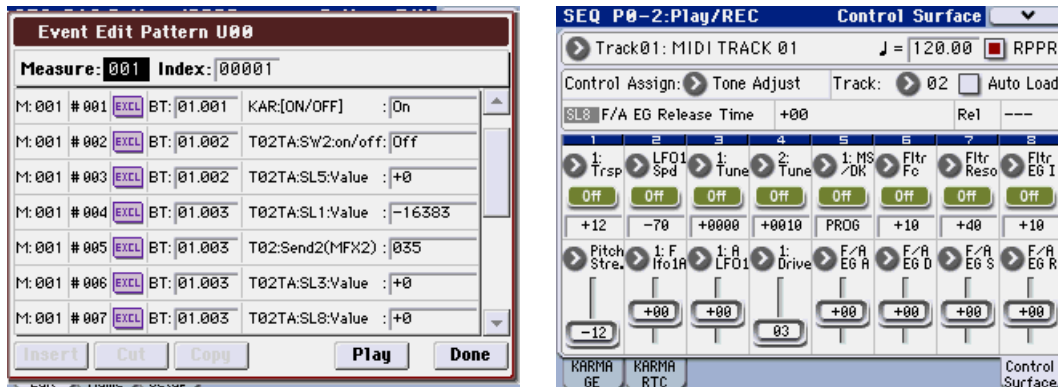
Look at P3 Track Param and the Other 1-8 Tab to see that the Strings on Track 2 are using the KARMA Track Off Control set to “Off – Track Off by KARMA Off”.



Turn KARMA on and the strings are layered; turn it off and they go away. This is cool because you don't waste polyphony when you turn it off, as opposed to turning the volume down, which is still using the polyphony, you just don't hear it. (Note: You need to be sure that KARMA is set so no GE's are running – for this function we aren't trying to generate any phrases/notes, just use this Timbre On/Off function.)

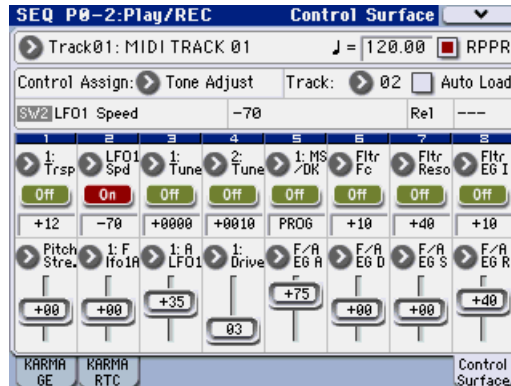
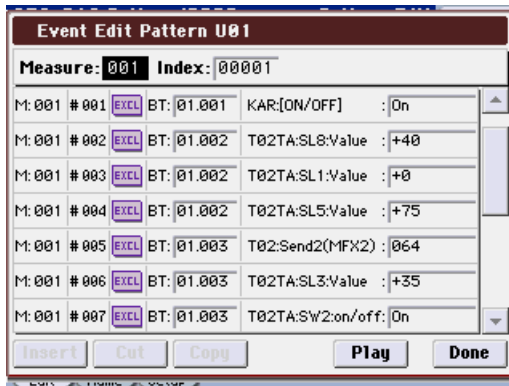
But wait – there's more! The concept here is to then set up Tone Adjust Changes via the Create Exclusive Data command to change the attack and release characteristic of a string pad, going from a more crisp sound to a softer, more synthy sound. The messages were again placed into a Track, copied into individual Patterns, and those patterns were assigned via RPPR to be triggered by keys/pads.

Here's what Pad1 adjusts:

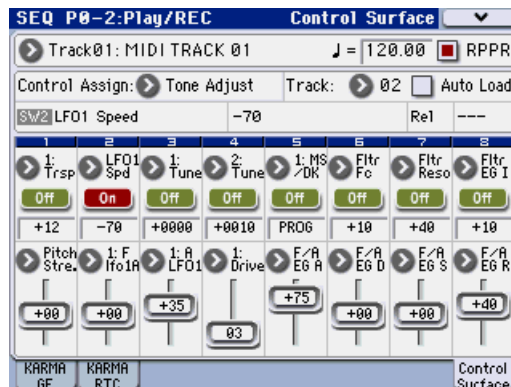
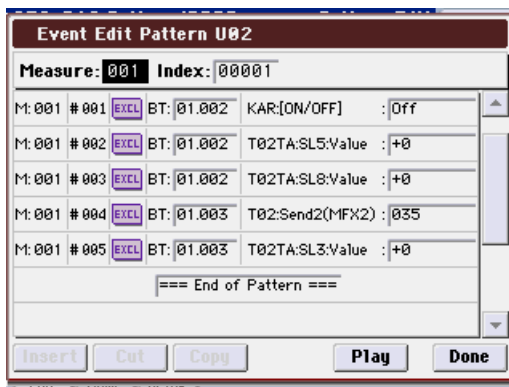


Pressing Pad2 lengthens the Filter and Amp EG Attack and Release, while introducing a subtle LFO movement to the strings as well.





