8

Exporting and Rendering Your Project

In this chapter, we will cover:

- Exporting an MP3 or WAV file
- Exporting your audio stems
- Highlighting your song in the playlist
- Rendering files
- Exporting and reimporting a WAV file

Introduction

Exporting your music project means that it will be rendered down to one single audio file where you can play it back on many types of music players and systems. MP3 files are highly compressed and usually chosen for online streaming. WAV files are of a higher quality and are used before burning your song onto a CD or when you send your audio file(s) to a sound engineer.

Exporting an MP3 or WAV file

Exporting your finished song as an MP3 or WAV file is the final step to hearing your song play back in your car, entertainment systems, phone, tablet, any music media device, or even hearing it while it streams online.

Getting ready

In order to export your song as an MP3 or WAV file, you will want to have some type of data in your FL Studio Playlist.

How to do it...

1. Highlight the data in your FL Studio playlist by pressing *Ctrl* + *A*. This will select all of the patterns and data in your playlist, as shown in the following screenshot:

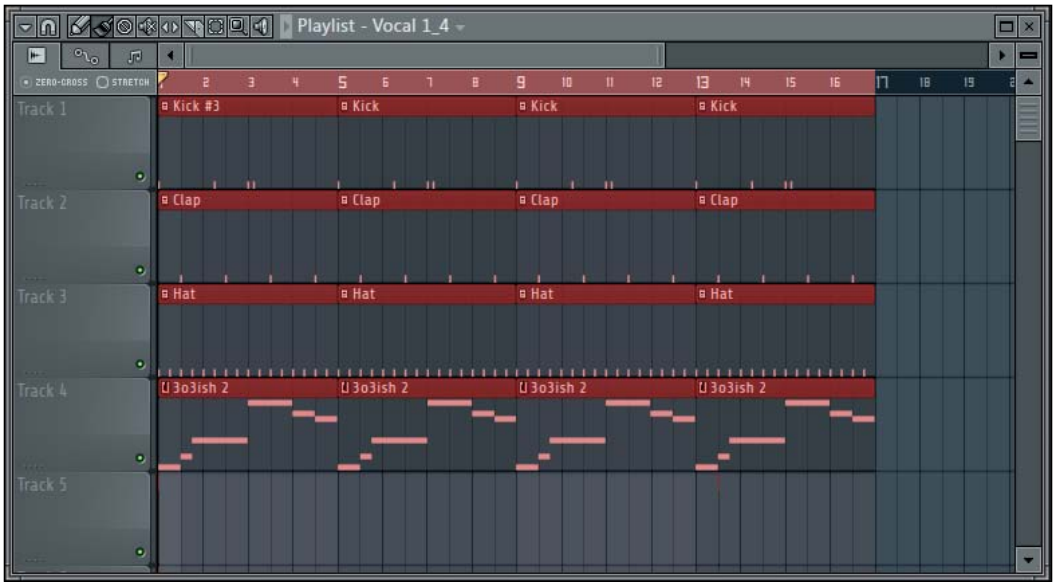

Fig 8.1

2. Select **FILE** from the main FL Studio window, hover your mouse on **Export**, and select **MP3 file...**, as shown in the following screenshot:

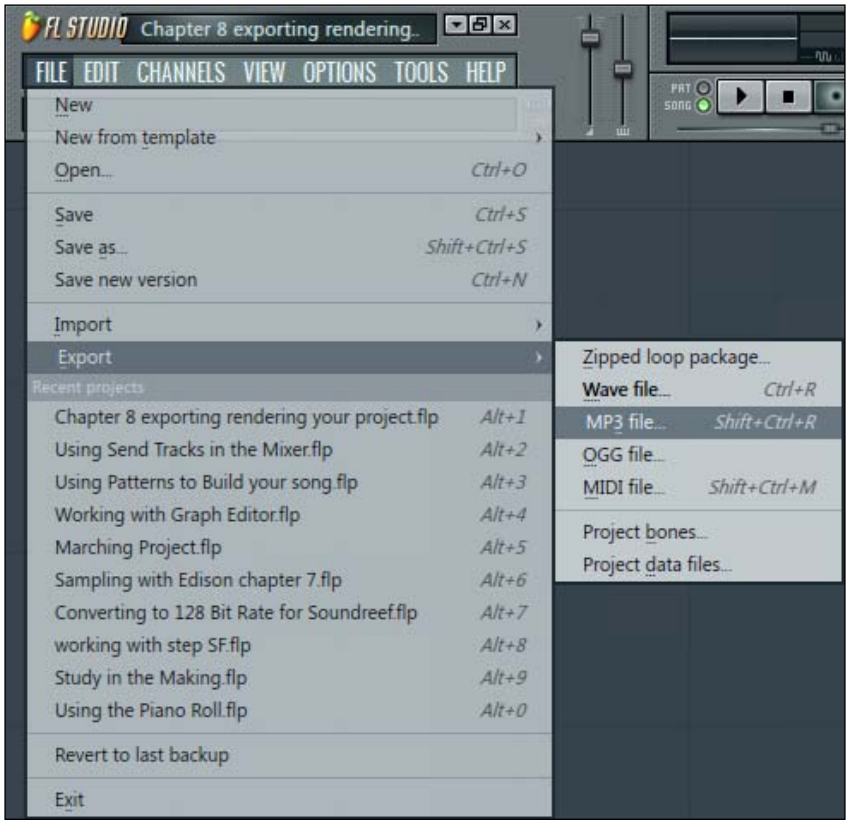

Fig 8.2

3. It will then bring up the **Save As** box, where you can name your file and specify the exact place you want it to appear on your computer. You will then click on **Save**.
4. The rendering box will then appear as shown in the following screenshot. Click on **Start** to start rendering.

