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10 essential uses for automation

To preserve all the finely honed nuances of your mix, you'll need to make good use of your sequencer's automation features

One of the greatest leaps forward with the advent of digital audio workstations was the sudden ease with which you could apply all manner of real-time controls. Just about every parameter you might want to tweak within your sequencer (and all the plug-ins contained within it) could now easily be controlled with what used to be called Continuous Control (CC) data. Things were changing much for the better!

These days it's called automation, rather than CC data, and unlike the old days, you don't have to spend ages setting it up, naming it and worrying about how many spare assignable parameters you have left. Nope, you simply set your sequencer to receive and record automation controls and start tweaking, or you select the desired parameter from a menu and then draw it right onto your arrangement. It is then displayed (usually alongside the track's

parts, but sometimes in its own channel) on your arrangement page so you can see exactly what's happening.

Since almost all the uses for automation relate to mixing duties, we thought it would be a good idea to share ten of the best in this **cm Special**. So here are our top tips for getting the hang of automation: some you might use already, some you might not even have thought of, but we assure you that all are extremely useful...

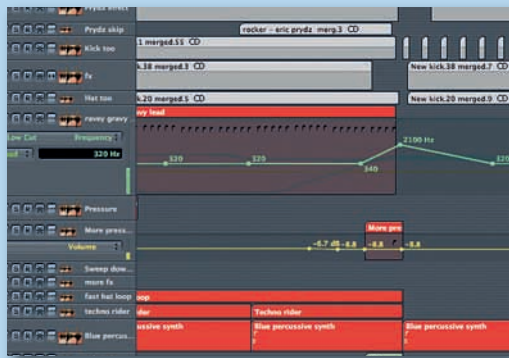


Add emphasis

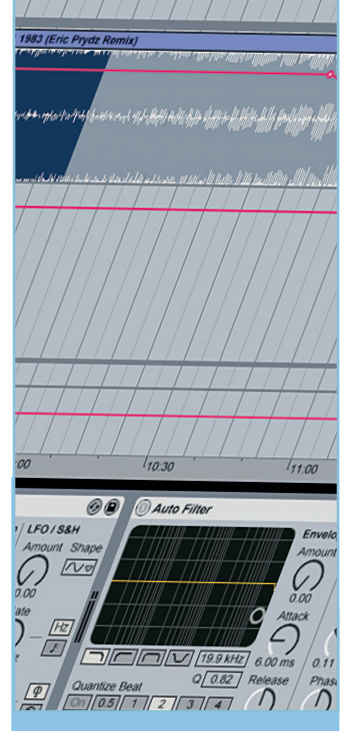
As your track plays through, you'll find that some parts have more going on than others, and this can, quite obviously, affect the balance of them. Choruses in particular tend to have lots more parts thrown in, and these tend to be busier elements. The result is that the vocals (for example) can often appear quieter all of a sudden, at exactly the moment they should be louder and more energetic.

But fear not: with a simple automation command, the level of your vocals can miraculously jump up at the choruses – just remember to lower the level later. And this trick works on a variety of different elements, of course – other prime candidates are cymbal crashes or sound effects on dance tracks. During minimal intros these can seem too loud, and then they can disappear during the main body of the track.

Filter sweep



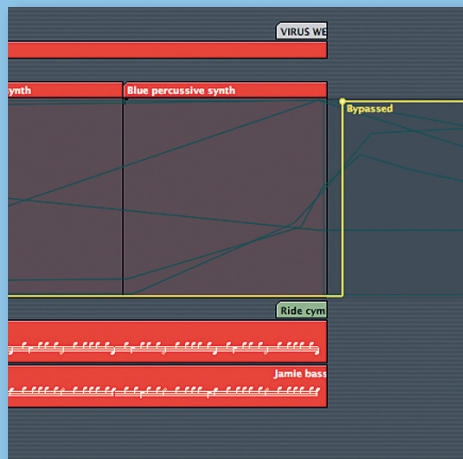
» If there's one dance track cliché that's here to stay, it's the ubiquitous filter sweep. In the old days this was a convoluted business – usually involving assigning your filter's cutoff to the modulation wheel or some other available CC controller. Now, with almost all filtering done in the digital domain, it's simply a case of choosing your filter's cutoff parameter (and perhaps resonance too) and drawing its movement in. Alternatively, you can set your automation to record and tweak it manually, using the onscreen GUI or some kind of controller. Either way, you're only ever two simple steps from perfect (and editable) epic filter sweeps!



