Pick up machine-like sampling without the bugs, using a Flex machine

The concept :

Because Pick-up machines have some unpredictable behaviour, including :

-automatic tempo adjustment that kicks in when you don't want it, especially when you use pick-up machines while the sequencer is already running. You can't defeat this feature, which is useful for some, and frustrating for others including myself.

-complicated quantizing depending on the length of the master track. Quantized recording is only possible for recordings of a length of 64/128/256/512 steps. Anything in between can, and probably will, result in chaos.

Because the Octatrack can do almost anything, and because sezare56 once committed the following wisdom : « Everything is Possible with Flex », here is a way to do quantized pickup sampling, without automatic tempo adjustments, at ANY length that is a multple of the master track length, without the need to define that length in the setup, using a flex machine and a midi track.

It happens that flex recorders are triggered by the same commands as pickup machines. So sending note #60 to the autchannel will trigger recording of the active track, and the recording will start quantized if QREC is set to PLEN. So far so good. What a flex machine does NOT do, is playing and looping the recorder buffer when the recording stops. It will not quantize the recording end either, unless we define a fixed length beforehand. What we want is pickup behaviour but only the good part of it. Here's where we are going to use a midi track to send some commands to the OT via midi loopback, as well as some conveniently placed trigs.

Requirements :

-1 flex machine pointing to it's recording buffer, on a track with a midi channel assigned (ch 1 in this tutotial)

- 1 midi track with the autochannel assigned (ch 1 in this tutorial)

- ability to set up a midi loopback (either a cable or a midi interface with routing possibilities, I use a iCM4+)

- 1 midicontroller able to layer midi commands (4 layers recommended, I use the Yamaha MFC10)

Settings on the Octatrack's record set-up :

-QREC = PLEN

-RLEN=MAX

-LOOP=ON

Settings for the audio track and pattern scale:

-all default (loop=on) ; pattern scale is default in this example (mastertrack length =64). Midi channel is ch 1 (needed to receive midi messages that might get lost if we're on the midi page and if we used autochannel)

Setting up the audiotrack :

Because we want the recording to play and loop when we stopped dit, we need a trig. This will be a one-shot trig on the 1st step. That's all there is to it. But we need to perform some housekeeping, because we want this one-shot trigger to trig the recording buffer play when we stop the recording, and only at that very moment.This is done using both a midi track and the midi controller to mute, disarm and arm the one-shot trig

Setting up the midi track :

The midi track1 is used to STOP the recording quantized to the pattern length. It sends a Rec-Stop message back to the Octatrack over the midiloop on the autochannel (here : ch 11). Because midi track trigs can't be One-shot, we need a way to make a DIY One-shot which is done by having the track mute itself when it has completed it's task. The triggering of this DIY one-shot is performed with the midi controller (in my case, a MFC10).

I use 2 trigs. I have set the on beat 1 and 3 to leave a little space between the commands

Trig 1 : P-lock CC59 –value 64 (stops the recording) ; P-Lock 112 value 0 (needed for trig3, to be sure it'll fire*)

Trig 3 : P-lock CC59 –value 32 (an unused command) (needed for trig1, to be sure it'll fire*) ; P-Lock 112 value 127 (mutes miditrack 1, it mutes itself so to speak)

(*those extra p-locks are needed because the OT will not send CC data if they are the same as the preceding one so to be safe I make sure there's always a preceding one that's different)

Setting up the midi controller :

Two switches are used, one to start quantized recording, one to stop recording and play the loop. Other functions can be added as usual (track select up and down using two other switches come in mind.)

Commands for switch 1 (function : start quantized recording):

-Ch1 – CC112 – val 127 (mutes midi track1, otherwise it'll send a contradictory stop command))

-Ch11 –CC49 –val 127 (mutes the active audio trackwe are working with) OPTIONAL**

-CH11 – note #60 – (starts combo rec)

-Ch11 – CC52 val 0 : (disarm the one shot trig on the active audio channel)

Commands for switch 2 (function : stop recording quantized to the pattern length by unmuting the midi track so that it can send it's « stop » trig ; unmutes the audio track and arms the one shot trig that'll play the record buffer)

-Ch11 –CC49 –val = 0 (unmutes the audio track) OPTIONAL**

-Ch1 –CC112 – val = 0 (unmutes the midi track)

-Ch11 – CC52 val = 127 (arm the one shot trig on the active audio channel)

**OPTIONAL : it's not basically necessary, and prevents you from doing overdubs. But if overdubs don't matter or you use a second track for that, then it can be useful to use this switch. For instance if you have recorded 12 bars of material, and after a while you like to record new material from the 6th bar on and you don't mute the audio track when starting the new part, the last 6 bars out of the previous 12 are still playing and you wouldn't want that.

So how does it work :

Start the sequencer, and start jamming along with the groove. **Hit switch 1**, Recording starts, some housekeeping is done like making sure the one shot is in a disarmed state, and that the midi track that will command « stop record » is muted. Play as long a s you like, and **hit switch2** when you're ready. This will unmute the midi track and arm the one-shot play trig on the audio track. At the end of the current pattern, the midi track will send the stop command and the one shot play trig will fire the recording buffer. **Voilà, a perfect flex looper !**

This might seem a bit complicated to set up but once it's done it's a breeze, the biggest part of it is setting up the pedal board or whatever midi controller you have but you do that only once.

Otherwise it's just 1 audio trig and 2 midi trigs with 4 p-locks.

Flexes don't do overdubs, but then again using SRC3 and record the Cue output combined with A/B or C/D inputs you can manage to do that too. You can even set-up a 3rd switch to trigger overdubbing using the available cue track midi commands and conveniently set-up SRC3 to record the cue mix (see the midi implementation chart in the manual)

Hope this helps some of you,

Have fun !

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