Fig 8.3

5. You will then see the progress of your rendering process. This can take anywhere from a couple of seconds to a couple of minutes, depending on the data inside of your FL Studio project. When it reaches 100 percent, the render box will disappear and you can find your audio file in the location you saved it to earlier.
6. You can now play your song through your computer because it is an MP3 file. The following screenshot shows the generated music file icon:

Fig 8.4

How it works...

As seen in the previous process, exporting your file to an MP3 turns your FL Studio project into a file you can actually play back outside of FL Studio. Try to get your project to sound as good as possible inside FL Studio, but know in the back of your mind that it may sound better or different once exported. Sometimes, it may actually sound worse when the depth is lost due to working with loads of plugins and filters. Remember to see your **MP3 / OGG** setting in the **Output format(s)** section on your rendering dialog box. You should use the slider to specify what bitrate will be exported. Generally, you should be using **128kbps**, **192kbps**, or **320kbps**. Keep an eye on the **Info** section of your rendering box because your disk space will increase as you increase the bitrate.

Going with 128 kbps will result in a lower quality MP3 file that can sound decent when playing back. If you have numerous virtual instruments on your project, 128 kbps may sometimes not render all of your instruments properly and may induce pops and clicks on your actual rendered file. 192 kbps is the safest bet for all types of music projects, and will result in good quality no matter where you play your rendered file. 320 kbps is the highest MP3 setting and quality available in FL Studio. You may be able to hear a difference between 192 kbps and 320 kbps, so it's all up to your ears and comfort level.

In order to export a single rendered WAV file, you may simply click on **Wave file...** in the screen depicted in *Fig 8.2*. The current **Sample rate (Hz)** setting used in conjunction with the WAV file export can be found in your **AUDIO** settings, as shown in the following screenshot:

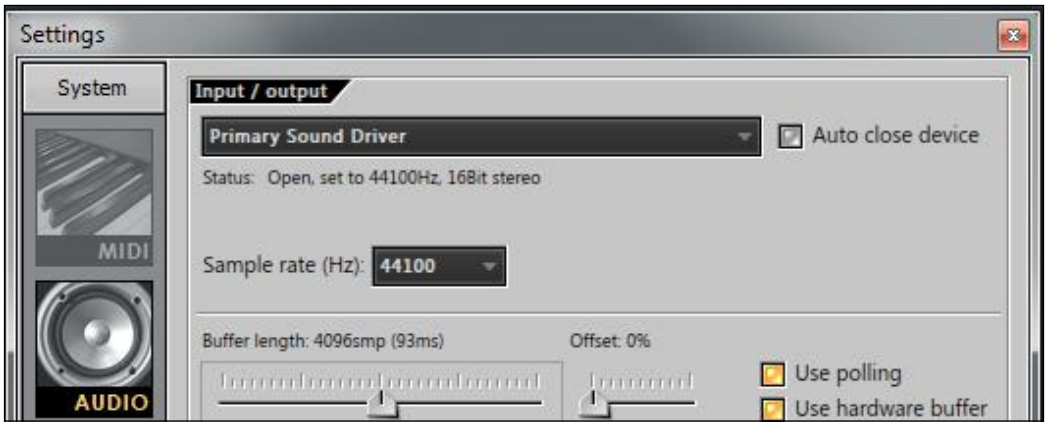

Fig 8.5

The optimal setting is to keep your sample rate at 44,100, which is 44.1 kHz, and render as a 16-bit WAV file in the **Depth** area of your render box. This is equal to the CD audio format and is the standard method. You can also specify 24-bit if you are sending your project to an engineer during the mastering process or if you want to continue working on your projects in other types of audio editors and DAWs. When working in a professional production environment, 16-bit WAV files are the standard.

There's more...

FL Studio does not actually burn audio files to CDs. You will need third-party burning software such as Roxio, iTunes, or Windows Media Player and a CD-R format CD. You may also save MP3 files or WAV files to an external hard drive, USB thumb drive, or a CD-RW (for burning and playing back, you must use a CD-R format). This will back up your files so you can have a physical back up or transfer them to other computers. Additionally, you can attach MP3 files in an e-mail. If your e-mail cannot handle the size of the files, you can use a service such as the one available at `www.wetransfer.com` in order to send your files, or cloud sharing options such as Dropbox and Google Drive. You must remember that to actually hear your song in a car or entertainment system, you will be using a CD-R.

Also, be conscious of the current sound card device on your computer and in FL Studio. If the file is not playing after you save it to your desktop or any other location, you may need to close FL Studio first.

See also

- The *Exporting your audio stems* recipe
- The *Knowing your sound cards or audio interfaces* recipe in *Chapter 1*, *Configuring FL Studio*
- The *Using patterns to build your song* recipe in *Chapter 5*, *Using the Playlist*
- The *Understanding master tracks and loud wars* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*

Exporting your audio stems

Exporting your audio stems allows you to render your individual mixer tracks (FX/insert slots) as individual stems. The audio stems will track out as 16-bit WAV files and will span as long as your selection in the FL Studio playlist.

Getting ready

In order to export your mixer tracks as individual pieces, you will need to have your given channels sent to mixer/INS slots in the FL Studio Mixer. This was discussed in the Sending a channel to a mixer slot *Chapter 3*, *Working with Step Sequencer and Channels*, and Using patterns to build your song *Chapter 5*, *Using the Playlist*.

How to do it...

1. Send your channels to the mixer slots in the FL Studio Mixer and paste your patterns into the playlist. An example of the patterns we are working with can be seen in the following screenshot:

Fig 8.6

2. Right-click on the small green light located on the master track in FL Studio Mixer, which will mute all tracks except for the master. Then click on all the mixer tracks you want included in the export. The small green circle is the **Mute / solo** button.