Use effects selectively

» The cooler and more creative your effects, the more noticeable they are, which leads us to that tried and tested maxim: less is more. If you've employed a funky delay, phasing effect or other weird and wacky processing plug-in to emphasise a certain part of your track (adding effects to certain words of a vocal, or phasing to a breakdown, for example) then you'll need a handy way to switch those effects on and off.

Fortunately almost all plug-ins you'll encounter offer at least a wet/dry balance automation parameter with which to apply or remove them, and most will have a bypass parameter too, making things even easier. Imagine when we had to do all that by hand, and live as the track bounced down!



Fade-outs

» A staggering number of tracks finish with a fade-out. Nobody's quite sure why – it doesn't even sound that good for the most part (apart from the occasional imaginative and evolving gem like *Strawberry Fields Forever*). Between us and ourselves (so, top secret then) we reckon it's largely because people are either too lazy to think of something more interesting, or because it's hard to coordinate a good ending unless your band are actually playing and being recorded simultaneously. Nevertheless, fade-outs remain as popular today as they were 50 years ago, and automation can again come in rather handy – either applied to each element or to the master output.

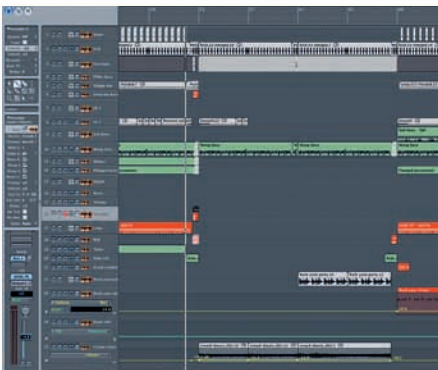
Overpowering delays

» One of the things about delays and reverb is that they can be a bit overpowering. It's all too easy for them to swamp the cleanest mix if you turn them up too loud and allow them to carry on for too long. However, every

now and then you may actually want them to carry on much longer and louder, such as at the start of a breakdown or the end of a track. Once again, automation offers its highly valued services, allowing you to whack up the

reverb time, delay feedback and wet signal level, making an otherwise polite and modest delay/reverb effect spin out progressively over eight bars or more. Let's have a look at this one in action (see below)...

STEP BY STEP Spinning out delays



1 Here we see a track with a big drop-out, which sounds very empty when it first happens. There is a delay, but it trails off almost immediately, leaving the track a bit dry. »



2 The first thing we do is use automation to increase the feedback amount on the delay, generating many more subsequent delays – but the volume is still too quiet... »



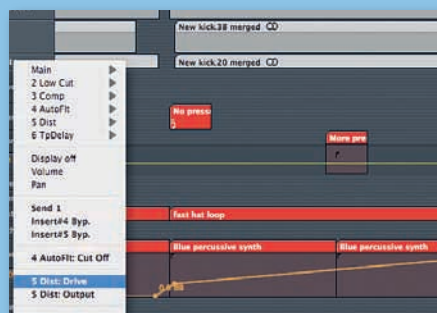
3 To fix this, we raise the wet signal level, smoothing over the transition and filling the gap. Once the delays have died down, we reset both the feedback and wet signal levels. »

The right start

Another great use for automation is ensuring that everything is set to the right settings and presets, right from the start. This includes any MIDI-enabled hardware you might have incorporated into your project. The pros would always tell you to do this in the old days (before total recall, it was even handier to have the arrangement file trigger all your hardware to call up the right presets), but we very rarely did it as it was such a bloody nightmare to organise. These days, though, it means that if you have tweaked any parameters throughout your track, it becomes far easier to make sure the settings are reset and correct from the outset, as every parameter is displayed onscreen, making any mistakes or changes immediately obvious.

