Editing track directions

Besides offering a state-of-the art set of track run directions, Octopus allows direction editing by the user. Here we introduce this unique feature hands-on.

Diving right in, let's start with an empty page. Select an empty page and zoom into a track (use track 9 for this example).

Getting prepared

- Use the DIR edit knob to select direction 6.
- Double click on the DIR Selector button.
- While the below may be carried out with the sequencer running or stopped, we recommend you stop the sequencer to minimize distractions while editing.

You should see a flashing DIR SEL light, a flashing LED in row 0 (indicating the time slice or position to be edited), and a solid orange LED in step 0 (the direction map you are editing – 6 in this example).

Step double-play

Let's start with a simple variation - have steps 1, 5, 9, and 13 play twice.

- Select slice 1 in row 0. The red LED in position 1 of row 1 indicates that when the first position is played, step 1 triggers.
- We want step 1 to trigger twice, so toggle position 1 of row 2 on.
- Make sure the LEDs in all other rows are off.
- Now click on button 5 of row 0. You should see a similar situation - position 5 of row 1 is on - toggle position 5 of row 2.

Repeat for steps 9 and 13. Slow the tempo way down and start the sequencer - you should see it 'pause' on steps 1, 5, 9, and 13. It is actually playing these steps twice.

You can exit out to Page mode, activate some steps on Track 9 (including steps 1, 5, 9, and 13), and listen as it plays.

Since you added 4 step triggers (doubling steps 1, 5, 9, 13), at the end of 1 pass, that track will be 4 steps behind the rest of the sequence (i.e. - when it cycles back to position 1, the rest of the tracks will be on position 5). This is either good or bad, depending on what you wanted to do.

One way around this is to mute steps 14, 15, 16 and set step 13 to only a single trigger to get back to 16 steps per cycle.

If you know you're going to truncate the sequence, you don't have to program stuff in the steps you'll be muting.

If this is part of a larger chain of tracks, you can always mute steps in the other parts of the chain to get back to a multiple of 16.

Since you are modifying the directions steps play in, you cannot create a sequence of less than 16 triggers using the direction editor. You will need to use mute/skip steps to reduce the number played on each slice.

Double-play variation

- Go back into direction editing for direction 6 on track 9.
- Edit slices 5 and 9 and toggle off the red LEDs in rows 1 and 2.
- Watch as the chase-light jumps around whenever it hits steps 5 and 9. Since no LEDs are on in any rows for steps 5 and 9, Octopus picks a random step to go to next.

Playing tracks inside out

The next example is more involved. The goal is to play the track from inside out.

- Stop the sequencer
- Clear the extra toggles from positions 1, 5, 9, and 13.
- Press button 1 of row 0. The plan is to have the sequence start from the middle (position 8) and alternate sides moving towards the end positions (1 and 16). After reaching the ends, it will reverse and go back to the middle. Remember - row 0 is the index for which positions(s) to trigger at each slice of time.
- So, for slice 1, toggle position 8 in row 1 and position 9 in row 2. This means when the sequence starts, it will play step 8 then step 9.
- Press button 2 in row 0. Toggle position 7 in row 1 and position 10 in row 2. Continuing:

  Button 3, position 6 in row 1, 11 in row 2;

  Button 4, position 5 in row 1, 12 in row 2;

  Button 5, position 4 in row 1, 13 in row 2;

  Button 6, position 3 in row 1, 14 in row 2;

  Button 7, position 2 in row 1, 15 in row 2;

  Button 8, position 1 in row 1, 16 in row 2;

  Button 9, position 1 in row 1, 16 in row 2;

  Button 10, position 2 in row 1, 15 in row 2;

  Button 11, position 3 in row 1, 14 in row 2;

Button 12, position 4 in row 1, 13 in row 2;

Button 13, position 5 in row 1, 12 in row 2;

Button 14, position 6 in row 1, 11 in row 2;

Button 15, position 7 in row 1, 10 in row 2;

Button 16, position 8 in row 1, 9 in row 2.

- Exit out to Page mode.
- Select the default track chain of 10 separate tracks (XXIX). Press Play and adjust the tempo to see the effect.

If you keyed it in correctly, you should see the chase-light for track 9 start in the middle, bounce to the end and then go back to the middle again.

For an even more striking effect, edit the direction for all 10 tracks to use direction 6 and crank the tempo to the maximum.

While you're here, try other track chains. XXX and XXXI in particular play out nicely with this pattern.

Random step selection

One other thing to mention about steps – if no position is toggled in any row, the trigger for that time slice will be selected randomly by Octopus.

In a sequence, if you have a random step, Octopus will play normally until it hits that step. At that point, it will jump to some other position for the duration of that step.

Certainty_next

Now let's play with certainty_next.

- Go to track mode
- Select direction map 7.
- Click on button 1 of row 0 if that's not selected. Notice in the outer circle, where tempo normally is located, the 100 position is lit. This indicates a certainty that the next step will be step 2 of 100%.
- Set each slice's certainty_next to 0 by selecting it in row 0 and then double clicking on 100.
- Press play - notice that the sequence is now playing backwards. (16, 15, 14...1).

To prepare for the next example, either reset the certainty_next value back to 100 (single click on 100) or use a different direction pattern (for example, 8).

Brownian motion

If certainty_next is not 100 or 0, Octopus will decide whether to play the next step or the previous step based on the percentage set for that step.

If certainty_next is 90, then approximately 90% of the time Octopus will play the next step and 10% of the time it will play the previous step. This is how the Brownian motion preset direction is created.

Track single trigger

The next few hints and tricks also involve certainty_next.

If you put a step with a certainty_next set to 0 in the middle of other steps with certainty_next set to values above 0, the track will get stuck at that point. This may be what you want sometimes.

For example, using direction 7 with all slices set to 100% certainty_next, change slice 9 to have certainty_next set to 0.

Exit to Play mode and start the sequence running. As soon as step 8 is completed, it will play step 9. Step 9 says to always go back to the previous step (step 8). So after step 9, it plays step 8, then 9, then 8, and repeats this forever. This leads to a couple of interesting ideas.

Infinite loop and back

You can create a random sequence with just 2 slices.

Set slice 1 to be random (no rows toggled on). On slice 2 toggle position 1 in row 1 on and set certainty_next to 0%. Now when the sequence plays, it will keep selecting random positions.

You can use either the infinite loop from above or the randomization in a live setting by muting the 'special' steps and then un-muting them when you need the special effect.

If you get tired of the infinite loop, you can just mute the steps again.