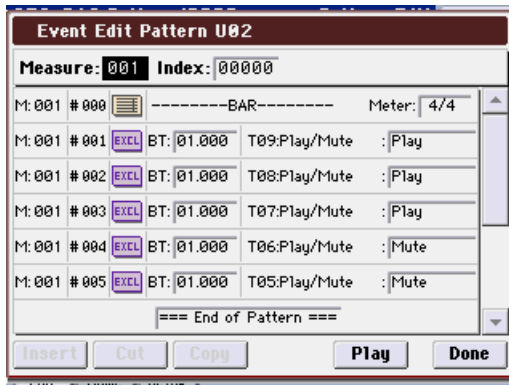
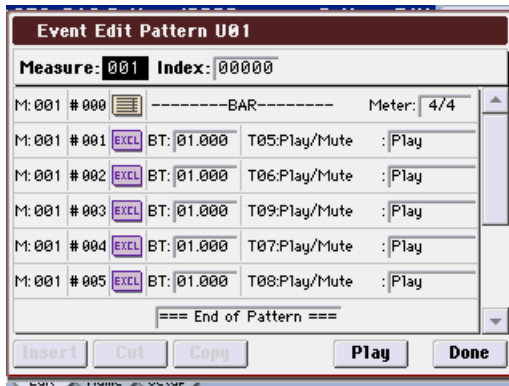
Pressing Pad3 turns off the Strings and returns you to the solo piano – notice how we’re even controlling the KARMA On/Off with a SysEx message.



Also, be sure to always reset any parameter that gets changed for each pattern, so that each change you make always restores the original values for everything that is affected. This way you can play the Pads in any order and always get the right results.

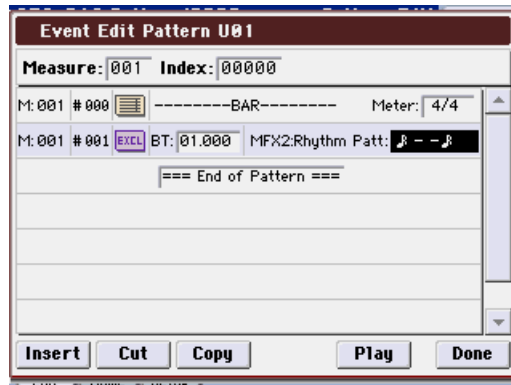
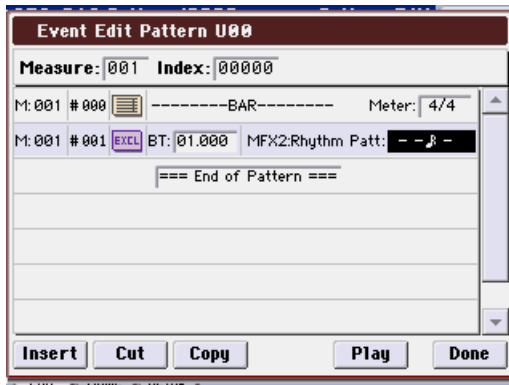
Song 002 takes a completely different direction, showing how you can use SysEx control to do some creative mixing moves while a Song is playing. By recording Track Play/Mute settings and assigning them to pads via RPPR we can create custom Mute groups:

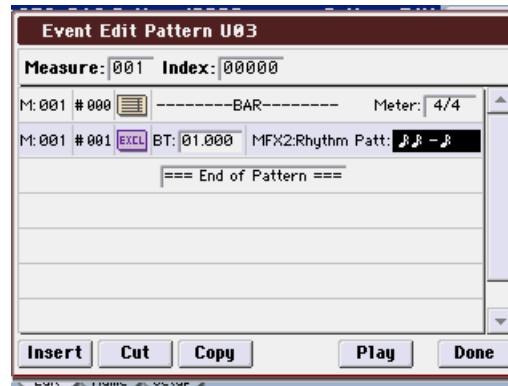




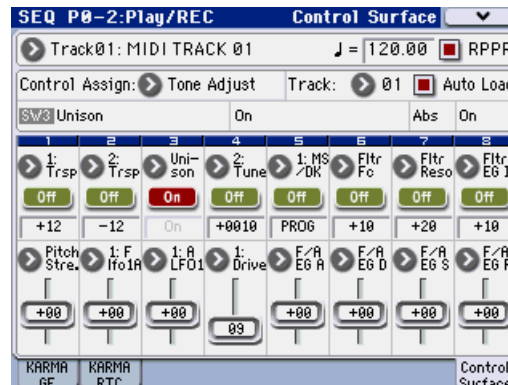
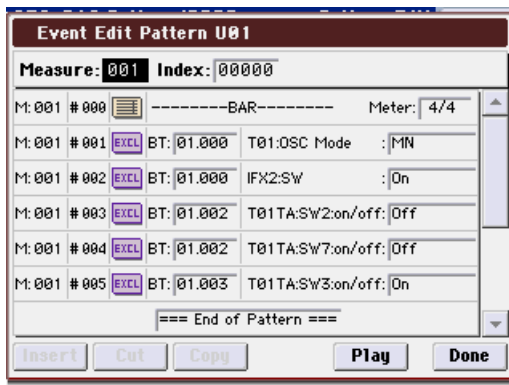
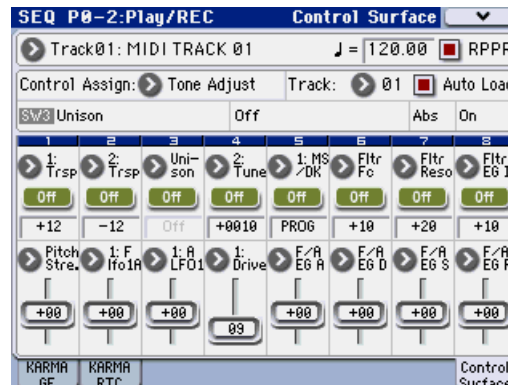
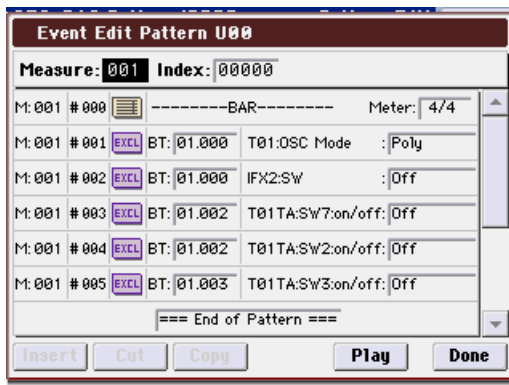
Start this Song playing and play around with pads 1-3 – instant DJ heaven!

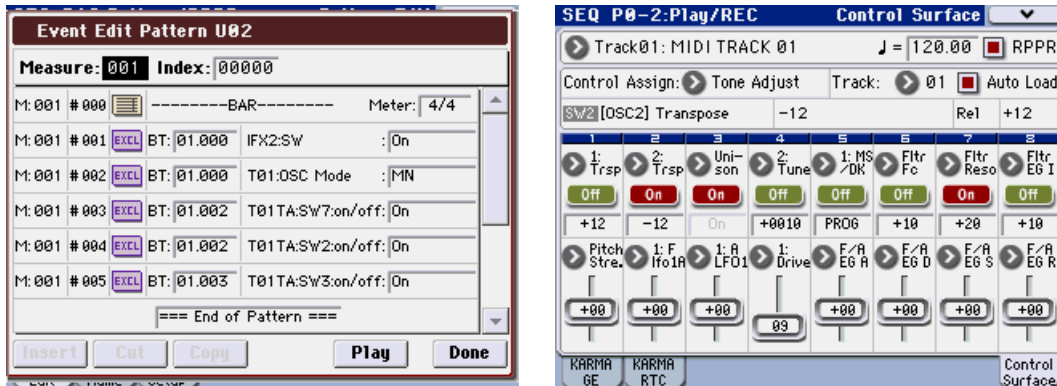
Song 003 is another look at changing the Sequence Delay rhythmic groupings I mentioned earlier, this time assigning the changes to the pads via RPPR. Start the Drum Track and play along on the keyboard, changing the DDL settings using Pads 1-4.





Song 004 uses Tone Adjust changes to vary a Synth Lead patch, going from poly to mono, to deeper resonance and more. Check out what happens on the Tone Adjust Control Surface page as you trigger the pads, and how IFX2 gets turned on and off on Page8.





Song 005 uses MIDI SysEx assigned to the pads to change patterns for the Drum Track – Play live on the keyboard and switch patterns using pads 1-8 – lot’s of fun!



This could have been done by just mapping the existing Patterns to keys using RPPR, but it was an experiment and it’s cool to know it can be done another way.

If you’ve kept up with me all this time I hope you’re beginning to see the creative possibilities of using MIDI SysEx, and having fun with it in real-time thanks to integrating it with RPPR and pad triggering. I am sure that it will open up new ideas for you, and that you’ll have fun exploring this unrealized aspect of the M3 XPanded.

As a final gift for you, select Song006, hold a chord on the keyboard (or use the pads), and try playing the low C#2 through E2. Pretty cool, huh? If you want know more about this trick I’ll see you over at both [Korg Forums](#) and [Karma-Lab Forums](#) and we can discuss it more. Enjoy!!