

Chapter 7

Recording Vocals and Acoustic Instruments

In This Chapter

- ▶ Choosing a microphone
 - ▶ Recording with microphones
 - ▶ Improving the sound of recordings
-

This chapter cuts to the heart of audio recording — using a microphone or microphones to record vocals and instruments. As usual, Apple has done much of the heavy lifting already by including several dozen presets that you can use to change the sound of your recorded vocals and instruments. This means that you, as the recording engineer, don't have to worry as much about what type of microphone you should use to record which instrument or how much echo to apply to a grand piano, for example. The presets do it all for you — and quite nicely I might add.

And so, when you record with GarageBand, you can use almost any microphone that you have handy and then apply a preset to get a more professional and polished sound out of it.

That said, the type of microphone that you use does have an effect on the quality of your recording. And some mics work better for vocals and instruments than others. You can find all the details about choosing a mic in Chapter 2. In this chapter, you find out how to set up and position microphones for recording, and then I offer some advice, tips, and hints about making better recordings.

Before you start though, keep in mind that recording with microphones is an art, a science, and a skill; don't expect to master it all at once. So many things affect the sound that you record; it's going to take time for you to understand how these factors interact.

There's a lot to cover, so let's rock.

Getting Ready to Record

I'm going to assume that you've got some kind of microphone at hand and are ready to commence recording with it. But, before you record a single note, you have a few things to attend to if you want to end up with great-sounding tracks.

The two things that you need to master first are microphone placement and level setting. If you nail those two, you'll get better results.

At this point, I wouldn't recommend spending a whole lot of time trying to deaden the room (see Chapter 2 for details); rather, I suggest that you get the microphone placed and record (or monitor) the sound first. When you hear it set up the way that you plan to record, you can decide whether you have too much room sound coloring the track and adjust accordingly.



I guarantee that you'll record better-sounding tracks if you read the rest of this chapter than if you don't.

Setting up your mic and recording track

When your room setup is as good as it gets, it's time to set up your mic(s). Perhaps the most important factor in what ends up being recorded is the position of the microphone during recording. Your job is to position the microphone where it sounds the best to your ear. But to do that, you need to make the microphone "live" so that you can hear the effect of repositioning it.

To set up your mic so that it's live and then create the track to record on, follow these steps:

1. Mute or disconnect your speakers.

Most Macs have a mute key on the keyboard as well as a volume control slider in the menu bar, which you can slide to its lowest setting to mute your speakers.



If your speakers are connected to an audio interface that's connected to your Mac, you're on your own as to how to mute your speakers. Probably by turning the audio interface off (if you can; some bus-powered interfaces are always on as long as they're connected to a USB or FireWire port on your Mac).

2. If your Mac has a built-in microphone, as most modern Macs do, choose Apple Menu⇨System Preferences, click the Sound icon, and then click the Input tab. Now make sure that Internal microphone is *not* selected for input.



Should you not follow Steps 1 and 2, you will hear awful high-pitched howling, known as *feedback*, as soon as you monitor your real instrument track.

You have to tell GarageBand which input and output device to use in the Audio/MIDI Preferences pane. If you haven't done that or have selected the wrong input or output device, you may not be able to hear or record until you choose the right input and output. See Chapter 3 for details on setting your preferences.

3. **Connect your headphones to your input source, which is often the headphone jack on your Mac.**
4. **To double-check that you won't sear your ears with feedback, test your setup *before* you connect your mic by playing an existing track in GarageBand.**

If you hear the track through anything but the headphones, review the preceding steps to mute or disconnect the speakers (or your Mac's built-in mic) before you continue.

When the only sound that you can hear comes out of the headphones, you're good to go.

5. **Open a GarageBand project, or create a new one.**

Choose File⇨Open or File⇨New or use the shortcuts ⌘-O and ⌘-N, respectively. See Chapter 4 for details on creating new projects.

6. **Create a new track by choosing Track⇨New Track or using the shortcut ⌘-Option-N, and click the Real Instrument tab at the top of the New Track dialog box that appears.**
7. **Choose the appropriate instrument category in the left column.**

You want to choose the category that best describes the instrument or vocal part you're recording. Here's a breakdown of the different categories:

- **Band Instruments:** Choose this for recording horns (trumpet, trombones, saxophone), flutes, violins, or other orchestral instruments you might find in a performing band.
- **Basic Track:** Select this to record a basic track with no effects applied. You will rarely want to use a basic track without effects in a song. More likely you would choose this category to start from scratch and specify and apply all the effects for the track yourself.
- **Bass:** Select this category to record instruments such as a bass guitar, string bass, electric string bass, and so on.
- **Drums:** Pick this category for (what else) drums or percussion instruments.

