4
Building Your Song

In this chapter, we will cover:

- Working with rhythm and percussion
- Adding virtual instruments
- Working with MIDI controllers and MIDI pads
- Comparing pattern and song mode
- Using the Piano roll feature

Introduction

Building your song in FL Studio allows you the freedom to add drums, harmonies, sounds, and instruments. This will usually come in the form of virtual instruments, MP3 files, WAV files, software plugins, and the like. You will be adding all of these elements as channels in the step sequencer, as discussed in previous chapters. There are many ways to record your data into the step sequencer. You can use your mouse and draw your chosen notes into the **Piano roll** feature, physically play and perform a melody using a MIDI keyboard, press the keys on your actual computer (QWERTY) keyboard, or manually enter each step within the step sequencer. The step sequencer also has the added functionality of using the **Graph editor** and **Keyboard editor**. Some people prefer to perform their melodies using a MIDI keyboard because of the hands-on feel and touch sensitivity of the keys, which can later be edited and quantized if certain notes are slightly out of sync.

Working with rhythm and percussion

Although each part of your song is tremendously important to the final outcome, working with rhythm and percussion is debatably the most important part of your song. If your drums, kicks, snares, hi hats, and other percussion are weak, you song won't stand the test of time and won't sound very good to your listeners. Rhythm and drum samples can sound very different from genre to genre, so you want to pick these properly. That being said, you can also experiment with a fusion of sounds and mix genres to create your own sound.

Getting ready

To get started adding rhythm and percussion, you will want to have the step sequencer and FL Studio browser opened. Press *F6* to bring up the step sequencer, or go to the **VIEW** menu and select **View step sequencer**. A third way to bring up the step sequencer is to click on the second button from the left in the console shown in the following screenshot. It shows the tiny square steps inside of the step sequencer. You may press *F8* to bring up the FL Studio Browser, or go to the **View** menu and select **Browser**. A third way to bring up the **Browser** window is to click on the fourth button from the left in the console, as shown in the following screenshot:

Fig 4.1

How to do it...

The following steps will explore the important functions required to work with rhythm and percussion:

1. Go to the main **OPTIONS** menu and then to **Project general settings**. There, under **Time division**, you may set your main **Bar** and **Beat** for the entire music project, as shown in the following screenshot:

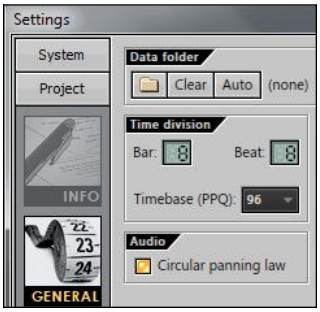

Fig 4.2

2. If you need to override your main **Bar** and **Beat** settings with a different scaling, set **beats per bar for this pattern** for your specific pattern. In *Fig 4.3*, this is set to **4** and shown in the upper-left-hand corner of the step sequencer.

A song structure in 4/4 time (most popular song signature) is usually by 4, 8, or 16 bar loops. If you want a longer drum loop with more variation, you should set it to 16 bars. Nevertheless, the drum loop can actually last as long as you need when sending channels into the FL Studio Piano roll. This is reviewed in the final recipe of this chapter, *Using the Piano roll feature*.

3. Set your FL Studio project tempo, which is signified as **Beats Per Minute** (**BPM**). The BPM tempo adjuster is located to the right of the transport controls, which are the play, stop, and record buttons. The following screenshot shows the options for the **Percussion** menu:

Fig 4.3

4. Add channels to the step sequencer. This will usually be a kick, snare, hi hat, shaker, bongo, cymbal, sound effects, or any type of sound you want to utilize as percussion. You may drag samples from the browser to the gray, blank area on the step sequencer to add them. You may also right-click on a sample inside of the browser and select **Open in new channel**.
5. Right-click on a **Hat** or **Shaker** channel as per *Fig 4.4* and select **Fill each 2 steps**.

6. Fill in your step data for **Kick**, **Snare**, and **Percussion**. The following screenshot shows the step sequencer entries:

Fig 4.4

Once you have step data on any percussion channel in the step sequencer, there are two ways to swap and replace the data with a new sound. These two ways are mentioned in the upcoming steps. The following screenshot shows the FL Studio Browser:

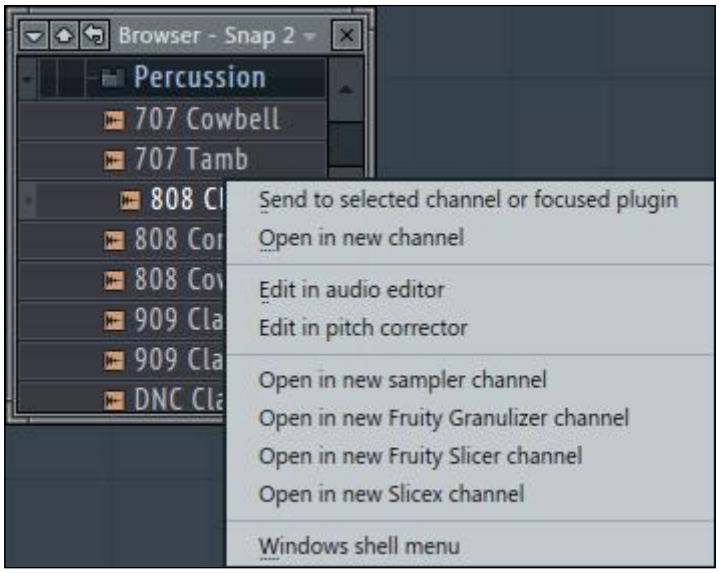

Fig 4.5

7. Swap current data in any channel with a new sound from the FL Studio in order to test the different options. This is done by right-clicking on a sound in the FL Studio Browser or you can just engage any channel by clicking on the small green slit areas. selecting **Send to selected channel or focused plugin**, as shown in *Fig 4.5*.

Fig 4.6

8. Another way to swap current data in a channel is to left-click on any sound in the **Browser** window and drag it to the channel you want to swap. In *Fig 4.6*, we dragged a sample from the **Browser** window and were about to swap it with the **Hat** channel. When you hover your mouse over the channel you want to swap, it will show the channel in orange and then you can release your mouse button. The **808 Clav** WAV sound will replace the **Hat** channel. Step data will remain unchanged, but the actual sound will be replaced/swapped.
9. Press the Space bar to start and stop your current pattern.

How it works...

