

MIDI For All Occasions



Get to grips with the powerful MIDI editors in Cubase, and you'll wonder how you ever coped without them

Cubase started life as a MIDI-only recording system, with the audio and subsequent VST technology being bolted on to the main core of the program in more recent years. As a result of this legacy, Cubase offers many ways of viewing and manipulating MIDI data - quite a few of which are completely overlooked and ignored by most users.

But even in today's world of audio-plus-MIDI workstations, none of these powerful editors have become redundant, even though many new programs are steering away from high levels of MIDI manipulation altogether, favouring an audio-only editing approach. If you're already familiar with some of the more powerful editors, then chances are you can't live without them. For benefit of those yet to be initiated into the joys of MIDI, Cubase-style, let's take a look...

Getting parts into the editors

Opening a part in an editor is simply a case of double-clicking on it, or selecting the desired editor from the Edit menu. You can also open multiple parts within an editor, either from the same track or across multiple tracks. To do this, select the parts you wish to edit, and then select the desired editor from the Edit menu. Voila! And if you want to view the entire contents of a track in an editor, simply select the desired track in the track list, ensuring no parts are already selected, and select the required editor.

All of Cubase's 'normal' editors - Key, Drum, Grid/List and Score, for instance - have much in common: at the top of each of these windows is the function bar. Some of the controls here are self-explanatory, such as Edit Solo, which, unsurprisingly, 'solos' the material selected within the editor.

When you enter more than one part in the selected editor at the same time, only one part is actually active and ready to be edited; the others are greyed out. To activate one of the other parts, just click on an event within that part. If, on the other hand, one of the parts you have opened in the editor is blank, you'll need to use the Goto sub-menu to activate that part.

The sub-menus

The 'To' sub-menu is used to specify which events you want to process with operations from the Function menu. Most of the options here are self-explanatory; the difference between looped and cycled events can be a tad confusing, however. (To briefly clarify: cycled events are those positioned between the locators when the cycle button in the transport is 'lit'; looped events are contained within the editor's own loop limits.)

The 'Do' sub-menu works in close conjunction with the 'To' sub-menu and offers a selection of options for doodling around with your MIDI data, including Fixed Note (sets all pitch values to the currently selected note); Delete Note (removes all instances of the selected note); Keep Note (deletes all notes except for all instances of the selected note); Repeat (repeats events that are contained within a loop or a cycle to the end of the selected part); Fill (fills the looped or cycled area with instances of the last note played); Reverse (flips events around an imaginary centre line); and Delete (deletes notes within the limits set by the 'To' sub-menu).

Describing each and every variant here would be terribly dull. So why not turn to your computer screens instead? The best way to get to grips with the ways in which these 'To' and 'Do' sub-menus can interact with each other is to play around with them.

Two other elements that work closely together are the Snap and Quant (quantise) settings. Snap governs the spacing between beats to which any edits or adjustments will automatically 'snap' or lock on to.

If, say, having selected a snap setting of 16, you were to re-size an event, then you would only be able to re-size that event to within 1/16 of a beat. The Quant setting, meanwhile, is used to govern the length of any inputted notes - and the master quantisation resolution, obviously.

There are shortcuts to allow you to swiftly change the Snap and Quant settings as a pair: number keys 1 through

to 7 - the ones at the top of the QWERTY keyboard - change the resolution; the 't' key switches them to triplets, and the full stop changes them to dotted note values.

Loops

It is possible to create loops within the normal editors. To define a loop, you can either enter its values in the appropriate boxes, or click and drag an area in the timeline. While in standard playback mode, the looped area within an editor will repeatedly loop as the rest of your song continues to play in a linear fashion.

When cycle mode is simultaneously activated during playback, the looped area within an editor will again repeatedly loop, as previously described; so will the rest of your song, in effect, by continuously 'cycling' between the selected locators - for example, between bar 16 and 48, then back to bar 16 through to 48 again, ad infinitum - irrespective of the looped area.

The switch icons

To the left of all the normal editor screens is a set of icons. These act as switches and can be toggled on and off as desired. Here's a description of each one:

Loop

This button activates and deactivates the editor's loop mode.

Info

This switches the info line on and off. When an event in the editor is selected its parameters are displayed and can be edited in this bar.

MIDI

This sets whether the editor is 'listening' for incoming MIDI information or not. How any incoming MIDI data is handled depends on the settings of other switches.

Speaker

When this switch is activated any of the notes or events that you select in the editor will be played.

Note

When this switch is selected, notes within the editor are matched to incoming MIDI notes. Playing a key on your keyboard automatically adjusts the pitch of the currently selected note - Cubase then jumps its selection to the next note.

Vel.on

This works in the same way as the note switch, except here you are entering velocity instead of pitch data - useful for injecting variation into hi-hat parts, for example. Opening the relevant part in the editor, activating the MIDI in and Vel.on (velocity on) switches, and selecting the first note of the part lets you 'play' in the velocities from your keyboard.

Vel.off

When the MIDI specification was first laid down, there was provision for release velocity to be implemented. This works on the same principle as normal note-on velocity, only the message is generated when a key is released. Unfortunately, very few MIDI devices take advantage of this. Check the MIDI implementation chart in your keyboard's manual; you could soon be using this switch in much the same way as the velocity on switch.

Step

Activating this switch puts you into step input mode. Notes are entered according to the Snap and Quant values, but aren't registered until all keys are released, allowing you to enter chords.

Insert

The insert switch is used in conjunction with step input mode. All events after the insert point are moved forward by the snap value as each note is entered.

Colourise

You can colour-code the events in the editor in various ways using this switch. When clicked, a menu will drop down offering choices of how to colour-group the events.

Undoing the changes

Finally, you can cancel any changes made in an editor at any time by hitting escape. This closes the editor in question, and returns the edited part(s) to its original state. Pressing enter or simply closing the window means all edits are kept - there's no going back!

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