- **Effects:** Choose this category to use strange treatments that make your voice or instrument sound strange, weird, or unearthly.

My favorite effect preset is Telephone Lines, which makes your voice sound like it's coming through the earpiece of a very bad telephone. Way cool.

- **Guitars:** Use this category to record your guitar — electric (connected directly or played through an amp and captured with a microphone, as explained in Chapter 8) or acoustic (played into a microphone).
- **Vocals:** Select this category to make your vocals sound like a million bucks.

8. Choose a preset for that category in the right column.

The presets are sub-categories. Choose the one that best describes the instrument or vocal you're about to record.



You can play and pause your song with the New Track dialog box open, like the Track Info window. So you can audition many presets before you click the OK button.

9. Select an input channel from the Input pop-up menu. In plain English, this means selecting the port or device that that instrument is currently plugged into.



If you plugged a microphone or instrument directly into your Mac, the correct choice is almost always Channel 1. But if your mic or instrument is plugged into an audio interface, choose the channel that you're plugged into on the device.

10. Select either the Mono or Stereo Format radio buttons below the Input menu. These buttons allow you to choose between recording in mono (single-channel) or stereo (two-channel) sound. Most of the time, you'll be recording one channel of sound at a time, so Mono is usually the best choice here.



Because GarageBand only allows you to record one track at a time, you may wonder why it even *has* a Stereo button. Here's why: If you have an audio interface with two or more inputs, you can record two channels at once, although both are recorded on a single GarageBand track.

A track that's made with the Format button set to Stereo isn't *real* stereo. Even if you used two separate microphones or recorded two separate vocalists or instruments, they are recorded onto a single track. And if it's just one track, it's not stereo, is it?

If you choose Stereo, the Input pop-up menu changes. So, instead of seeing one track name, you see Channels 1/2 or Channels 3/4, to denote that tracks 1 and 2 (or 3 and 4) on your audio interface are enabled.

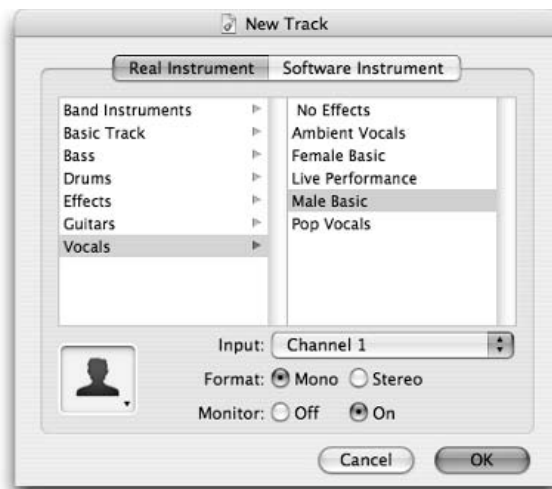
11. Click the **On** radio button for **Monitor** (so that you can hear yourself play or sing as well as hear backing tracks through your headphones).

Your New Track dialog box should look like Figure 7-1.

12. Click the **OK** button.

Your mic should now be live and your track ready for recording.

Figure 7-1:
Click the OK
button to
test your
microphone.



With headphones on, speak into the mic. If you hear yourself, you're golden. If you don't hear yourself (and see the track's level-meter LEDs light up), here are things to consider (in no particular order):

- ✓ Make sure that all your cables are firmly connected.
- ✓ Make sure that the correct devices are selected for input and output in GarageBand's Preferences pane. (Open GarageBand Preferences, click the Audio/MIDI tab, and choose the appropriate input and output devices from the Audio Input and Output menus.)
- ✓ Make sure that the proper track is selected (you can't record a track unless it's selected).
- ✓ Make sure that the track you're recording doesn't have its mute button illuminated.
- ✓ Make sure that no other track has its solo button illuminated.
- ✓ Make sure that the volume slider isn't all the way to the left.
- ✓ Make sure that the mic is turned on (not all mics have on/off switches, but some do).