Fig 8.7

3. From the topmost main window in FL Studio, go to **FILE** | **Export | Wave file...**.

4. You will now have the opportunity to save your stems to a folder or new folder you create, as well as name the root for each stem. In the following screenshot, we are saving our stems to a folder titled `Audio stem Export Cookbook` and our root name is `Recipe Man`:

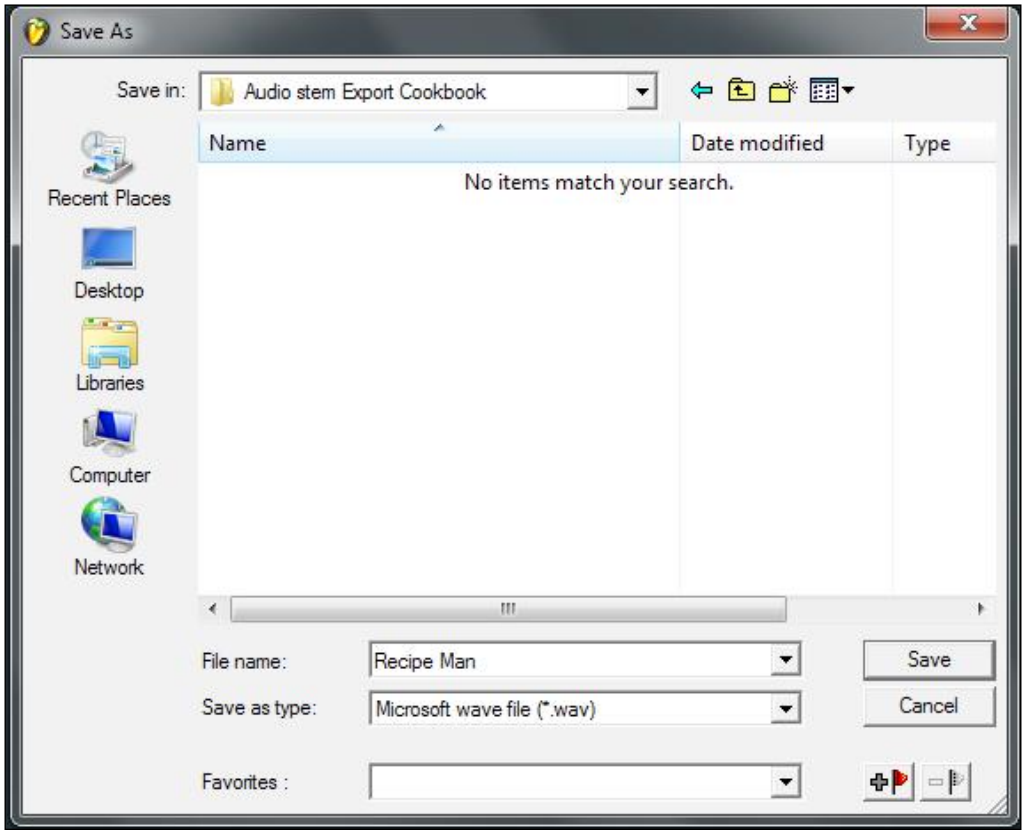

Fig 8.8

5. Click on **Split mixer tracks** in the rendering box and then on **Start** to render your wave stems. Notice that when you hover your mouse on **Split mixer tracks**, the FL Studio hint bar reads **Batch export mixer tracks into separate wave files**. The following screenshot shows the rendering progress:

Fig 8.9

6. Your audio stems will now be located in the folder you previously specified and will automatically generate an underscore and mixer track name (taken directly from your mixer slot names) for each file. Your root name will stay intact on every single file.
7. When you preview each track and play it on your computer, you will find each track spans the length of your selection in the playlist.

How it works...

Note that we have highlighted our selection by pressing *Ctrl + A* while on the FL Studio playlist, as shown in *Fig 8.6*. On the screen depicted in *Fig 8.7*, we are double-checking our mixer slots and making sure all of our channels from the step sequencer are sent to a mixer slot. We have also renamed eight of these mixer slots. **INS 1** is **Kick**, **INS 2** is **Deep Clap**, **INS 3** is **Hi Hat**, **INS 4** is **Virtual Synth**, **INS 5** is **Cabasa Shaker**, **INS 6** is **Gong**, **INS 7** is **End Snare**, and **INS 8** is **Cuica**. The track names seen in *Fig 8.6* in FL Studio Playlist have no bearing on any of this. You can, of course, rename the track names that are located on the playlist on the screen depicted in *Fig 8.6*, but it will only be for your own organizational purposes. When we export mixer tracks, they are correlated with channels sent to an FX / mixer / INS slot in the mixer slot and the length of time associated with each one.

Clicking on the **Split mixer tracks** button in the rendering box tells FL Studio that you will be exporting each mixer track in the FL Studio Mixer as separate files (all of the ones with a green light on the **Mute / solo** button). You can then take your stems to an engineer, save them on a USB or thumb drive, store on a CD, use them in remixes, share in collaborations, and so on.

If you forget to specify the exact mixer tracks you want in the export, your export will have all 99 mixer slots rendered. If necessary, you can delete the ones you don't want. Sometimes, your selected slot (the lone track to the right of your send tracks) will be exported with your stems. This is due to the fact that it still had a green light engaged on the **Mute / solo** button. If you don't want to include it, click on the green light to deselect it.

There's more...

You can send more than one channel to the same mixer slot; just know that when you render your audio stems in this fashion, both channels will be rendered into one stem. This technique is very useful for a musician who would rather layer, mix, and compress their kicks/percussion before handing out a final mix of stems to a mastering engineer.

It is also up to your own workflow and creative end vision if you want to include any effects on the mixer effect chains. If you leave everything completely dry, with no effects whatsoever, it gives your engineer the opportunity to make your mix outstanding. Other times, you might want to include some effects because you like your mix a certain way. The engineer's job is to then polish, complement, and enhance your sound. Generally, you will want to leave headroom for your mastering engineer so he or she can significantly increase your song's volume (if you are joining loud wars!).