You may add as many channels as you want for your percussion and rhythm. It helps with the creative process to "go with the flow" and keep adding elements to your music project in a single pattern. You may then use the **Split by channel** method, as discussed in *Chapter 3*, *Working with the Step Sequencer and Channels*, in order to separate all of these elements for your song arrangement. You will also want to set your **Preview mixer track** as discussed in *Chapter 2*, *Using Browser*. This will help to test out sounds before adding them as a channel to the step sequencer. You can also just simply click on sounds in the **Browser** window to test them out, but the **Preview mixer track** will help you to at least adjust the volume on previewed sounds. Please remember to work with the various parameters in **Graph editor** as well as **Keyboard editor**. This will allow you to enhance and fine-tune individual notes of percussion and rhythm—not just a global adjustment. Also remember to open up your **CHANNEL** settings on any given channel in order to modify and alter your sounds. If you are constantly starting with the same processes in your workflow, you can save your project as a template. In this manner, you can take some of the tedious nature out of the equation. Remember to clone channels (right-click on a channel for the **Clone** option) if you want to experiment with different options of the same sound as well as copy and paste data from one channel to the next.

There's more...

The rhythm and percussion section of your music production is the backbone of your music production. This can drastically alter the mood and genre of your music. Once your drums and rhythm are established, you will have a nice base to work with and then you can add your bass line, instruments, and other harmonies such as the piano, violin, guitar, and various synthesized sounds. That being said, sometimes you will want to do the opposite. You may start with an extremely simple hi hat or shaker that acts as a metronome and then begin your instrument melodies. Once you have some melodies in place, it can be very rewarding to add a kick and snare that compliments the mood and tone of your melody. If you enjoy adding your kick and snare later, make sure your melodies are at a suitable volume. If you start with a harmony that is too low in volume and then add your rhythm, the volume may not be loud enough. That is why you must start with the kick, snare, and hi hat first—so you can set it at a suitable volume and then add your instruments. Nonetheless, do what you feel is right during your creative process. Your volume level is crucial here because after you start with one sound, you will be building other sounds around it.

See also

- The *Getting new sounds in Browser* recipe in *Chapter 2*, *Using Browser*
- The *Exploring Channel settings* recipe in *Chapter 3*, *Working with Step Sequencer and Channels*
- The *Sending a channel to a mixer slot* recipe in *Chapter 3*, *Working with Step Sequencer and Channels*
- The *Perfecting equalization* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*

Adding virtual instruments

Adding virtual instruments, software sounds, and software plugins allow you to make inspirational harmonies in your music production. Usually, you will find presets that you can scroll through in any given virtual instrument plugin. You will also find knobs that affect the sound parameters. Virtual instruments mean sounds that are based in software. You will be able to control these sounds using your QWERTY keyboard, MIDI controller, your mouse (preview only), or by using the FL Studio Piano roll. The actual installation of virtual instruments and effects to be utilized in FL Studio was covered in *Chapter 1*, *Configuring FL Studio*. There is a wide array of virtual instruments, from low quality to high quality. For example, Hans Zimmer uses certain virtual instruments when composing scores for film, so there are many high-quality orchestral and sample libraries. NATIVE INSTRUMENTS and EASTWEST are two companies known for high-quality virtual instruments. The quality will be based on the coding and algorithms of software designers. Usually, the most realistic sounding virtual instruments are hybrids of high-quality recordings and programming. The drawback is that they are also pricey, but may be worth it depending on your needs. You may also find free virtual instruments by searching on the Internet.

Getting ready

To get started using virtual instruments, you will simply need to have the step sequencer opened. Your virtual instruments will appear as a channel in the step sequencer. With FL Studio default virtual instruments such as 3x Osc and TS404, the **PLUGIN** tab will give you immediate access to the parameters. Other times, your **PLUGIN** tab will be a graphical pop-out interface that will vary in appearance depending on the plugin designers.

How to do it...

The following steps will guide you through the process of adding virtual instruments:

1. Right-click on a channel in the step sequencer as shown in *Fig 4.7*.

2. Select **Insert** and then bring up the software instrument you want to use. FL Studio allows you to use their factory plugins, 3x Osc, TS404 bassline synthesizer, Fruity DX10, BooBass, and FL Keys, among others as instrument plugins. If it says **DEMO** after opening or trying to save a project, it is only a demo plugin. You can test out demo sounds but cannot save them to your project.

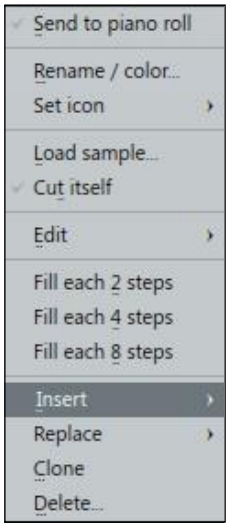

Fig 4.7

3. Alternatively, you may use the FL Studio Browser. Right-click on a sound and select **Open in a new channel**. *Fig 4.8* shows a right-click on a sound within the `3x Osc` folder. You may also use the main FL Studio **CHANNELS** menu and then select **Add one**.

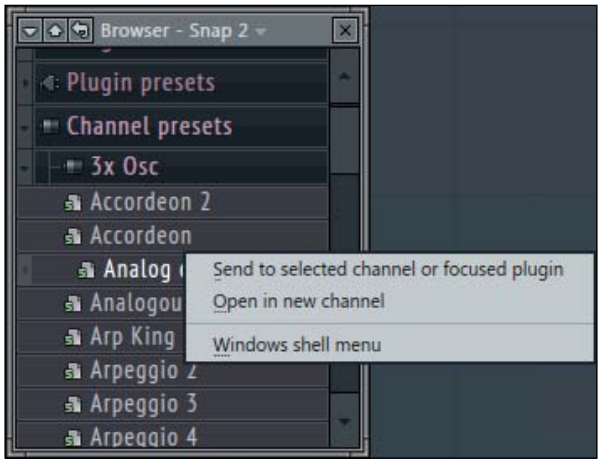

Fig 4.8

4. Use the FL Studio step sequencer and **Keyboard editor** to enter the notes of your instrument. You may also right-click on a channel and use the Piano roll, reviewed later in this chapter.

5. Use your MIDI controller, mouse, or QWERTY keyboard to preview the sounds of your instrument plugin. Hold down *Ctrl* and click on a channel name to play a previous C4 note.

6. *Fig 4.9* shows the graphical pop out of an instrument plugin when you click on the **PLUGIN** tab in your channel settings:

Fig 4.9

7. When an instrument plugin has an actual pop out and a software graphical readout, you may scroll through presets using the left and right arrows at the upper right-hand corner of the plugin. It will list the name of your preset on the upper-left of your plugin. *Fig 4.9* shows we are working with the instrument called **eFlute**, within the **Fruity DX10** plugin. Right-click on the left or right arrow to display a list of all available sound patches of your plugin.

Right-click on the left or right arrow to display a list of all available sound patches of your plugin.

8. To see how many presets are present within a given instrument plugin, look at the FL Studio hint bar. In the following screenshot, we see that **eFlute** is the 11th patch/sound out of 59 presets:

Fig 4.10

9. There are two main ways to engage your QWERTY keyboard to function as a basic controller. The keys on your actual computer screen will control the notes in FL Studio. This is in cases where you do not have an actual computer keybed or MIDI controller, or when you are mobile with a laptop but no MIDI controller.