Adding excitement

We've already discussed applying real-time processing parameter changes for practical reasons, but another fantastic use is simply to add some dynamic variation and excitement to your tracks. For example, inserting an EQ into a track, applying some mid-range boost with a moderate Q and then using automation to sweep the central frequency quickly up and down can make a world of difference to your track. Dance music in particular benefits from these types of exciting automation controls, as it's often based around a simple, repeating groove. The right subtle tweaks can be the difference between boredom in 32 bars to enduring excitement after 200 bars!



Getting a live feel

We've already established that before automation we had the slightly less versatile and fancy continuous controllers, and included amongst these were pitchbend, sustain and modulation. Well, in the same way as you can still record these details to MIDI parts, you can now easily use automation to capture every single nuance of a live performance – right down to all the individual tweaks of a soft synth. You can then go back and edit every little detail to perfection. Just be sure you don't squeeze the life out of it by making things overly clinical.

Panning

There are any number of reasons you might want to apply real-time control of panning. We won't list them all here, but they can range from outright creativity to mix balancing of live stereo sources. Either way, automation will once again come to the rescue. And if you really want to confuse listeners on a very subtle level, try reversing all your panning settings during choruses, or even every verse. Unless you've got loads of things whacked to 63 in either direction, most listeners will sense a difference but not be able to put their finger on exactly what it is!

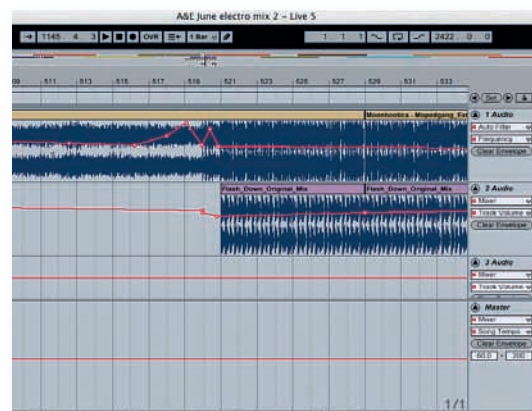
Copying parts

Having got really lucky with a particularly tricky piece of MIDI-controlled inspiration, or perhaps drawing in the best real-time effects automation data of all time, it would be a shame

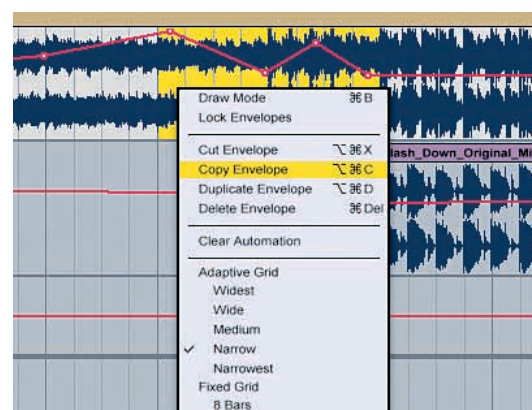
to leave it at that. Let's turn to good old automation again. Most sequencers enable you to move the real-time controls along with any parts you're copying, and most will also allow you to

copy just the automation data for use elsewhere in the project (or even as part of other projects). As a parting gift, let's have a look at how we might do this in Ableton Live 5 (above). [cm](#)

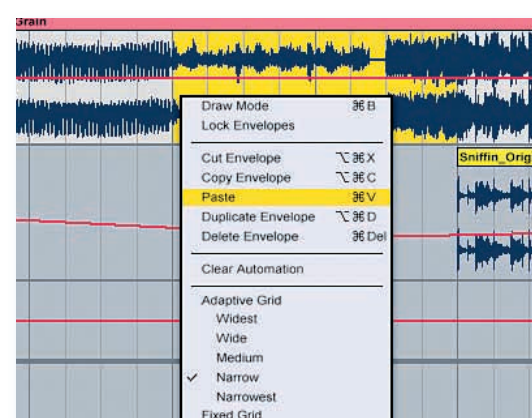
STEP BY STEP Copying parts



1 Start by finding the bit of automation you really like – here we have a nice filter sweep applied to add a flourish to the end of a breakdown. >>



2 Highlight the section you've decided that you want to reproduce and then right-click on it and select **Copy envelope**. >>



3 Now highlight the section you want to copy the automation to, right-click and select **Paste Envelope**.