Exporting stems can help with backing up your audio files in case your computer goes bad or your hard drive corrupts. Try to back up everything three times. Better safe than sorry!

See also

- The *Exporting an MP3 or WAV file* recipe
- The *Rendering files* recipe
- The *Sending a channel to a mixer slot* in *Chapter 3*, *Working with the Step Sequencer and Channels*
- The *Using patterns to build a song* recipe in *Chapter 5*, *Using the Playlist*
- The *Adding effects and your effect chain* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*

Highlighting your song in the playlist

Highlighting your song in the FL Studio Playlist allows you to render down and export your musical production.

Getting ready

To highlight your song (the highlighted section will turn red), open the FL Studio Playlist by hitting *F5*. You should have patterns and musical data that populate the playlist, unless you are actually recording an external audio such as vocals, violin, guitar, or turntables. Highlighting your song can serve two very different purposes: getting ready to export, or getting ready to record a specific chunk of time for vocals or instruments.

How to do it...

1. Click inside of the playlist and hold *Ctrl + A* and you will see a window as shown in *Fig 8.10*. It will turn red in the selected area. You also want to have your snap settings set to **Cell**, as shown in the following screenshot:

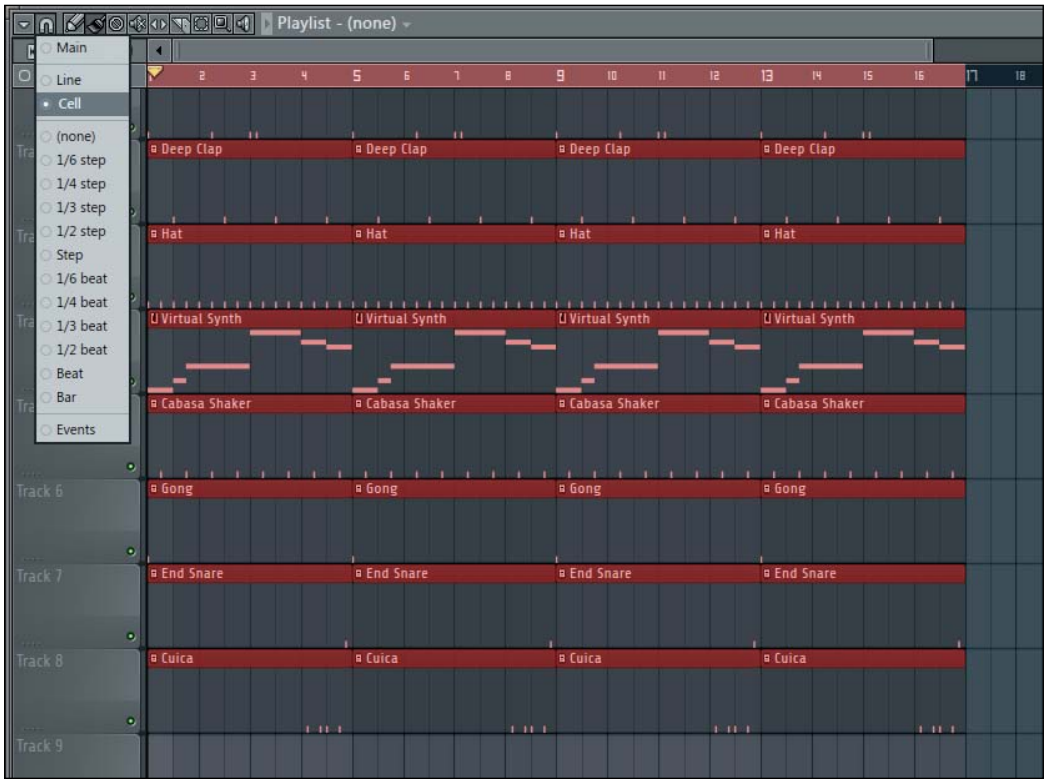

Fig 8.10

2. Go through the same steps as discussed in the *Exporting an MP3 or WAV file* recipe of this chapter. Have a look at the **Looping Mode** drop-down box, shown in the following screenshot:

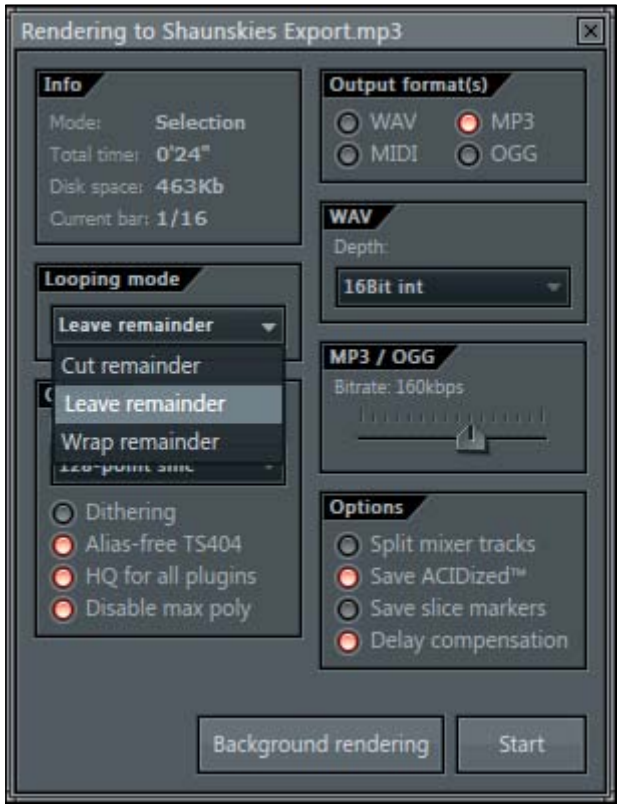

Fig 8.11

3. The following screenshot shows what the looping mode section signifies:

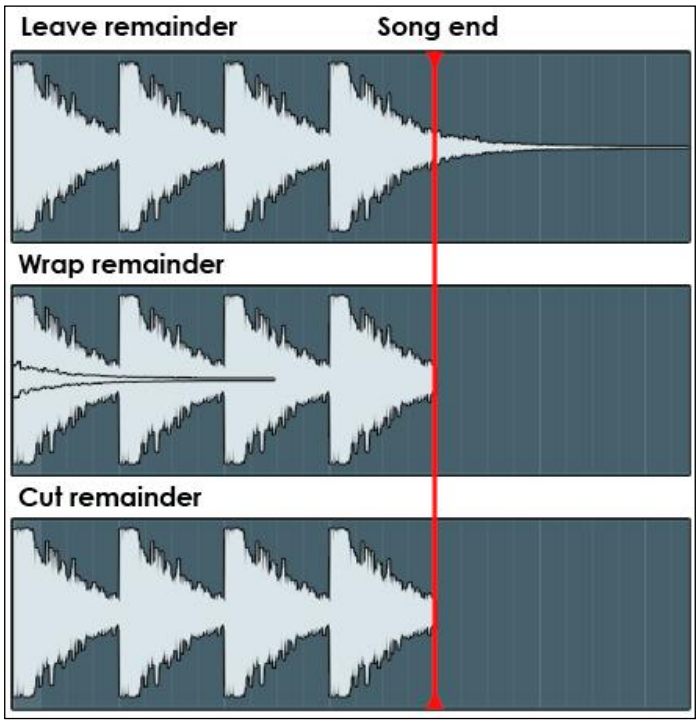

Fig 8.12 – Picture courtesy FL Studio help file

4. Name your music file, specify your file location, and click on the **Start** box on your rendering dialog box.

How it works...

The **Leave remainder** portion is the default setting that allows your reverb or instruments to tail off past the final bar or cell in the playlist. **Wrap remainder** wraps any decaying sound at the very end of the song onto the beginning. **Wrap remainder** is good for loops with effects. **Cut remainder** cuts your song off at the final cell, bar, beat, column, or measure.

In *Fig 8.10*, the track ends directly before bar 17, hence it is 16 bars. Remember that you can use the FL Studio Playlist to cut your audio samples, data, and patterns. In fact, many people like to produce, slice, and edit their playlist audio as opposed to their step sequencer data.

You may do this by selecting **Slice tool** at the top of the **Playlist** window, having a proper snap setting, and slicing down, as shown in *Fig 8.13*. The blue slice is directly correlated with your **Snap to grid** setting and will form a perfect vertical line on the columns inside of your playlist, which are the columns of your **Snap to grid** setting and how close or far you choose to zoom. The columns in the following screenshot are your beats per bars:

Fig 8.13

Once you let go of the blue slice line, it will slice the audio or pattern data in your playlist. You can then use the **Paint** or **Draw** tool next to each little button on a pattern. In *Fig 8.14*, we clicked on the dot next to the **Cuica** pattern. When slicing audio files, selecting Make unique will make a new channel in the step sequencer. When slicing patterns and selecting **Make unique**, it will make a new pattern.

This is also a great way to slice and delete things you do not want included in your song, as well as copy and paste patterns you want to repeat. It is for this reason that many people enjoy using the **Slice** tool in their productions—as a method to come up with creative ideas and experiments. As far as inserting silence, many radio-ready songs insert a quick silence at certain parts/beats/bars of the song. This acts like an effect that cuts out all audio, and adds emphasis to your vocal or groove.