Fig 4.11

10. To use your QWERTY keyboard to record or preview notes, you will want to select **Typing keyboard to piano** in the **OPTIONS** menu or simply engage the orange light on the small keyboard in *Fig 4.11* (on the top left-hand side). If you decide to use **Metronome**, you can click the symbol underneath the keyboard sign in *Fig 4.11*. Right-click to select different sounds of your Metronome.

Fig 4.12

Recording using a MIDI controller/keyboard or a QWERTY computer keybed

1. Engage the channel you want to record with the channel select button (small green slit next to the **3xOsc** channel in *Fig 4.12*).
2. Right-click on the **3 2 1** button to select your precount duration.
3. Click on the recording button in the transport controls and it will turn orange.
4. Select **Automation & score**. This means your MIDI data and notes will be recorded into the step sequencer. MIDI isn't actual audio—it is simply note data, duration, and how hard you pressed a particular key (note velocity). You can change and cycle through various sound patches once MIDI data is recorded.
5. Click on the play button to begin your countdown.
6. Record your performance and your channel will now show data in the FL Studio Piano roll. The following screenshot shows the transport controls used for recording purposes:

Fig 4.13

How it works...

Once you have your instrument plugin in a channel within the step sequencer, you have many options with regard to how to get your data recorded and saved in the step sequencer. Working with the Keyboard editor can be handy if you are on the go and you only have access to a mouse and your computer. If you have a MIDI controller and you want to actually perform your notes as your pattern plays, you will use the recording method from *Fig 4.12*. You will be recording **Automation & score** because your score means the notes you are playing. Using virtual instruments within your computer means you are not actually recording audio per se—you are recording the MIDI notes within your software plugin. Once recorded, you can replace your sound patch. You may also paint or draw notes directly into the Piano roll, which we will review later in this chapter.

The area next to the transport controls (play, stop, and record) is crucial when working with virtual instruments, recording, and using the step sequencer. If you engage the button to the right of **3 2 1**, you will find the hint bar tells you it is the **Blend recording (overdub)** button (highlighted with a red circle). When using the overdub button in conjunction with the **Loop recording** (the button with the R and an arrow icon) button, your pattern will loop back around and you can continue to add notes/data to your given channel without pressing stop. You can also switch to different channels and continue to record. This is a remarkable function of FL Studio because your creativity can expand as your project continues to play. Be careful during the blend recording process because everything you do (besides recording MIDI data) will be recorded, for example, tempo and volume knob tweaks.

If the overdub button is turned off and you still have the **Loop recording** button engaged, your notes/data will be replaced by whatever notes you choose to play. During this process of overdubbing or loop recording, you can actually move from channel to channel by using the channel select button, and FL Studio will continue to record. You can also add new channels, sounds, and plugins while FL Studio continues to record! This allows you to get very creative and add parts on the fly, which you can edit later.

See also

- *The Using the Piano roll recipe*
- The *Installing virtual instruments and effects* recipe in *Chapter 1*, *Configuring FL Studio*
- The *Sending a channel to a mixer slot* recipe in *Chapter 3*, *Working with Step Sequencer and Channels*
- The *Adding effects to your effect chains* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*

Working with MIDI controllers and MIDI pads

Working with MIDI pads, controllers, and keyboards allows you to have a hands on feel when working with FL Studio and opens up many doors for the creative process. You may find that you have more creative control when turning physical knobs instead of a mouse or drawing in automation curves. It is extremely helpful when working with keyboards because you have 10 fingers instead of one mouse click. Working with pads can help when working with percussion samples and coming up with percussion grooves. You may also have faders/sliders that can control the faders/sliders (volume control) in the FL Studio mixer. In this manner, you can adjust the volume of multiple mixer tracks at the same time, similar to a standard analog mixer, but in this case you are using a MIDI controller to control software.

Many keyboards and MIDI controllers are also touch sensitive, which means the volume output will vary depending on how hard or how soft you press the keys. This also helps with creativity and building your song. Additionally, MIDI keyboards come in all sizes. You may have a small, transportable keyboard when you are on the go, or a full size 88-key MIDI controller at your home studio. There are also many different types of MIDI pads, touchscreens, and knob configurations. Using a physical MIDI controller may make you feel like you are more involved with your music project because using a mouse can become boring and tedious. MIDI signals can now be recognized by simply using a USB chord, which makes them very easy to use with your computer.

Getting ready

You usually want to connect your MIDI controller before launching FL Studio. However, if you connect after launching, you may press **Rescan MIDI devices** as shown in *Fig 4.14*. You may use a USB chord that connects to your computer or MIDI cables that will connect to your audio interface.

How to do it...

The following steps will show you how to work with MIDI devices using FL Studio:

1. Plug your MIDI device into your computer. If you are connected to the Internet, your device will usually automatically install the proper MIDI drivers/software for your computer. However, sometimes the manufacturer may have a MIDI driver that unlocks more features of the device. At other times, you may have an installation disk. This may work, but keep in mind the manufacturer's website usually has the most recently updated drivers.

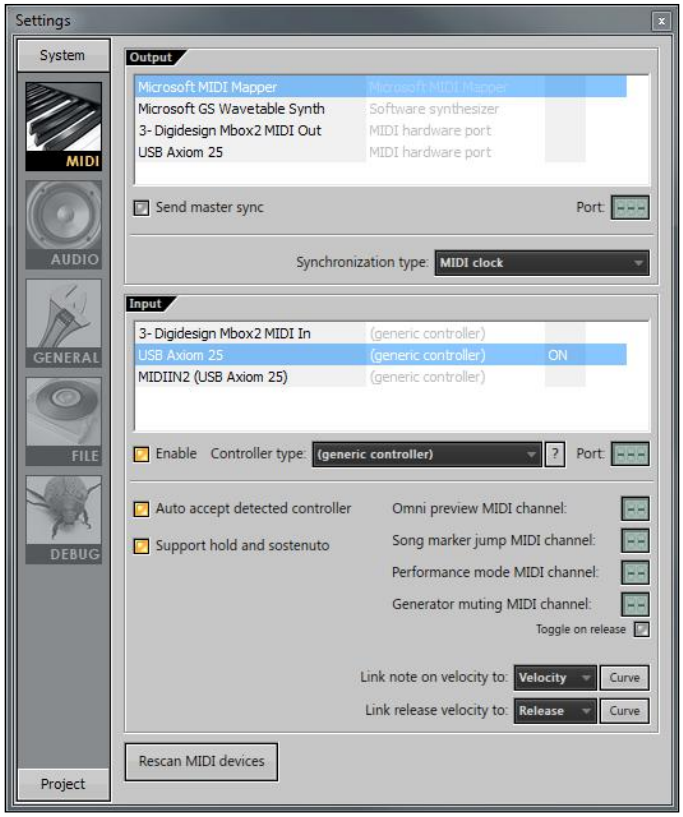

Fig 4.14

2. Press *F10* to open up your MIDI settings, or go to the **OPTIONS** menu and select **MIDI settings**.
3. Click on your desired device in the **Input** section so it shows up in blue, as shown in *Fig 4.14*.
4. Click on the **Enable** button as shown in *Fig 4.14*. When engaged, it will turn orange.
5. Click on the **?** (question mark) tab while connected to the Internet for more information on linking MIDI controllers to your device.
6. Click on the **(generic controller)** to view MIDI devices that are preconfigured to work with FL Studio. You may also use a generic controller, that is, something not in the list, and configure it to your liking.

