Emulating Supersteps

The Superstep feature found on the Latronic Notron sequencer offers unique and desirable functionality and has been long time unmatched. This tutorial shows how Octopus can emulate and further expand on it!

This document is based on a user report originally posted on our internet forum. Therefore it is written in the first person, describing the user's practical experience with regard to emulating Notron Supersteps on the Octopus.

Can it be done?

The short answer is yes, you can do it and fool anyone into thinking you have a Notron running with Supersteps.

Test conditions

- I limited my test to sending CC #7 since that's very obvious to hear and pretty much every synth responds to that.
- Test synth: Alesis Ion.
- I used a Notron to generate the note on and the CC #7 values.
- The shape was a simple repeating triangle wave.
- I used the Octopus to record and then play back the info.
- A MIDI patch-bay and a PC running MIDI-Ox completed the setup.

Both the Notron and the Octopus were set to 120 BPM.

Notron was set to a single 16 step element with a single note on at step 1 and the note length set to keep the note sounding for approximately 15.5 steps (just enough to get the note off before the element looped).

Good info to know for hardcore emulation - the Notron changes the CC resolution based on the tempo. Running at 120 BPM and having almost a 16 step note on yielded about 60 CC events. So I decided to record into the Octopus for 4 tracks (64 steps) of CC data.

Octopus setup

- Chain mode 3 (2 sequences of 4 tracks).
- Set Rows 6,7,8,9 to x4 speed.
- Select track 9 for recording (automatically enables tracks 6, 7, and 8).
- Start Octopus recording of CC data.
- Stop after one complete pass.

- Delete any note ON's recorded in tracks 6,7,8,9.
- Turn step 1 of track 5 on and set the pitch to whatever you want.

For now, set the note length of that step to 1 less than 'sustain'. Set the length of tracks 2, 3, 4 to 0 (basically skipping them).

Press play and you now have basically an exact duplicate of the Notron sending MIDI CC #7 Supersteps.

Variations on this theme

- Reduce the note length on step 1 and add more notes in track 5 with varying lengths. Nice!
- Shorten tracks 6,7,8,9 to get a different variation. Nice!
- Un-zero track 4 and add notes there. Nice!

More caveats

Changing the MIDI CC should be easy (edit the CC value for each of track 9, 8, 7, 6). Also, changing the shape requires re-editing the CC map data.

For slower tempos, you might be able to get away with x2 recording speed (or use x4 for more resolution).

Either way, you're playing on the fact that the target synth can only respond so fast and therefore any minute differences between the Notron data and your Octopus data will be minimized.

The bottom line

At first I thought this was only going to be an academic exercise, but it turned into a useful technique leveraging the unique strengths of the Octopus. So far I haven't even tried using other speeds on the controller tracks; it's been fun using x4.

Since there is a range of speed multipliers and you have control over the length (amount) of controller data, there is a lot of flexibility in this approach that should give you cool results at any tempo or note length.

Probably to minimize the amount of rework, you could record a full 1x8 (128 steps) of controller data and then adjust the note length, speed multiplier, and controller chain length to get a variety of effects from the original CC data.

The fact that the Octopus lets you record/create a block of modulation data and allows separate speed control over it opens up a new avenue of note and controller interaction.

Enjoy!