- ✓ Make sure that the audio inputs in System Preferences and/or your audio interface are turned up.
- ✓ Make sure that the selected output device isn't muted (if that's the output you're using).
- ✓ Make sure that you can hear other sounds through the selected output device to see whether the problem is your headphones (and not your mic setup).

If none of this works, try a different mic or a different input.

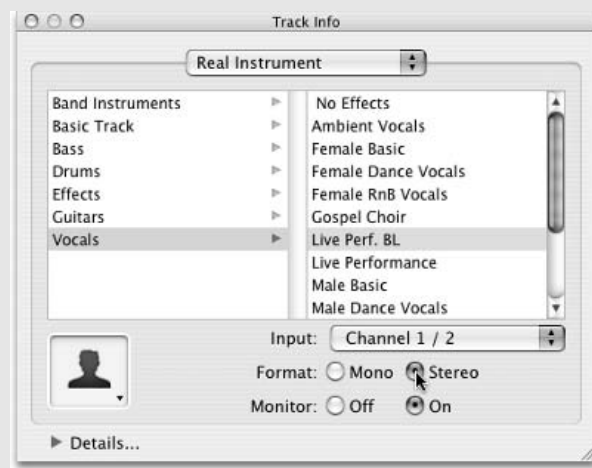
Stereo versus mono

While GarageBand can only record one track at a time, it can record that track in stereo if you have two microphones available (that is, plugged into your input source). While some instruments can sound better when recorded using two microphones, it's usually more effort than it's worth.

If you care to try it, it's no big deal as long as you have an audio interface with two or more inputs. If so, create a real instrument track and choose the Stereo Format radio button, as shown in the following figure.

Now connect a microphone or instrument to two inputs (channels 1 and 2) on your audio interface, set your levels as before, and record.

You need to know one more thing if you're going to record in stereo. Called the 3:1 (or 5:1) rule, it goes something like this: If you use multiple microphones, the distance between the mics should be 3 to 5 times the distance between the mic and the sound source (vocalist, instrument, or amplifier). This prevents your recording from sounding dull or blurry due to phase-cancellation issues. You can ignore the rule, however, if both mics are cardioid and are placed back to back (that is, aimed in opposite directions).



Tweaking the pan to hear vocals better

The pan settings control where a sound is coming from in the stereo field — that is, from the left or right. Although it's more effective to wait and fine-tune pan settings for each track when you mix and master, a simple tweak to the pan settings may help you hear vocals better in your headphones.

Here's how it works: Pan a track or more than one track hard left or right and pan the track that you're recording hard, but to the opposite side. This way, you hear the previously recorded instrument or voice tracks in one ear and the track that you're currently recording in the other ear. Some musicians and singers find this less confusing than hearing everything in both ears. Try it and see if it works for you. I find it particularly helpful for recording harmony vocals.

Positioning the microphone

Assuming that you can hear the input from the microphone in your cans (see the preceding section for details), it's time to adjust the mic's position for optimal recording. For most microphones in most situations, the optimal distance from the sound source is from 6 inches to 2 feet. Most vocals are recorded using a classic "close mic" technique, where the microphone is 6 inches or less from the vocalist's lips.

Many mics pick up sound in a cardioid pattern (see Chapter 2), which is the preferred pattern for vocals and most single-instrument recordings. The closer you move a cardioid pattern mic to the sound source, the more bass response you hear. This is known as the *proximity effect*. You can really hear this effect in your cans (headphones) as you move the sound source and microphone closer together or farther apart.

Because cardioid-pattern mics pick up sound directly in front of them better than from the back or sides, changing the orientation of the mic can dramatically change what you hear. So don't just move it closer and farther away — change the angle or direction that the mic is pointed in, too.

And by the way, that whole "6 inches to 2 feet" thing isn't etched in stone (or anything else for that matter). If your oboe sounds fantastic when the mic is exactly 3.75 feet away from the whatever-you-call-the-hole-the-sound-comes-out-of, fantastic! The point I'm making is that there are no rules, and you can only find the sweet spot for a mic by experimenting with its placement.

After you're happy with your mic's placement, you're ready to set the levels. See the next section for details about how to do this.