Fig 4.15

7. Press a key on your MIDI controller. If it is operating correctly, you will see MIDI activity, which is apparent due to the orange glow of the MIDI button, as shown in *Fig 4.15*. The hint bar will also display which key you have pressed and how hard you have pressed it. (**velocity: 127**) If you have a channel engaged (green slit), it will show the volume activity in white (kick activity). When acting on other MIDI inputs, such as moving a knob or a slider, the MIDI signal will light in green instead of orange.

8. If your device is not operating correctly and FL Studio has been launched, you may select **Rescan MIDI devices**, as shown in *Fig 4.14*.

Fig 4.16

9. You will also see a screen readout of the key you have pressed on your MIDI controller when you open up your channel settings or virtual instrument plugin. In *Fig 4.16*, the *C* key was pressed on your physical MIDI key and the **C5** key symbolizes this. The physical keys on your MIDI controller will parallel your graphical images in FL Studio. This generally holds true for any instrument plugins that pop out into a graphical keyboard interface.

10. Let's look at the connecting knobs, sliders, and any physical parameter on a MIDI controller (not preconfigured). Have a look at the following screenshot:

Fig 4.17

11. Move your mouse to any parameter, knob, or slider in FL Studio.
12. Right-click on the knob or slider you want to control with your MIDI controller and then select **Link to controller...**, as shown in *Fig 4.17*.
13. The **Remote control settings** dialog box will appear as shown in *Fig 4.18*.

Simply move a knob, slider, or any physical control on your MIDI controller, and it will now be controlling the parameter you previously right-clicked on in FL Studio. Make sure the **Auto detect** parameter is activated in the **Remote control settings** window; otherwise, this method will not work.

Fig 4.18

Connecting multiple knobs, sliders, and any physical parameter on a MIDI controller (not preconfigured)

The following steps explain how to connect multiple knobs, sliders, and any physical parameter on a MIDI controller:

Fig 4.19

1. Click on the **Multilink to controllers** button, which is the button on the bottom right-hand side of the preceding screenshot.

2. Click and move, one at a time, the parameters you want to control with your mouse in FL Studio.

Fig 4.20

3. In the preceding screenshot, we have clicked and moved the **X** knob with our mouse, and then we have clicked and moved the **Y** knob with our mouse. This must be done in the order you specify, because FL Studio will remember which knob, slider, or parameter you have moved and in what order. This will then match up to the physical knobs your move with your fingers and hands.

Fig 4.21

4. When we move any parameter with our mouse, FL Studio will show a brief hint next to the **Multilink to controllers** button. In *Fig 4.21*, the hint titled **2: Sytrus - Main - Modulation Y** has appeared after we moved the Y knob in *Fig 4.20*. This is because it was the second parameter we moved. The first parameter we moved was the **X** knob.

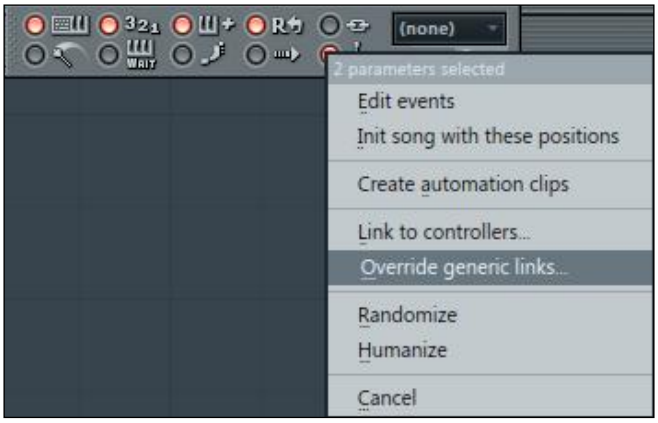

Fig 4.22

5. Right-click on the **Multilink to controllers** button.
6. Select **Override generic links...**. Note that it also says that two parameters are selected because we have clicked and moved two parameters with our mouse, the **X** and **Y** knob.
7. Finally, move the knobs, sliders, or physical control on your given MIDI controller in the exact order you want to specify, based on the order you engaged with your mouse in *Fig 4.20*. The first/primary knob or control you physically turn with your finger or slide with your hand (this can be any knob or button you desire) will control the X knob because it was clicked first in the example on *Fig 4.20*. The second knob or control you physically turn with your finger or slide with your hand will control the **Y** knob because you clicked it second with your mouse, as shown in *Fig 4.20*.

How it works...

When you are selecting **Link to controller...** or **Multilink to controllers**, you are selecting whatever physical control you desire to move with your hands instead of clicking with a mouse. Many times, people enjoy using sliders on their MIDI controller to control the sliders in the FL Studio mixer. You may also control any knob within the channel settings on any FL Studio channel. The creative possibilities of using your MIDI controller are unlimited; many times, using the functionality of MIDI control will enhance your studio productions as well as your live performances. If you can see the **Link to controller...** button on right-clicking a knob, slider, or parameter, it means that you can control it via MIDI control. Many times, these controls are used to control low pass or hi pass filters, which can add intrigue and suspense to your music projects. You can also use other physical tools on your MIDI controller, such as the pitch bend.

Many DJs and EDM producers use the functionality of MIDI at live venues, but MIDI control is friendly to all genres of music, including Rock, Jazz, and Pop. MIDI pads or keys can also control your mute and solo buttons in FL Studio, in addition to your volume and panning. You can also use a MIDI button as an on/off switch to toggle effects. When performing live, it allows you to have much more flexibility. For many, using MIDI control is the final piece of the puzzle, because it allows you to have fun while creating music instead of just using your mouse. You may have a better feel and control for your FL Studio parameters when moving MIDI controllers instead of clicking-and-dragging with a mouse. With regard to using MIDI keys on a keyboard, it basically replaces older types of synthesizers, which produce their own sounds. The only caveat is that you need to have a powerful computer when using a MIDI keyboard, which controls your virtual instruments.

