Chapter 10

Mixing Tracks into Songs

In This Chapter

- Finding out what mixing is
- Creating a level playing field
- Panning tracks left or right
- Adding effects

The tracks are in the can, and you've edited, tweaked, and cleaned each one until it's the best it can be. Now it's time to turn your pile of separate tracks into a song. I'm talking, of course, about mixing it.

What Is Mixing?

When you've done all you can do with the individual tracks, it is time to blend them all together in a way that pleases your ear by mixing multiple tracks together to create a stereo master track.

Technically, the mixing process works something like this:

1. **Set the level of each track so that they blend harmoniously.**
2. **Set the pan (left/right) of each track to place the instrument (or vocal) in its place in the imaginary sound field.**
3. **Add effects, such as echo, reverb, compression, and so on, to the tracks.**

Not every track needs effects. In fact, adding too many effects is a common mistake, particularly when the producer is new to multitrack recording. Forewarned is forearmed; don't overdo it. Don't forget your mantra: "Look for a reason to leave it alone."

I mix my songs in the order that I'm presenting the steps — levels, pan, and then effects. But that's not an ironclad rule; if you want to add effects before you set your pan positions, go for it. The point is that three fairly discrete components make up the mixing process; you need to pay attention to all three if you want the final song to sound its very best.

When you master your song, you pretty much repeat the mixing process. But rather than tweaking individual tracks, you set levels, pan, and so on for the entire song at once.

Take your time mixing your songs. Experiment and try different combinations of levels, pan, EQ, and effects. The mix is where the magic occurs; I often spend more time mixing than recording tracks.

Mixing isn't rocket science — it's fun and easy, and you don't need a degree in musicology or even audio engineering to mix. In fact, all you really need is your ears. There is no right or wrong mix; the perfect mix is the one that sounds right to your ears.

To me, mixing is the most creative part of the production or postproduction process — and the most fun. Mixing is where you add that special something that makes your song "music" and not just a collection of recorded tracks.

Now relax, get comfortable, and let's mix.

Creating a Level Playing Field

In general, you're shooting for a mix where no instrument or voice overpowers the others, and each instrument or vocal can be heard clearly. So, the first step in mixing is usually to create a rough mix, where you set the level of each track about where you want it, relative to the other tracks. Then, you can fine-tune the levels of each track. All the while, keep an eye on the level meters to make sure that you stay out of the red.

The following sections have all the details.

Roughing it with a rough mix

Before you do anything else — before you touch the pan control or add effects, you create a rough mix for each track so that no instrument or vocal track is dominant and all the tracks can be heard clearly. Create your rough mix by following these steps:

1. **Play your song by clicking the Play button or pressing the spacebar, and then listen closely to the levels.**

   Is any instrument or vocal far too loud or soft? Are you hearing every instrument and vocal track?

2. **Adjust the level of each track that seems too soft or too loud by moving its slider control to the left or right in the Mixer column.**

Keep an eye on the master level meter in the lower-right corner of the Timeline window; it represents the level of your stereo mix. If you make a track too hot, you'll probably overload the master level meter and see some red. It's better to keep an eye on it now than to have to readjust all your levels again later in the process to prevent clipping. So watch out for those red LEDs on the master level meter, and try to keep all your levels set so that you see little or no red on the masters.

3. **Listen to the song again to see how adjusting the level affected the rough mix. If the levels still aren't quite right, keep tweaking using the level sliders.**

I usually spend a few minutes adjusting level controls for any tracks that are too loud or soft. I then listen and adjust any tracks that are still too loud or soft. When I have a reasonably good balance and nothing is horribly loud or soft, I move on to the next step, knowing that I can always make additional adjustments later if necessary.

And that's all there is to a rough mix, as shown in Figure 10-1.

Figure 10-1: A rough mix, using only the sliding level controls.

You can use the Mute and Solo buttons in the Tracks column to enable or disable tracks when you're working on your rough mix. I usually mute the vocal tracks until I have a rough mix of the instrument tracks. Then I unmute the vocal tracks and mix them in. You don't have to use Mute or Solo when you mix; they are merely tools that you can use if you so desire.

When you're satisfied with your rough mix, it's time to begin mixing in earnest by fine-tuning your levels, which it what the next section is all about.