Things you should know about using (and not using) a microphone

When you're not using a microphone, you should store it somewhere cool, clean, and dry. Many microphones include a leather or faux leather pouch; it's a good place to store the mic when it's not in use. At least cover the mic with a piece of cloth or an upside-down plastic bag. (Don't seal the bag; just let it hang over the mic.) If you keep dust and airborne gunk away from your mic, it will perform better and last longer.

If you spit or spray when you sing, use a pop screen to minimize the amount of saliva that gets onto the mic. Saliva isn't a good thing where delicate electronic devices are concerned, so if you spray, spit, or drool onto your mic, dry it gently with a soft cloth as soon as possible.

Do not try to blow a mic dry with a hair dryer or compressed air in a can; either can render the mic inoperable. So don't do that, OK?

Setting levels

When the mic is positioned and sounds its best to you, fine-tune your recording level for the track. Because you're recording real audio (and not a software instrument), you can't change the recording level later. If you record the track "too hot" or "too cool" (with too much or too little level), the track will be distorted or too quiet.



If you "spike" into the red zone once or twice (or even more) during a performance, don't lose hope. You may be able to use the rubber band Track Volume controller to lower the volume during those hot passages. If you don't have too much distortion in the recording (from being too hot) and with other tracks blended in, your track may be fine that way.

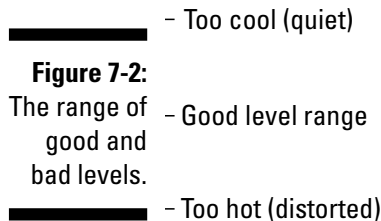


It's always better to record at the right level, though. If you overdrive a track by recording it too hot or record the track too cool (quietly), you risk losing a great performance. So play it safe and keep your levels under control when you record. And when you mix. And when you master.

To set the levels before you record a take, play or sing a bit of the song that you want to record and watch the levels on LED display, which you find in the Mixer column for that track. What do you look for to get a proper recording level? Check out Figure 7-2 to find your answers. The top image shows levels that are too cool. The two pictures in the middle represent a good range of recording levels. The bottom one is too hot.

You want the recording level as green as possible, without much (or any) yellow (too low) and even less red (too hot). However, an occasional spike near the red, as shown in the third picture down in Figure 7-2, won't hurt you.

But don't let it stay that hot for long. If you see *all* the red LEDs lit up, like they are in the bottom picture in Figure 7-2, your recording will almost certainly be distorted and may be unusable.



If your tracks are too cool or too hot, first try adding a bit of compression, which I discuss in more detail in the next section. Then play a bit of your song again to see whether that puts you in the green. If that doesn't work, try adjusting the level by sliding the level fader to the left. Keep tweaking compression and levels until you find the right amount of level that gives you a useable track. You can find more details about adjusting levels in Chapter 4.

Finally, memorize my late, great uncle Yogi's mantra for recording levels, and things will be fine:

*Lots of green, it's sweet and clean;
Too much red, your track is dead.*

Adding effects

One way of making a track sound different or better is to add effects to it.



In the past, the rule was to use as few effects as possible during recording. The object was to keep what was on tape as pristine as possible. If you recorded a track with, for example, echo and reverb, and later decided that you didn't want echo and reverb, or wanted less of it, you were stuck. The track on tape had the echo and reverb in its DNA. Sometimes it was necessary to add some compression or equalization to a track during recording, but most other effects were added later, giving you the option of using them or not.

You have no such limitation because GarageBand uses effects that are nondestructive — meaning that you hear the effects in real time but they're not applied to your tracks until you export the project. And that, my friends, is a really good thing.

The upshot is that you no longer have to worry about spoiling a take by adding an effect. If you don't like the effect, you can remove it. No harm, no foul.



If you're a veteran of analog recording, this probably seems like a miracle. In the old days, effects were usually outboard hardware devices that were filled with strange DSP chips capable of such real-time shenanigans. Today, our G4 and G5 processors are more than powerful enough to add effects such as these on the fly.

It's nice to know that you can add the effects at any time. So add 'em or not as you like — you won't hurt anything. So knock yourself out choosing different presets and adjusting the EQ, reverb, and echo — whatever rocks your boat.

That said, with most of the effects, you don't gain a great advantage adding them before recording. But compression is a special case. Even in the old days, sometimes it was best to add a bit of compression to an instrument or voice before committing it to tape. And the same holds true for GarageBand.