See also

- The *Adding Effects to your effect chain* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*
- The *Using automation on virtual instruments and effects* recipe in *Chapter 10*, *Recording Automation*

Comparing pattern and song mode

Pattern/song mode is the basis of understanding how to arrange your song in FL Studio. A pattern is simply a slice of time that will last a couple of seconds, loop back to the beginning, and repeat. Of course, a final song will usually last between a couple minutes to eight minutes or so. When we arrange our patterns into the FL Studio playlist using song mode, we are able to incorporate various patterns to form a full production. We may also separate all of our pieces and parts in patterns in order to utilize them in the FL Studio playlist in song mode. In song mode, we can arrange our pieces and parts (patterns) to form our intro, verse, chorus, bridge, outro, and so on depending on our musical requirements.

Getting ready

In order to get started, we need to have the FL Studio step sequencer opened as well as the FL Studio playlist. The step sequencer can be opened by pressing *F6* and the playlist can be opened by pressing *F5*. Press *Tab* to toggle between these windows. We will also want access to the transport controls (play/pause, stop, and record) next to the **TEMPO** information because that is where we specify pattern or song mode.

How to do it...

The **SONG** button is very crucial with regard to arranging your song in the FL Studio playlist! The following screenshot shows the area where you can find the **PAT** and **SONG** functions:

Fig 4.23

The following screenshot is an example of the **Split by channel** function, which was reviewed in *Chapter 3*, *Working with the Step Sequencer and Channels*:

Fig 4.24

The following steps will explain you how to the compare pattern and song mode:

1. Insert steps or data on a single pattern. In *Fig 4.24*, we have entered steps on the **Kick**, **Clap**, **Hat**, and **Sytrus** channels. You cannot see data on each channel because we have already used **Split by channel**.
2. Click on whatever pattern incorporates all of your original data, as per *Fig 4.24*, and select **Split by channel**. In *Fig 4.23*, we click on the pattern name at the top of the step sequencer **Kick** or right-click on the **PAT** box once your pattern is selected.
3. As reviewed in *Chapter 3*, *Working with the Step Sequencer and Channels* the **Split by channel** function will automatically transfer each channel data to its own pattern. This takes the "manual labor" of cutting and pasting out of the equation. After using the **Split by channel** functionality, the **Kick** steps/data will remain on **Pattern 1** because it is vertically the uppermost channel in the step sequencer. The **Clap** step data will be moved to **Pattern 2** because the **Clap** channel is vertically below the **Kick** channel. The **Hat** steps will be moved to **Pattern 3** because the **Hat** channel is vertically below the **Clap** channel in the step sequencer. Finally, the **Sytrus** data will be moved to **Pattern 4** because it is the bottom-most channel in the step sequencer. Four channels are equal to four patterns, and the **Split by channel** functionality splits it out for you.

Fig 4.25

4. Click on the small circle beside **SONG** underneath the **PAT** button, as shown in *Fig 4.25*. This will engage your FL Studio playlist and the orange triangle will now be located at the top of the playlist. This orange triangle will move in time with the location of the playback of your song. Engaging the **SONG** button is essential in order to be able to arrange a full length song!

Fig 4.26

5. Scroll with your mouse onto whatever pattern you desire to paste into the FL Studio playlist.
6. Click on the FL Studio playlist and your selected pattern will be pasted to the timeline of your song.
7. In *Fig 4.25*, we have started our song with the **Hat** pattern for two measures, and after the **Hat** pattern, we have pasted the **Kick**, **Clap**, and **Sytrus** patterns, which will all now play at the same time.
8. FL Studio allows for 999 patterns, so you have the liberty to be very creative.

How it works...

In *Fig 4.25*, we have clearly separated the **Hat** pattern, and it plays by itself at the beginning of the song. You may also paste a multitude of patterns on track 1 if you so desire, as well as right-click on the track names (**Track 1**, **Track 2**, and so on) in order to rename them. Each track can have various patterns located on a single row if you so desire. Pasting patterns into the FL Studio playlist lets you specify exactly what you want to happen at specific moments in time. You can also click-and-drag when you are clicking in the playlist in order to quickly paint in the same pattern over and over if desired. This may help with quickness and workflow. Sometimes you will want to separate your percussion parts on different patterns in order to add or remove them at certain parts of your song. You may select solo tracks in the playlist by right-clicking on the small green light next to **Track 1**, **Track 2**, and so on. A left-click will mute or unmute tracks. You will also be able to control (specify location, paste, and move) pattern harmonies, virtual instruments, audio recordings, and automation clips in the playlist. Any data you have in any channel in any pattern can be pasted into the FL Studio playlist. Using the playlist is how you build your song based on your music project and what you want to occur. Once you are done arranging all of your parts in the playlist, you will also be able to export your song. Once exported, it will play back as an MP3 or WAV file on MP3 players, the Internet, a CD, or any media device. The playlist is where you move song elements around to produce the coolest arrangement.

See also

- The *Using patterns to build your song* recipe in *Chapter 5*, *Using the Playlist*
- The *Recording external audio* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*
- The *Exporting an MP3 or a WAV file* recipe in *Chapter 8*, *Exporting and Rendering your Project*

Using the Piano roll feature

The FL Studio Piano roll feature is very useful when crafting bass lines and melodies in your music production. When you open up **Piano roll**, you have a large graphical interface where you can see the beats, bars, measures, notes, and note durations of your given FL Studio channel. Although it is used for harmonies when working with synths, virtual instruments, pads, and so on, it is also useful for any sound in any conceivable channel including but not limited to hi hats, kick drums, and snares. The piano roll has a larger piano area where you can toggle between real-world piano note values or images of a keyboard. You can slice your notes and perform complex edits at the click of a button. This is sometimes preferred over the step sequencer and Keyboard editor, although a mixture of both can be a great music production tool.

Getting ready

In order to use the FL Studio Piano roll, you simply need to have a channel of any sound or virtual instrument inside of the FL Studio step sequencer.

How to do it...

Let's examine how to use the all-powerful FL Studio Piano roll.