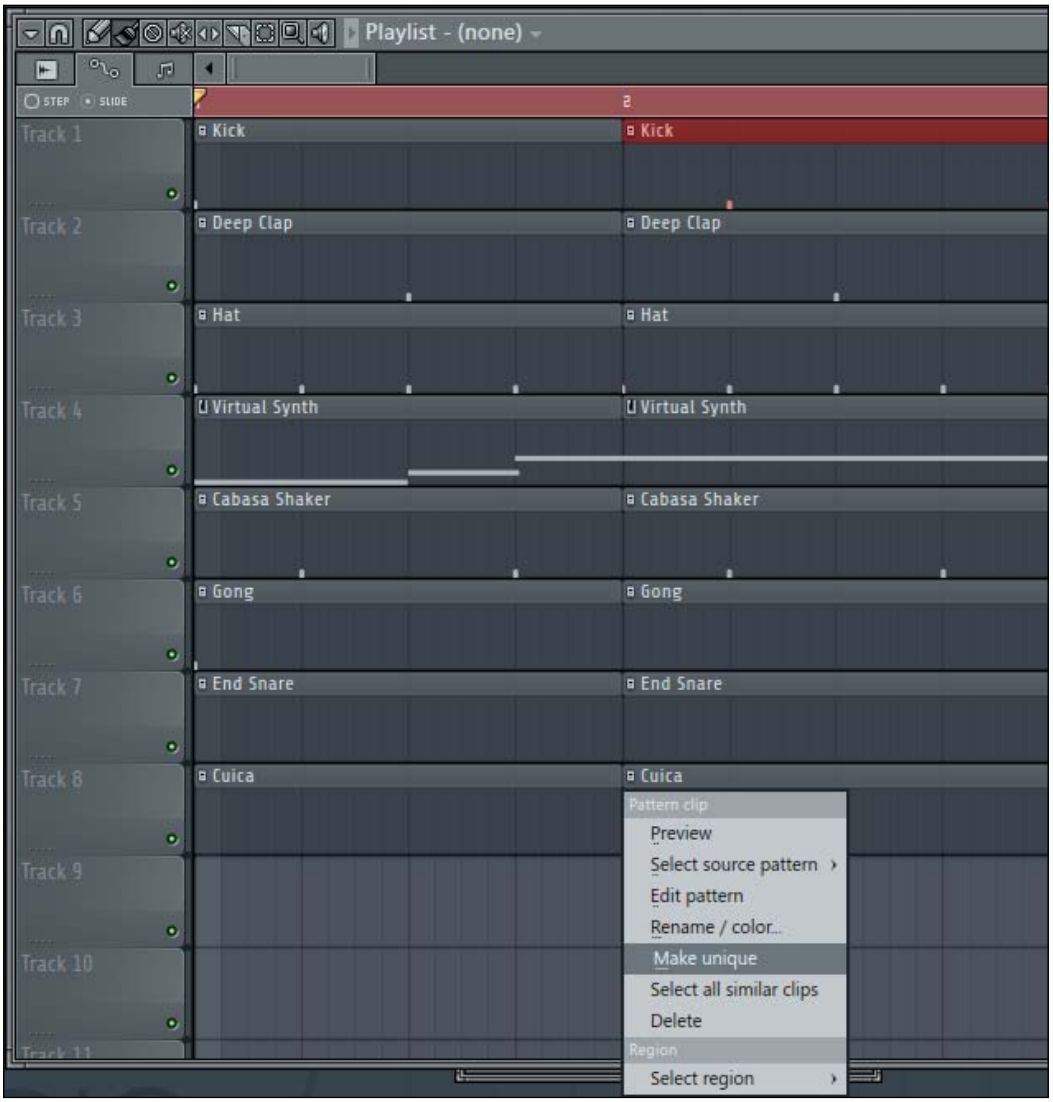

Fig 8.14

There's more...

There are other ways to highlight your song in the playlist and they are listed as follows:

- You can also zoom in and select different **Snap to grid** settings. When you experiment with the snap settings, as shown in *Fig 8.10*, you will find the smaller the setting, the more the columns in the playlist cells get narrow, and you are then able to zoom in and select small durations of time.
- You can also highlight the sections you will be recording vocals onto. This is an invaluable tool that helps in selecting your recording length for an intro, verse, chorus, bridge, or outro.

See also

- The *Rendering files* recipe
- The *Exporting and re-importing a WAVE file* 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*
- The *Adding effects and your effect chain* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*

Rendering files

Besides exporting your song to be played as an audio file in any type of media device or streaming it online, there are export options that allow you to back up your project work. The export files that help back up your project are `Project bones`, `Project data files`, and `Zipped loop package`.

Getting ready

To get started with exporting your project bones, you will simply need to have a music project started or completed in FL Studio.

How to do it...

1. Browse to the **FILE** menu, hover your mouse over **Export**, and select **Project bones...**.

2. The **Export project bones** window will then appear, where you can specify the location you want to save your project bones to. You can also create a new folder (using **Make New Folder**) on the **Project bones** window, as shown in *Fig 8.15*. Click on **OK** once you have your location.

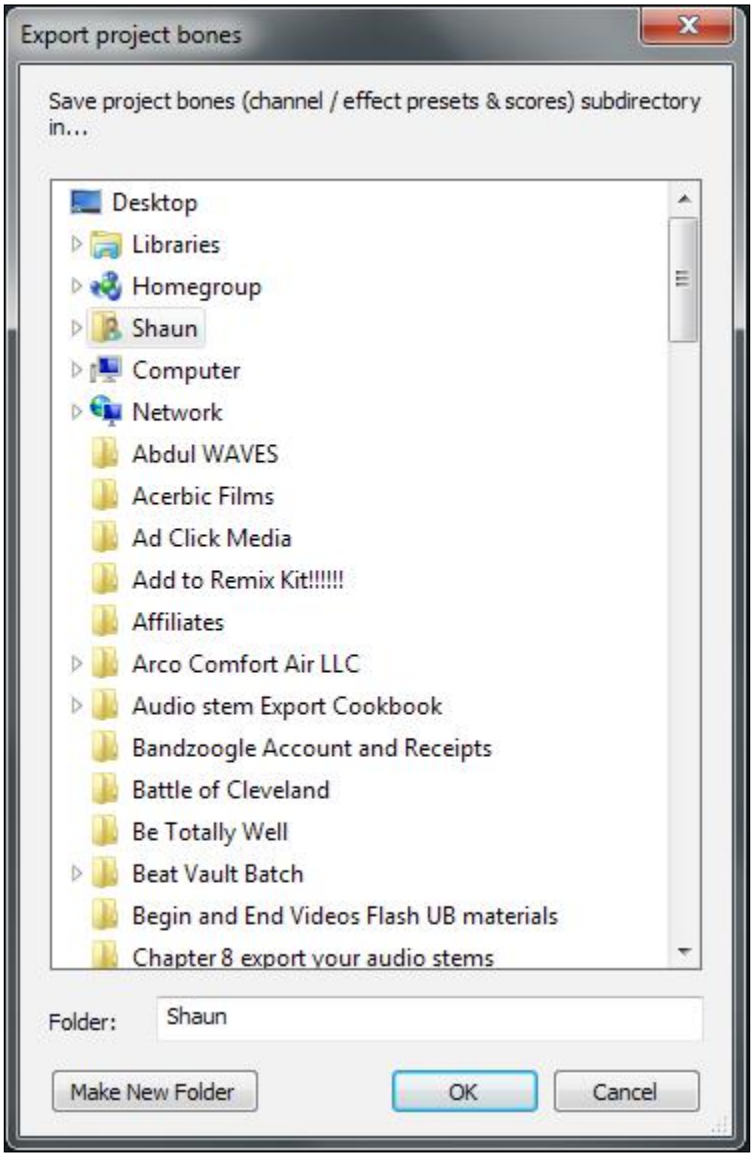

Fig 8.15

3. Your folder will then incorporate all of your project bones. In *Fig 8.16*, we have created a folder called `Export the Horse`, which is located on our desktop. FL Studio automatically gives your project bones the same name as your FL Studio project. In this example, the `Project bones` folder is called `Chapter 8 exporting rendering your project` (inside of the `Export the Horse` folder), as shown in the following screenshot:

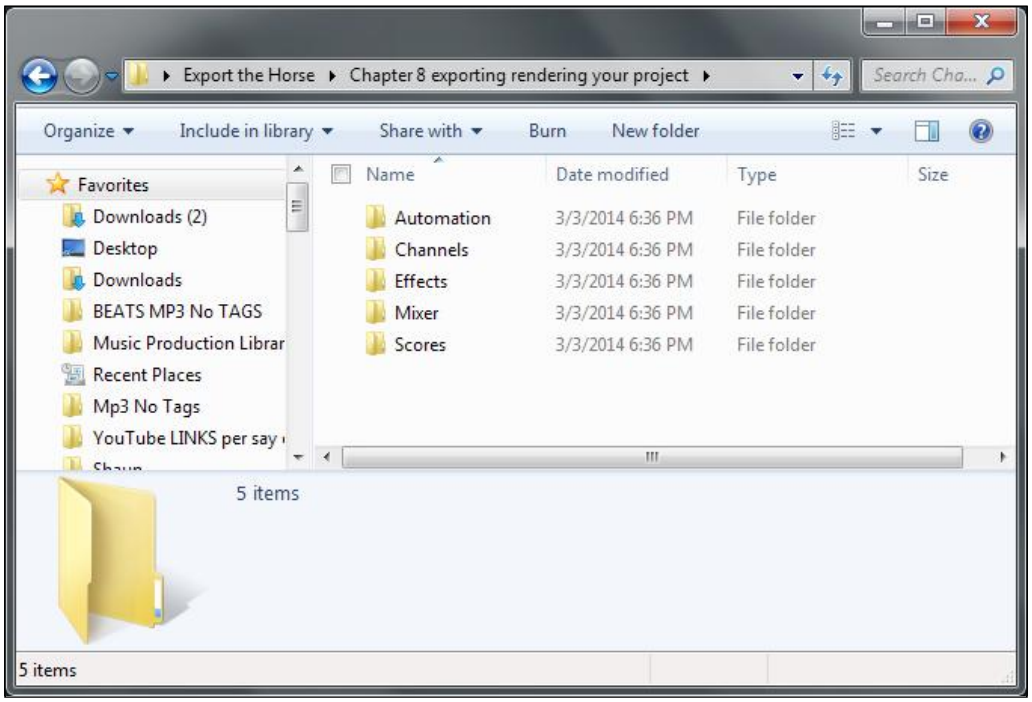

Fig 8.16

4. FL Studio will also automatically create a folder in the browser if you have saved your project bones on your desktop. This works similarly to your patches folder for FL Studio, but this method opens up your desktop folders in the FL Studio Browser, as shown in the following screenshot:

Fig 8.17

5. In the preceding screenshot, we opened up the `Desktop` folder directly from the FL Studio Browser, and we can see that our `Export the Horse` folder includes the exact same data and settings as seen in *Fig 8.16*.

How it works...

Exporting your project bones exports all of your **Automation clips**, **Channels**, **Effects**, **Mixer** settings, and **Scores** in one consolidated folder. This is handy for merging your components from one project into another. You can drag these directly into existing projects from your `Desktop` folder. You can also load the mixer track states, as reviewed in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*.

There's more...

After hovering your mouse on **Export**, you also have an option to export **Project data files...**. This option will export all your samples inside of the step sequencer as well as your TS404 shapes, **SimSynth**/**DrumSynth** presets, and other plugin data used in your current project. This is handy for a backup or to use in other projects.

There is an option to export as a zipped loop package. This will create a ZIP file whose contents include your `.flp` (FL Studio project file) and the audio files used in your channels. This can be thought of as a consolidation of your `.flp` file and your project data files.

There are also options on the **FILE** menu to **Import** or **Export** a MIDI file. You also have the option to import or export files in MIDI format on every Piano roll in FL Studio. Importing MIDI data will automatically populate your channel with note data. Once your MIDI data is inside the Piano roll, you can change the sound or edit the note data to anything you want! This is a great way to learn a tremendous deal on how popular songs are structured. You can also use MIDI files for remixing or karaoke. A great source for MIDI files is `www.mididb.com`. Remember, MIDI is not audio; it is the location, length, and velocity of your notes. Exporting MIDI will allow you to have a backup of your Piano roll score data, collaborate with other musicians, or use it in live shows.

See also

- The Exporting your audio stems recipe
- The *Getting new sounds in the Browser* recipe in *Chapter 2*, *Using Browser*
- The *Introducing the step sequencer* recipe in *Chapter 3*, *Working with Step Sequencer and Channels*
- The *Using the Piano roll* recipe in *Chapter 4*, *Building Your Song*
- The *Getting the best out of your mixer* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*

Exporting and reimporting a WAV file

Rendering your completed music project before mastering into a WAV file allows you to render down all of the various elements of your song into one consolidated file. This will free up the processing load placed on your computer, especially if your project includes many virtual effects in your various effect chains. This is basically the same thing explored in the *Exporting an MP3 or a WAV file recipe*, but in this case, we are exporting an extremely high quality WAV file directly before the final stage of mastering. If we do not want to do it this way, we can use the master track on our FL Studio Mixer in our existing project, but only if your computer can keep up with the processing load.

Getting ready

In order to get ready to use a WAV file to master, your entire music project should be complete.

How to do it...