Anytime that you have a track that has hot spots — but not too many of them — you may be able to bring the loudest and softest parts closer together by adding a bit of compression. I almost always add *some* compression to my vocals, guitar, bass, and drum tracks. There's not much I don't compress at least a small amount. So before you lower the level of the entire track or turn on the Track Volume control, try adding a small amount of compression. You should see less yellow and red in the LED level displays, and you should be able to hear softer passages better than before. A bit of compression can free you from having to "ride the faders" (or "diddle the Track Volume rubber band controls," in GarageBand parlance) to compensate for loud and soft portions.

The small amount is key. While a little compression can make a track that's too hot in some parts and too cool in others sound better, too much compression can make it sound artificial and even robotic.

To add just the right amount of compression for a vocal or acoustic instrument track, follow these steps:

1. **Begin playing your song by clicking the Play button or pressing the spacebar.**
2. **Open the Track Info window by choosing Track⇨Track Info or by pressing ⌘-I.**
3. **Turn Compression on by making sure its check box is selected.**
4. **Slide the fader to the right while listening closely.**

You may want to click the Solo button for the track so you can hear it more clearly.

5. Slide the fader to the left and right until you like what you hear.
6. Check your levels again (see the section, “Setting levels,” earlier in this chapter).



You may have to slide the track’s level slider to the left or right by a small amount to achieve the best level for the track after you’ve added compression or changed your compression settings.

Proof of nondestructive effects

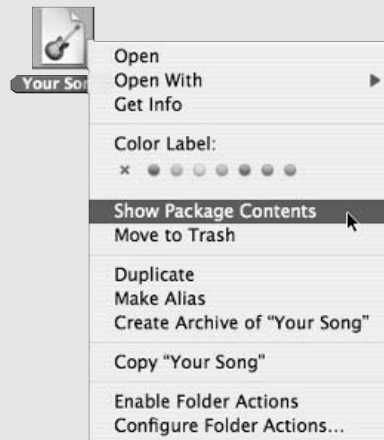
In the old days, you had to be careful adding compression to tracks because after you added it, the compression was recorded on the tape and couldn’t be removed. GarageBand and other modern recording software break that rule in a big way by making all of their effects “nondestructive.” Here’s how to see it for yourself:

1. Create a new project and record a track using a preset that adds a distinctive sound.

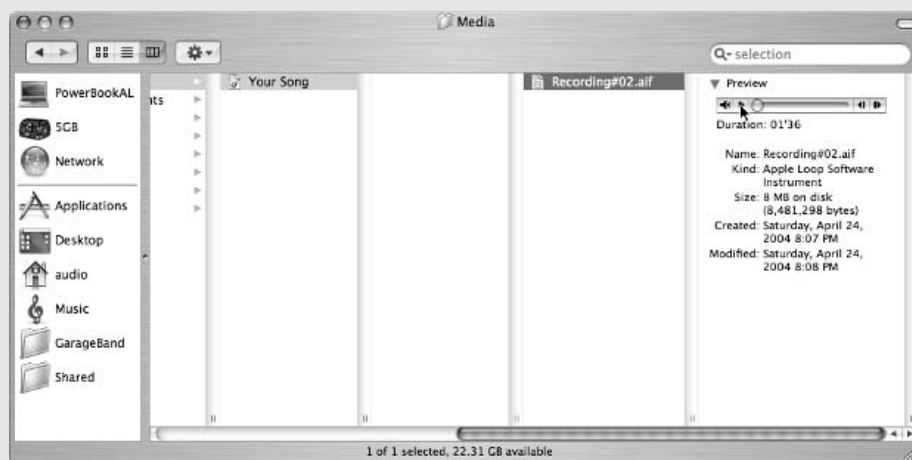
If you play guitar, Arena Rock is a fine choice; for vocals, try Pop Vocals.

2. Save the project and exit GarageBand.

3. Locate the file on your hard drive, Control-click it, and choose Show Package Contents from the contextual menu, as shown in the following figure.



4. Open the Media folder in the project package window, and you’ll see at least one file with a name something like Recording#02.aif, as shown in the following figure.



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This is the actual recording that you made — or more accurately, what GarageBand wrote to your hard drive when you recorded.

The easiest way to hear the recording is to choose View→As Columns (or press ⌘-3) and then click the `Recording#.aif` file so that it's selected. A preview column appears to its right; click the Play button to hear what was recorded, as shown in the previous figure.