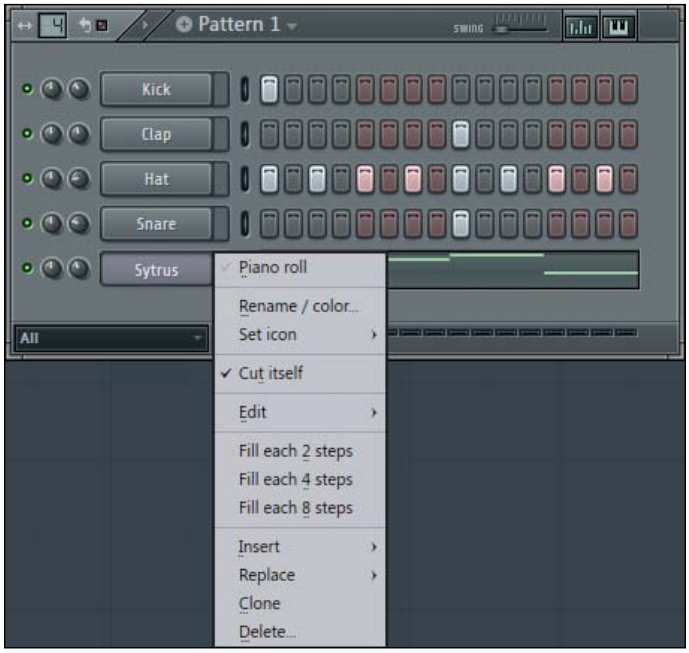

Fig 4.27

1. Right-click on a channel in the step sequencer. In *Fig 4.27*, we have right-clicked on the **Sytrus** channel, which happens to be a virtual instrument. Next, select **Piano roll**.

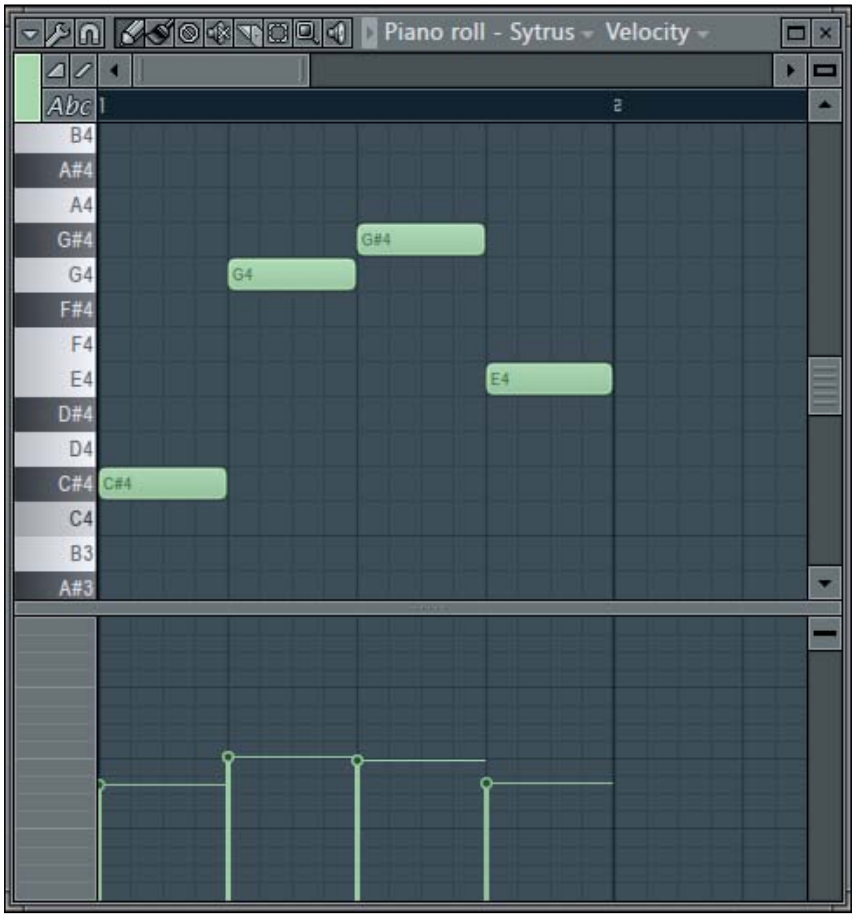

Fig 4.28

2. Left-click on **Draw** (the pencil icon in the preceding screenshot) or **Paint** (the paintbrush icon in the preceding screenshot) in your notes for your channel to explore drawing or painting functions. Right-click to erase and remove notes.
3. Adjust the length of notes by hovering your mouse over the end of your note until you see a horizontal adjustment mouse maneuver.
4. Move notes up, down, left, or right by hovering your mouse in the center of your notes until you see a vertical and horizontal cursor icon.

5. If you have a scroll wheel on your mouse, hover on top of the black bar next to **Abc**, as shown in *Fig 4.28*, and you will be able to zoom in or zoom out using your scroll wheel. This helps to focus the area you are working on. You may also have to adjust the horizontal scroll bar as shown in *Fig 4.28* based on how you are zooming in or zooming out.
6. Hover your mouse over any part of the Piano roll window's exterior in order to resize the piano roll graphical interface to your liking. You may hover your mouse over the top, right, bottom, or left hand sides as well as the top-left corner, top-right corner, bottom-right corner, and bottom-left corner in order to resize. The cursor icon will change based on how and where you want to resize.