A fine tune

Now you'll give your song a more critical listening, this time searching for *parts* of tracks that are too loud or too soft. If you've got a wonderful vocal that sounds perfect during the verses but overloads the level meters during the louder choruses, you can fine-tune the track so that its level is perfect all the way through.

The Track Volume rubber band is the key. You use it to lower the level of the vocal during those overly loud choruses so that the whole track plays without seeing red in the meters.

You can also use this technique to emphasize a solo or disguise a flubbed part.

Figure 10-2 shows a mix that's been fine-tuned by using the Track Volume controls on two of the four tracks. The guitar and harmonica are emphasized during the introduction, after which I reduce their levels a little to blend with the rhythm section.

Figure 10-2: A fine-tuned mix, with the harmonica and guitar solos emphasized.

In the 15th measure, the harmonica solo begins, so I increased the harmonica track's level there to emphasize it. In the 21st measure, the harmonica solo ends and the guitar solo begins, so I increased the guitar track's level and reduced the level of the harmonica track.

I almost always mix drums and bass (the "rhythm section") first, and I rarely use the rubber bands for either. The rhythm section usually remains at a constant level throughout the whole song — except when it doesn't. There are exceptions to every rule, and while it's rare that I use Track Volume rubber bands on a bass part, I do occasionally use them on drum parts to emphasize or de-emphasize a portion of the track.

To use the rubber band for a track, follow these steps:

1. **For the track that you want to tweak, click the triangular button on the right side of the Tracks column.**
2. **Select the Track Volume check box to enable it.**
3. **Find the point in your track where you want to raise or lower the level.**

   To find the right spot, move the playhead and click the Play button or press the spacebar.
4. **Click on the rubber band to create your first control point.**

   It's best to start your adjustment a little before the part where you want the level adjustment to occur.
5. **Click again near the beginning of the part, a second time near the end of the part, and a third time several beats after the end of the part to create three more control points.**
6. **Drag the two control points in the middle upward or downward to increase or decrease the sound for that part.**
7. **Listen to what you've done. If it doesn't sound smooth and natural, try dragging the control points around a little — up or down to change the level, or left or right to change the duration.**

Level meters: Red = dead

Each track has a pair of level meters for its left and right channels. Be sure and pay attention to them as you mix your song. If the level of a track is too hot (that is, too high), you will introduce distortion and other undesirable crud to your song — something you should avoid at all costs.

If any track's level is too hot, you'll see red on the right side of its level meters. In a nutshell, no track should be red for more than a quick second, and it's better if you see no red at all.

To make things easier, each level meter has a *peak indicator,* as shown in Figure 10-3. When a track's level hits the red zone, the peak indicator lights up in red and remains lit until you click it to turn it off.

Peak indicators are an easy way to figure out which tracks are too hot without having to watch 20 or 30 level meters at once while the song is playing.

If you see any track's peak indicator is lit, determine whether the whole track is too hot or if it's only too hot in one or two places. If the whole track is too hot, use the sliding level control to reduce the level; if only one or two places in the track are too hot, use the Track Volume rubber bands.

Figure 10-3: When a track hits the red zone, the peak indicator lights up and remains lit until you click it to turn it off.

The most important level meters of all, though, are the master level meters in the lower-right corner. These indicate the level for the left and right channel of the stereo mix. If they go into the red, you risk ruining the whole song. So while it's important to keep individual tracks out of the red, it's even more important that the master levels aren't too hot.

The master levels reflect the combined levels of all the tracks. If your master levels are hot, reduce the level of one or more tracks. Ideally, you want to see as much green as possible and little or no red.

Furthermore, if the peak indicators for your master level meters light up, your song is too hot. Adjust individual track levels until most or all of the red has been eliminated before you master and export your song, or you'll hate the way it sounds.

Panning Tracks Left or Right

When you're satisfied with your levels, it's time to look at panning your tracks. *Pan* determines how much of each track is sent to the left and right speaker. The object of panning is to create an imaginary stereo sound field and to place instruments on the virtual stage. For example, the harmonica player is on the far right side of the stage, the singer and drummer are smack dab in the middle, the bass player is just to the right of the drummer, and the guitarist is on the far left side.

Figure 10-4 shows tracks that are panned to create the illusion that I just described.