It sounds just a wee bit different than it did in GarageBand, doesn't it? That's because the effects that you heard in your headphones while you recorded the track were added on the fly but not written to the hard drive. And that is the proof that GarageBand effects are nondestructive.

Checking for unwanted noise

Before you start recording your tracks, listen carefully once more for extraneous noise. Is the air conditioner or refrigerator running? (Better catch it before it runs away.) If you live in the South, listen for those ceiling fans; if you're a Northerner, listen for steam pipes or oil heaters clanging; no matter where you live, listen for jet planes flying overhead and big trucks driving by outside your window.



If you hear anything but your voice or instrument in the cans, your take could be spoiled.



If you're recording vocals, listen carefully and make sure that no sound from your headphones leaks into the mic when you sing. If it does, reduce the headphone output (the better choice) or back away from the mic a little (which may hurt your recording quality and is less likely to work).

See Chapter 2 for a checklist that can help you prevent background noise from showing up on your tracks.

Not for drummers only

Recording drums one track at a time using one microphone is a drag. So stereo recording has more significance for drummers and anyone else who would like to record with more than one microphone. While GarageBand lets you record in stereo, the procedure isn't for the faint of heart (or wallet).

Alas, I am not a drummer and don't even play one on TV, so I asked my friend and colleague Dave Hamilton, who happens to be a real drummer (as well as an avid GarageBand user), to help me out. He graciously contributed the info on the two ways of recording drums in GarageBand that you're about to read.

Just so you know, Dave is the drummer for the greatest garage band you never heard, The Macworld All-Star Band; he is also the CEO of BackBeat Media and President of *The Mac Observer*. He has played and toured with members of the Dave Matthews Band, played in the horn section for Phish, and played in David Letterman's CBS Late Night Orchestra. So he's the real deal.



Dave is also an underrated writer whose work has appeared in *MacAddict* and *The Mac Observer* as well as other Mac publications (but not often enough, if you ask me).

Now, without further ado, here's Dave's take (pun intended) on recording drums with GarageBand:

The one place where GarageBand falls short is in recording live drums. GarageBand's limitation of recording one track at a time (albeit on a two-channel stereo track) leaves many would-be home engineers scratching their respective heads. Recording drums requires a minimum of three microphones (although you can use more if you want), and GarageBand is just not built to accept that. Don't fret — I've got two solutions for you, depending on your needs.

One track at a time

One option is to let GarageBand dictate the way that you record — that being one track at a time. Because you'll be recording one instrument at a time, make sure that you have your song mapped out (either in your head or on paper) from start to finish. Choose your first instrument — the hi-hat, for example — and place your microphone accordingly. Then get your song set up in GarageBand, set your tempo (you have to record using GarageBand's Metronome as a guide), put on a pair of headphones, and fire away. When you've got that track the way you want it, move on to the next instrument. Get your bass drum miced up the way you want it, put the headphones back on, and go for it. Then do the snare, and so on.

As you can see, this is a very tedious process, but the result is tracks that are clean and pristine. These tracks can be individually equalized and effected within GarageBand, giving you complete control over the mix. You may lose some of the "feel" of having a live drummer playing all the parts at once, but that's the trade-off.

Don't want to make that trade-off, you say? Well, then, you have another choice.

Record all drums to one track at once

In the end, your drums get mixed down with everything else, resulting in a stereo, or two-track, signal. Well, nothing says that you can't at least do *some* of that mixing ahead of time.

This solution requires the purchase of a stereo outboard mixer with a minimum of six balanced inputs, preferably one with a built-in equalizer and effects processor. I really like both the Mackie DFX-12 and the Behringer Eurorack UB1222FX-Pro for this type of project. They both have on-board effects (stereo, no less!) and are quite capable mixers with clean sounds. Although the list price on the Mackie is nearly \$500, with a little bit of Googling, I found both the Mackie and the Behringer for less than \$250.

After you've procured your mixer and connected it to your Mac (either directly to your Mac's sound-in port or to a higher-quality outboard USB or FireWire audio interface), you're ready to start. Follow these steps to record with a mixer:

1. Position your microphones.

I found that I needed a minimum of three mics (one on the bass drum and then two overheads to get a stereo image of the sound) for decent results. You can, of course, move on past that and mic the snare, toms, and individual cymbals, if you're so inclined.