1. Highlight your song in the FL Studio playlist as shown on the screen depicted in *Fig 8.18*. You may do this by pushing *Ctrl + A*. Your song should then be highlighted in red.

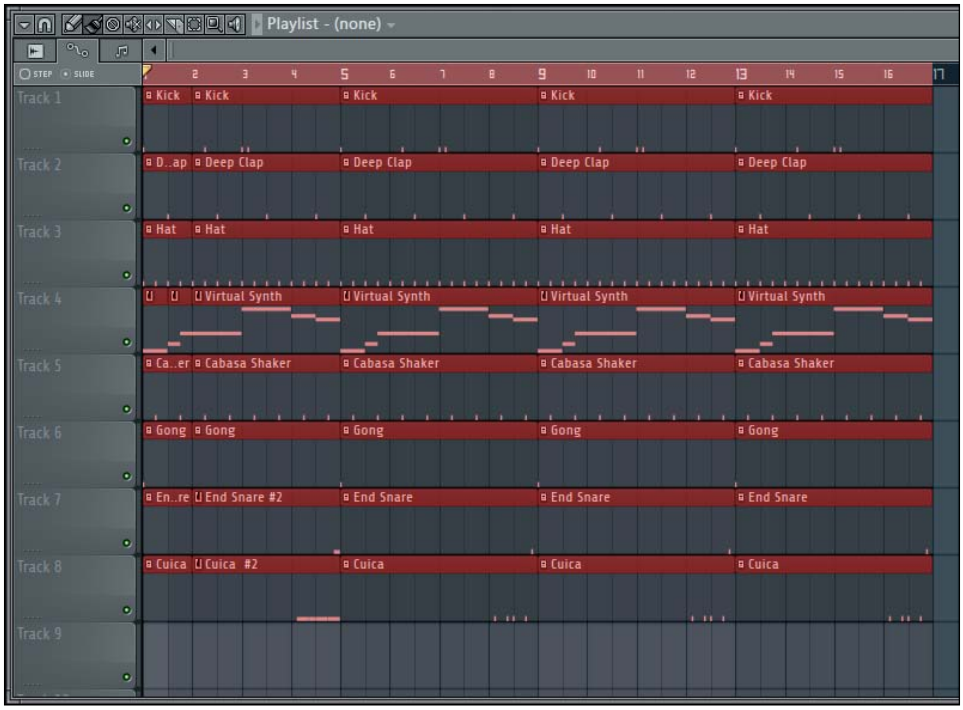

Fig 8.18

2. Select **FILE** from the main FL Studio window, hover your mouse over **Export**, and select **Wave file...,** as shown in the following screenshot:

Fig 8.19

3. You will then be able to name your export and pick a location on your computer.

4. Next, select **24bit int**, as shown in *Fig 8.20*, and click on **Start**. In this example, we have named our song `Clapmatic`. This will render your project.

Fig 8.20

5. Start a brand new empty FL Studio project as shown in *Fig 8.21*. Select **FILE** and then **New**.

Fig 8.21

6. Click on the **Maximize / restore** button, which is directly next to the **Minimize** button at the top of the main window of FL Studio. Resize your FL Studio window in order to drag your WAV file into the FL Studio playlist. The following screenshot shows the resizing options:

Fig 8.22

7. Drag your rendered WAV file directly into the FL Studio Playlist. You could also drag it from the FL Studio Browser.
8. Your audio file will now populate the playlist as shown in *Fig 8.23*. Go to the **SONG** mode in FL Studio, drag your file all the way to the left (in order to set an immediate start time), select your original **TEMPO**, and master your project using the master track effect chain in the FL Studio Mixer.

Fig 8.23

How it works...

Usually, if you do not export your file before mastering, all of your plugins and data are running at the same time, and taking up various mixer slots in the FL Studio Mixer. However, in this manner, there will only be one mixer track running—the master track that is playing your WAV file! Also, the WAV file was exported at 24-bit, making it super high quality before the mastering stage! If you want your playlist to line up with the tempo of your exported project (the same project you are working with now), just set your FL Studio main tempo to the exact number as your rendered project. In this way, you can use the **Slice** tool to further edit your song if necessary. You will want to review the *Chapter 6*, *Using the FL Studio Mixer and Recording Audio* effect chain recipe and make your master track sound remarkable. You may use the limiters and compressors within FL Studio, as well as third-party sources such as Waves and iZotope. When you are done, you can then export the file as an MP3 or 16-bit WAV file. Remember, a 16-bit WAV file with a 44100 Hz sample rate is the standard setting for audio CDs. The MP3 format is useable for Internet streaming.

You may also use this method for resampling. If you are working with 10 virtual synths that are sucking your PC's processor dry, export them as WAV files and reload them. Be sure to delete or mute the original virtual channels as you now have rendered down wave files. However, you should also save your project as a new version so you don't completely lose any MIDI data from your virtual channels.

There's more...

Remember, your file is now its own channel in the step sequencer! You can look at your channel setting and possibly use the **Normalize** or **Reverse** functions. Remember to save your current project so you keep everything organized. You can also import or drag your WAV file directly into Edison for further processing.

There are no rules to working with this exported file. Sometimes, you will want to practice these exact steps before recording vocals. In this way, you can record vocals on a rendered WAV file without worrying about too much load placed upon your computer. You can even continue to work on your song or add in new elements for remixing.

See also

- The *Comparing patterns and audio* recipe in *Chapter 5*, *Using the Playlist*
- The *Using markers and snap* recipe in *Chapter 5*, *Using the Playlist*
- The *Viewing the playlist* recipe in *Chapter 5*, *Using the Playlist*
- The *Adding effects and your effect chain* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*
- The *Understanding master tracks and loud wars* recipe in *Chapter 6*, *Using the FL Studio Mixer and Recording Audio*