LARRY THE O

Rinse & Repeat

There's plenty you can do in Studio One to stop loop-based music being repetitive and dull.

Music just can't sit still. Even if you're working with repeating elements such as MIDI or audio loops, development of some sort is necessary to capture and keep listeners' interest. There are many ways of introducing variety when working with loops and samples, from switching between loops to triggering samples in real time on top of a bed. This month, I'm going to show you a real-time performance system that uses a few different methods of generating musical possibility.

Two of these methods make use of Impact, Studio One's bundled software drum machine. Drum machines are basically sample-playback engines, but they often include interesting triggering capabilities that can be fertile ground for creating variety.

Trigger Happy

Samples are triggered within Impact by clicking on pads. Up to six samples can be stacked on each pad, and there are several triggering options. Studio One's drag-and-drop capabilities make it easy to create a stack: simply drag a sample from Studio One's Browser onto a pad, then Shift-drag each of the other samples you want stacked and drop them on the pad. As shown in Screen 1, multiple samples stacked on a pad are indicated by a row of boxes at the top of the Impact window, below the pad name and above the sample waveform display. The number of boxes shows the number of stacked samples, and clicking a box selects one of the samples.

The most obvious way of using stacked samples is velocity switching. To do this with Impact, tap a pad to select it and set its Layer Mode to Velocity. In this mode, the velocity of a strike on a pad or keyboard controller determines which sample is played. This typically is used to play samples stacked so the sounds correspond appropriately to the velocity: low velocities play soft strike sounds, and high velocities play clobbering strike sounds. Note that samples cannot be rearranged to different velocity zones once they are assigned to a pad, so drop them on the Impact pad in order from softest to loudest.

This works well, but can be taken further. The simplest way to enhance them is by exaggerating the sounds. For instance, to velocity switch between tom hits at different dynamic levels, instead of having direct strikes on the drum at all of the levels, you could have the lowest-level sample be a soft mallet hit, while the highest level might be a flam hit with sticks. This produces wider variation in texture from softest to loudest hits.

Another possibility is to use entirely different sounds for each of the velocity-switched samples. With this approach, mapping samples into a useful playing arrangement becomes the most critical consideration. Hits with very low velocity values, say 0 to 32, rarely occur in most playing situations, so setting 32 as the first velocity threshold is likely to mean that sound will rarely, if ever, be played. Make the lowest velocity zone large and the highest zone small for more even frequency of triggering: for example, set the velocity levels of the zones as 0 to 63, 64 to 90, 91 to 117 and 118 to 127.

The sample stack on a pad can also be treated as a pool of sounds, rather than a stack. When a pad's Layer Mode is set to Round Robin, each successive strike plays the next sample in the stack, rotating continually through the stack. It can be fun for the samples to be entirely different sounds, but I find it most useful when the samples are variations on a sound, albeit with significant differences between them. A series of strikes on different metal objects, for instance, gives you the unifying aspect of all of the samples

Screen 1: Up to six samples can be put on each pad in Impact. Velocity zones can be edited, though there is no text readout of the exact velocity values. Layer Mode and Play Mode are crucial settings.