2. After you've got your microphones in place, connect them to the microphone inputs on the mixer and start tweaking.

Assisted by a pair of isolating headphones, you should be able to get the levels and equalization pretty close while sitting right at the drums. Use the mixer's on-board effects processor to add some life to the overheads or individual drums, and then tweak the equalizer to your liking.

3. Use your mixer's pan controls to split signals to the left and right, creating a balanced stereo image.

4. After you get a rough mix that suits you, create a New Basic Track in GarageBand, open the Track Info window, and choose Drums in the left column and No Effects in the right column.

Now you're ready to hit the Record button and bash away, playing the drum track naturally!

When you're done, give it a listen back in GarageBand. If you decide that one drum needs to be louder or softer, adjust that level on your mixer and — you guessed it — re-record the entire track. While this can be time consuming at first, when you get a mix that you like, things should go much more quickly for subsequent recordings.

I always record all the drums on one track. I find that I get a much better feel of the track if I play and record it "live." Having figured out roughly where the levels should be set, I can usually begin recording within five minutes of sitting down at the drum kit.

Whichever option you choose, you end up with a decent drum sound that you can tweak to your heart's content with GarageBand's effects.

Happy recording!

Thanks, Dave.



Dave sent me an MP3 file of some drumming that he recorded using the three-microphones-and-a-mixer setup that he described in this section. It sounded just like drums (which is just what it *should* sound like).

Recording with a MIDI drum

There is one other option for recording drums: Use a MIDI drum controller such as the Yamaha DD55 MIDI Digital Drum System shown in Figure 7-3.

Figure 7-3:
Yamaha's DD55 looks, feels, and sounds like real drums, and sends touch-sensitive MIDI information to your Mac.



Yamaha Corporation of America, Consumer Products Division

Remember the MIDI keyboards I've been talking about throughout the book? Think of the DD55 as serving the same purpose with a twist: Instead of sending MIDI information when you press a key, the DD55 sends MIDI information when you tap one of the seven touch-sensitive drum pads with a drumstick or your hands.

The DD55 has 174 realistic-sounding drum voices you can assign to any of the seven pads. Included are 100 drum kit presets, or you can create your own dream kit using any of the 174 sounds. You also get a pair of cheap but usable foot pedals, allowing you to “play” a kick drum, hi-hat, or any other voice with your feet. And, of course, it offers MIDI In/Out so it can send MIDI information to GarageBand, but it’s also self-amplified with built-in speakers, so you can also use it standalone, without hooking it up to a computer.

Any drummer will tell you how hard it is to “play” drums using a MIDI keyboard. Although I’m not a drummer, I’ve been using a DD55 for the past few weeks, and the tracks I create with it sound significantly more realistic than ones I create using a keyboard.

Priced at around \$200, the DD55 is an outstanding value if you need to record drums that sound reasonably realistic.



The DD55 uses standard MIDI cables, not USB, so you’ll need an inexpensive MIDI interface to connect it to your Mac. Some USB MIDI keyboards have ports for MIDI in/out. If so, you can connect the DD55 to the MIDI keyboard and avoid the expense of a MIDI interface.

Recording the Track

Okay then, you’ve gotten everything ready to record. All that’s left is to actually record, and that’s a snap. Here’s how to do it:

1. **Move the playhead to the point in your song where you want to begin recording, or press Home to move the playhead to the start of the song.**

GarageBand has two features to help you record — a Metronome and a Count In.

2. **If you want to use the Metronome, choose Control⇧Metronome or press ⌘-U.**

The Metronome is a toggle; it’s on when it has a check mark next to its name in the menu.

The second useful feature for recording is the Count In. When you have it turned on, you get an additional measure counted out before GarageBand starts recording.

3. **If you want to use the Count In, choose Control⇧Count In (there is no keyboard shortcut for this feature).**

The Count In is a toggle; it’s on when it has a check mark next to its name in the menu.

Use both features, or at least use the Metronome when you record. See Chapter 6 for more details about these features.

4. Click the Record button (the red dot) or press R, and the recording begins.

Remember to watch your levels while you record.

5. When you're done recording, click the Play/Pause button or press the spacebar to end the recording.

Wasn't that simple?

