

# Programming MIDI Sequences and Instruments

## *Recording, Engineering, and Mixing*

In addition to using REAPER as a MIDI-based recorder, you can also program and edit MIDI sequences by hand. Here's how you do it:

To start by creating your own brand-new MIDI sequence do the following:

1. Right-click in the track list area and choose "Insert virtual instrument on new track".
2. Choose the virtual instrument you'd like to use.
3. Go to the "Insert" menu and choose "New MIDI item".
4. If you do NOT want this to be a repeating loop, right-click on the MIDI item, choose "Item Properties", and uncheck the box marked "Loop source".
5. Double-click on the blank MIDI item. The MIDI editing screen will appear with a piano keyboard vertically along the left of the screen.
6. You can figure out which notes to use by clicking on the keyboard. This will play the note without programming it. (This is especially helpful when using drums – it's not obvious which note will produce which drum sound, so you have to click on the notes to figure it out.)
7. To program a note, double-click in one of the blank spots on the grid. That will program that note (from the vertical axis) at that time (on the horizontal axis). The grid is broken into half-notes, quarter notes, eighth notes, and so on – this will help keep you on tempo.
8. You can make a note longer by stretching out it. You can also move notes by dragging them and delete notes by double-clicking on them.
9. Once you're done, close the MIDI editing window.
10. If you've made a loop, you can extend it by dragging the right end of the loop on the track.

If you've already recorded or programmed a MIDI sequence, you can edit it by double-clicking on the sequence. That will bring up the MIDI editing screen, and you can then make any changes you want.

Since MIDI is tempo based (you place the notes on specific beats in a musical measure), you can easily speed up or slow down a MIDI loop. Just type a new number into the "BPM" box which shows up below the track are to the right of the location indicator. Faster numbers will increase the tempo of MIDI items and slower numbers will decrease the tempo of MIDI items.