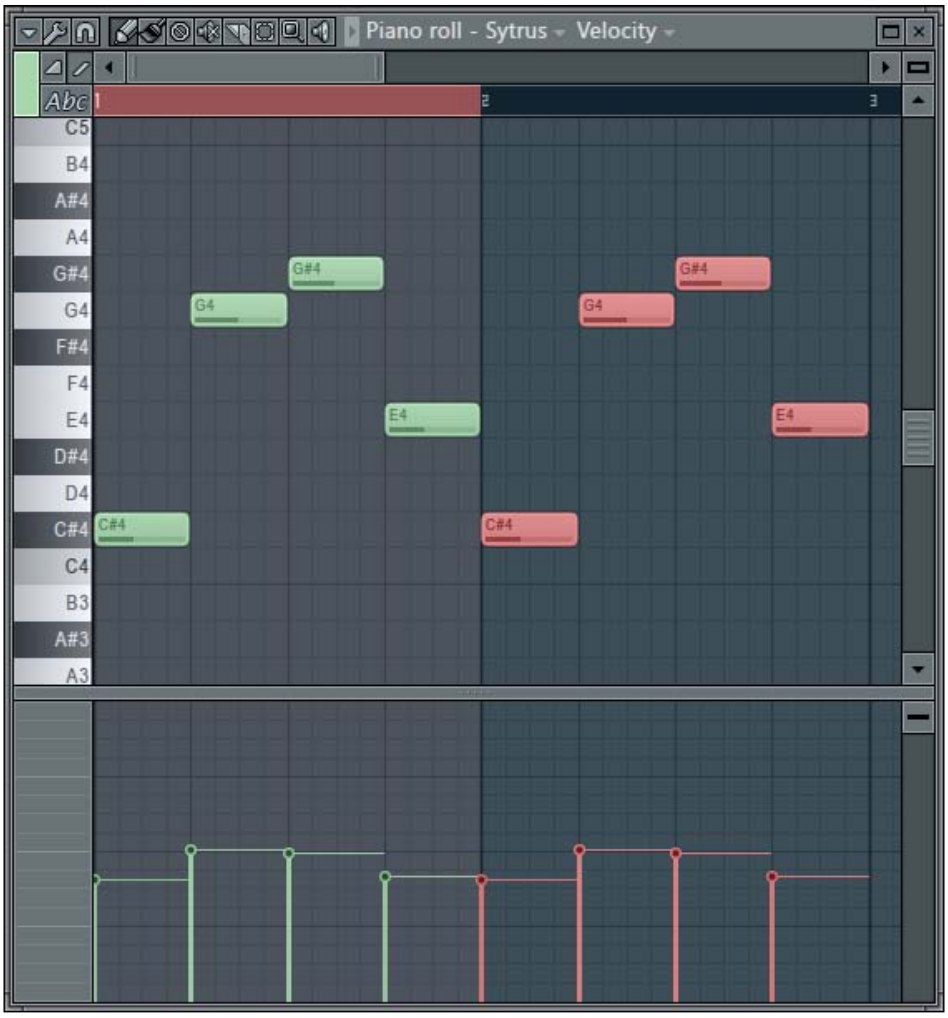

Fig 4.29

Now, let's try copying and pasting notes within the Piano roll feature. Perform the following steps:

1. Press *Ctrl* + *A* to select all current notes.
2. Press *Ctrl* + *C* to copy notes.
3. Press *Ctrl* + *V* to paste notes.
4. Hold *Shift* + right arrow key to move the notes to the right. Alternatively, once you have pasted the notes, you can use your mouse to hover over the notes and drag them to the right.
5. The pasted material will show in red, as shown in *Fig 4.29*, until you click elsewhere.

A handy tip is to hold *Ctrl* and click-and-drag your mouse to select notes of your choice. Then hold *Shift* and drag the notes with your mouse and the area you have selected will automatically be copy-pasted. Clicking on an empty area will duplicate your last note length. Pressing *Shift* and clicking on an empty area will duplicate your last note value and simultaneously allow you to change its length. Holding down the *Alt* key will allow you to toggle the **Piano roll** grid on and off, allowing you to slide certain notes away from the grid if necessary. Click and hold the right mouse button in order to automatically bring up the **Slice** tool.

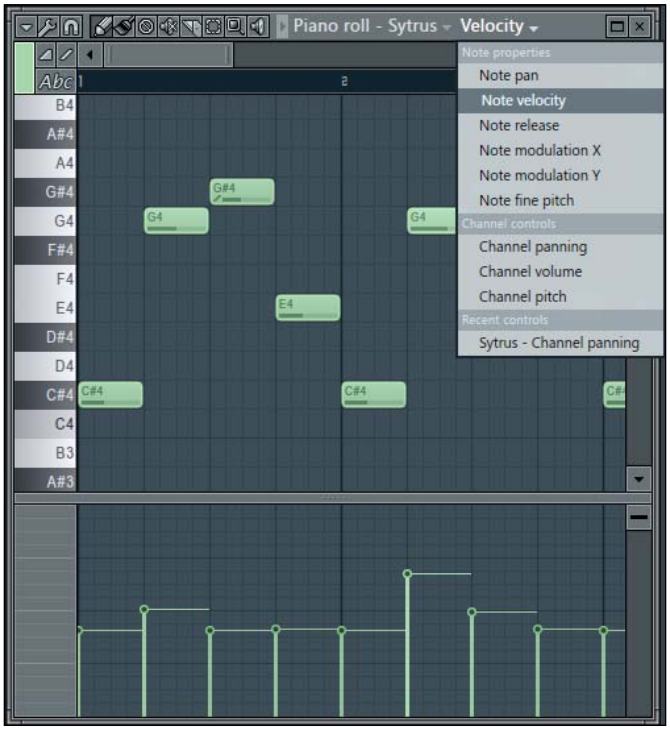

Fig 4.30

6. The bars at the lower portion of the FL Studio **Piano roll** window correspond with each **Note velocity** (volume).
7. Click on the bars and drag up or down to adjust the volume of the corresponding notes directly above them.
8. Click on **Velocity** at the top of the **Piano roll** window to bring up additional options. You may select whatever option you need and then the bars will be engaged as per your selection and you can adjust them from there. You may double-click on any note in the **Piano roll** window to bring up options for your double-clicked note, as shown in *Fig 4.31*. We have double-clicked on **C#4** in *Fig 4.31*. Make changes as you desire and click the space bar to preview those changes. Click on **Accept** to accept the parameters you have changed. This also works for any selection of notes. Select as many notes as you desire, double-click, and you will then be able to adjust their **Note properties** on a global scale/mass edit. The pop-out properties icon will then read **Note properties – selection**. Additionally, with chords, some notes can be excluded by keeping them out of your selection.

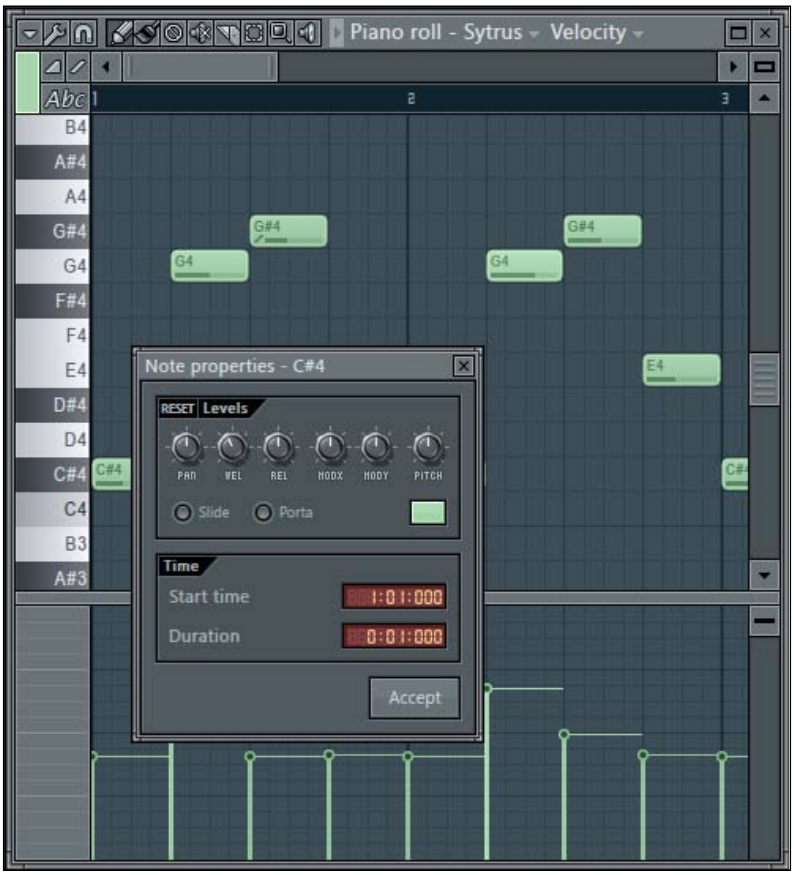

Fig 4.31

How it works...