Improving the Sound of Recordings

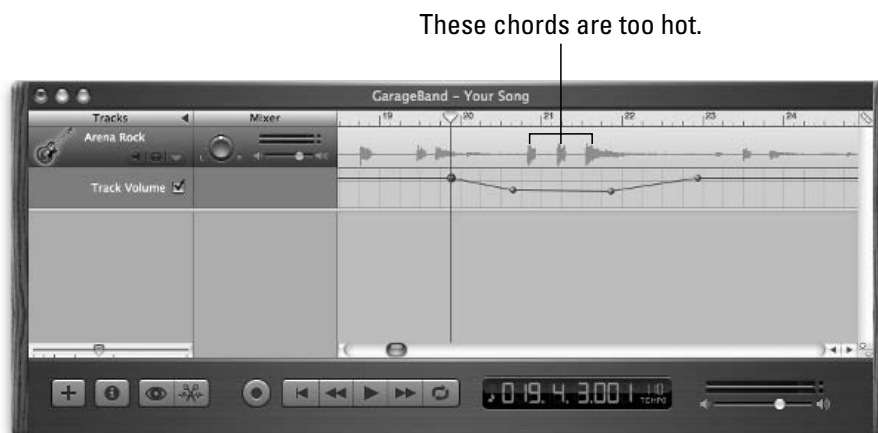
Now, if you've been paying attention and haven't killed the tracks that you've recorded (remember uncle Yogi's mantra: *Too much red, your track is dead*), you can tinker with the sound to your heart's content.

Remember that whole nondestructive thing from earlier in this chapter? If not, it means that you can add and subtract effects without affecting the quality of your original track — until you master, that is.

So listen to what you've recorded now, and pay particular attention to both the sound of the instrument or voice and the performance itself. Now add some effects or change some presets (it's just like adding effects and changing presets as discussed in Chapter 6), and then listen some more.

Are some parts too loud or too soft? Add a bit of compression, or use the Track Volume rubber band controller to reduce the level. As shown in Figure 7-4, I played these three chords way too loud for this part of the song; the Track Volume rubber band let me reduce the level smoothly before the first chord and increase it smoothly after the third one. See Chapter 9 for details on using the Track Volume control.

Figure 7-4:
Changing
the level
with the
Track
Volume
rubber band
controller.





If you hear other problems on a recording, don't worry yet — small problems can be fixed in several ways without redoing the entire track:

- ✓ **If you hit a wrong note — or even three or four — read the section in Chapter 9 about fixing flubs.** You can find several techniques for editing out mistakes or for replacing mistakes with better performances.
- ✓ **To fatten up the sound of almost any instrument or vocal track, try double-tracking, which is an age-old production technique.** GarageBand gives you two ways to do this; each has pros and cons:
 - **Way 1:** Duplicate the original guitar track (choose Track ⇨ Duplicate Track or use the shortcut, ⌘-D) and copy and paste the original guitar region onto the new track. This technique is fast and easy, but unless you're careful, it will sound mechanical because both tracks are *exactly* the same. One way to soften the effect is to change one of the tracks by adding effects try a bit of Chorus and the doubled track sound sounds ethereal. Or choose a preset with lots of distortion for one track and choose a cleaner-sounding preset for the other.
 - **Way 2:** Create a new track and record the part a second time, playing or singing along with the original track. You want to repeat your performance as precisely as you can, but because you're only human, the second recording will have small differences from the original track. So, while this technique can take you more time, the differences between the two takes can make this sound better than copying and pasting the same performance.
- ✓ **If you hear pitch problems in your recording, try using the Antares Auto-tune pitch-correcting plug-in; it's nothing short of a miracle.** (See Figure 7-5.) In a nutshell, this plug-in puts your voice or certain instruments back on pitch if they wander off. See Chapter 15 for more details.
- ✓ **If you own other audio programs with VST plug-ins, try FXpansion's VST to Audio Unit Adapter, which can translate any VST plug-ins that you own into Audio Units plug-ins that can be used with GarageBand.** So if you own another audio application that uses plug-ins in the VST format (which many do), for example, all of its plug-ins can be available to you in GarageBand for less than \$100 (the cost of VST to Audio Unit Adapter). You can find more details about the VST to Audio Unit Adapter in Chapter 15, too.

Figure 7-5:
With the
Antares
Auto-tune
plug-in even
I sound
“pitchy” and
sing on key.