The **Piano roll** feature is a very powerful tool within FL Studio. It is styled after popular MIDI editors. You may draw or paint as many notes as you desire and copy and paste them, as shown in *Fig 4.27*. This can help when you want the exact same notes in the next measure or when you want a similar note pattern that you want to tweak a bit after copying and pasting. Please note that your **Piano roll** data can be expanded way past the length of your beats per bars in the step sequencer. This means you may want to move your **Piano roll** data to a separate, dedicated pattern and then use the playlist to arrange your pattern. Your **Piano roll** data can stretch as far as you like, so you can make changes and variations within one channel if you so desire.

You can also record piano roll data while in pattern mode. Sometimes, this is advantageous when making bass lines and harmonies. The way in which you use the FL Studio **Piano roll** is based on your own preferences. Some users like to keep adding notes in the **Piano roll** section past measure three or four and get all the way up to measure eight or longer. In this manner, you have your variations already set in place and you don't have to make new data in new patterns or copy and paste from pattern to pattern. The length on one single Piano roll can stretch to three or four minutes or longer. However long your piano roll stretches may be, it will be clearly represented when you paint your given pattern into the FL Studio playlist.

Once you right-click on a channel and open up the **Piano roll** feature, your channel data and graphical readout will change when viewing the step sequencer. It will no longer show steps in the step sequencer. It will show each note in your Piano roll as per the **Sytrus** channel in *Fig 4.27*. You can then simply click on the green lines (which are your notes) from the step sequencer to open up the **Piano roll** window. You can also copy and paste your Piano roll data between channels or between patterns. In this manner, you can copy your exact data into a new channel with a new sound and test options for how you want the mood of your song to progress. For example, let's say you made a great piano roll riff while using a synth patch. At that point, you can copy and paste the data and test out new sounds like a violin, piano, or any sound you think may enhance your project.

There's more...

Please remember to experiment with the top three options in the upper-left-hand corner of the **Piano roll** window. These are **Options**, **Tools**, and **Snap to grid**. Look at the FL Studio hint bar when hovering your mouse over these options. There are a plethora of options here, including the **FILE** option, where you can import MIDI files. This means you can import note data from a variety of sources, including websites such as `http://mididb.com/`. The MIDI notes you import will be imported as note data in the **Piano roll** feature, and you can specify how you want them to sound by using virtual instruments in FL Studio. You can import popular songs to review the notes that were used and it can be a tremendous learning tool. You can also use this when composing cover songs and remixes. The possibilities for working with MIDI files and importing their data into the FL Studio **Piano roll** feature are enormous.

The **Snap to grid** option will adjust the length of your grid within the **Piano roll** window. The entries, drawing, and paint buttons will snap to the grid you specify here. This can be handy when you are working with percussion and hi hats and when you want to have them sound very fast. The way a rock drummer does triplets is the basis of how you can manipulate the **Piano roll** feature. This is almost like another adjustment of the beats per bar for this pattern on the step sequencer. The snap to grid within **Piano roll** tells FL Studio how to break down the pieces and parts of each beat. This can give you more control and tweaking ability. For example, when adjusting the **Snap to grid** option to **1/6** steps, you will find how small each step can be in **Piano roll**. This is not limited to hi hats and percussion; this is for any type of audio you have in **Piano roll** and the creative possibilities are endless. It can be a little bit tedious to paste in all of your notes on a 1/6 step, so you can copy and paste a small section then continually double your selection. You can also save the score as **...** in the **FILE** menu on the **Piano roll** window to save your particular note arrangement.

There are also many options within the **Tools** button, including but not limited to the **Quick Chop** and **Chop...** buttons. You may select any note on **Piano roll** or select all notes with *Ctrl + A* followed by any chop option to see how it adjusts your notes. This can be handy for hi hats in your music production. Another handy option is to explore the **Chord** option in the **Piano roll options** button. You can find these options by clicking on the **Piano roll options** button (a small triangle in the upper-left-hand corner) as shown in the following screenshot:

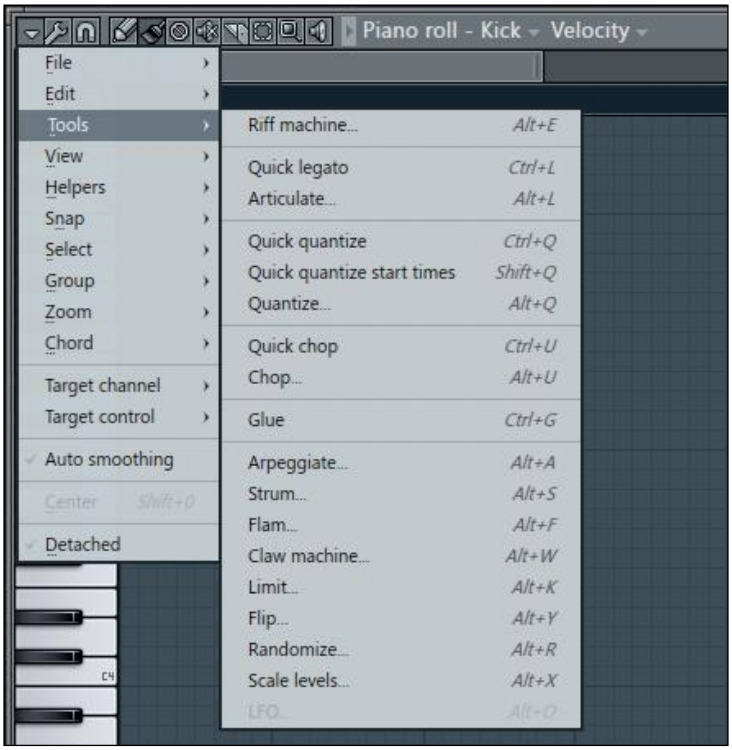

Fig 4.32

You can select the chord you want to use and with a single mouse click your chord will be pasted into the **Piano roll** window. The **Strum** option within the **Tools** options can humanize your chords. When you are physically playing your performance with a keyboard or MIDI controller, your performance may be a tad off in time due to human error or latency time on your computer. If you notice that your performance is a little bit shaky but the basic idea is laid down, you can use the **Quantize...** option. This will snap your performance back in time with your grid. Just like how some people enjoy using physical faders and knobs, using a MIDI keyboard is preferred by many people to record/play in their notes instead of clicking with a mouse. Please look at the many options to tweak your **Piano roll** data under the **Tools** button.

See also

- The *Working with rhythm and percussion* recipe
- The *Adding virtual instruments* recipe
- The *Introducing the step sequencer* recipe in *Chapter 3*, *Working with Step Sequencer and Channels*
- The *Using Patterns to Build Your Song* recipe in *Chapter 5*, *Using the Playlist*