Figure 10-4: Drums and vocals are panned dead center, harmonica and guitar are panned hard right and left, and bass is panned soft right.

You can even create the illusion that one instrument is closer to the front of the stage than others with effects like delay, reverb, and echo. These terms are covered in the section, "The Effects of Adding Effects," later in this chapter.

The ear is less sensitive to the direction of low frequencies such as a bass or kick drum, so bass and drums are often panned dead center. All other instruments and voices, though, should be considered for panning.

One of your other objectives in mixing is to separate different but similar-sounding instruments so that you can hear that they're two different instruments. To that end, you should avoid panning instruments in the same frequency range to the same side. Here's an example: If your song has guitar and harmonica tracks (both occupy the midrange), you should pan one to the left and the other to the right. If you panned them both the same way, they blend together, and neither will sound as clear and distinct as when they're panned to opposite sides.

Pan positions range from "no pan," or dead center, to all the way to the left or right, known as panning the track "hard left" or "hard right." The other positions are described as if the knob were a clock face. So a track that's panned halfway to the right, such as the harmonica track in Figure 10-4, is panned right to 3 o'clock.

As I said earlier, mixing is not an exact science, but if you're trying to create a song that sounds like what you hear on the radio, here are some suggestions for panning particular instruments and vocal parts:

- **Drums:** If the drums are a loop and contained on a single track, I pan them dead center. But if I've got separate drum tracks for different drum parts, I may pan the kick drum and snare dead center and the tom-toms and cymbals a little off-center, say to 11 o'clock and 1 o'clock.

- **Bass:** Remembering what I said earlier about low frequencies being less directional, I usually pan the bass dead center or possibly slightly off-center (no farther than 11 o'clock or 1 o'clock).
- **Guitar:** There's no hard and fast rule here; I sometimes pan the lead guitar hard left or right and the rhythm guitar hard to the opposite side. Other times, I pan the lead guitar a little to one side and the rhythm guitar a little to the opposite side — say, 2 o'clock and 10 o'clock.
- **Keyboards/organs/pianos/synths:** Again, there's no set rule about where keyboard instruments sound best in a mix, so they may go left or right or even center if the drums and bass aren't completely filling the center of the mix. If you have guitar parts and keyboard parts, it's usually best to pan guitars one way and keyboards the other. In this case, the lead guitar may be panned left to 2 o'clock, the rhythm guitar panned hard left, and the keyboard panned somewhere on the opposite side (right).
- **Lead vocal:** This vocal is usually panned dead center or slightly off-center. If I double a vocal track, I pan one track slightly left, to about 10:30, and the doubled vocal to the right, at about 1:30.
- **Background vocals:** I almost always double background vocals and usually pan one track hard left and the second track hard right. If I want an even thicker harmony vocal sound, I sometimes add a third instance of the track panned dead center, but with a lower level than the left and right ones. This gives a kind of Beach Boy effect to the background vocals.

  

  Be careful: The middle of the sound field gets mighty crowded in most songs, so adding more tracks panned dead center can muddy the mix rather than make it clearer.
- **Hand-held percussion (tambourine, shakers, washboards, and so on):** Pan it anywhere you think it sounds good. If you've got cymbals panned left or right, you may want to pan the percussion instrument the opposite way.

The bottom line is that there are no absolute rules for setting a track's pan. Let these suggestions be your guide, but remember that for every suggestion, there is an equal and opposite suggestion. If you pan each track where it sounds best to you, regardless of what anyone (including me) suggests, your songs will come out sounding just fine.

The Effects of Adding Effects

This is a tough one for me because using effects in the studio could be the subject of a book that's even bigger than this one and still not cover everything there is to know. You just have so many different effects to choose from and so many different uses for effects in your songs.

So the best I can hope for at this point is to offer you a quick glimpse of a few of the effects that you'll likely be using the most.

There's nothing mysterious or technical about how to use effects on your tracks — you basically turn the effect on, twiddle with the settings, listen to the track, and decide whether the effect helps or hurts the song.

I'll say it one more time: "Just trust your ears."

Turn on an effect and listen to the difference. Tweak its settings, and listen to what happens. After a while, you'll know what each effect does and what it sounds like when applied to a track. It won't be long before you find yourself listening to a song on the radio and thinking, "I love the chorus effect on that guitar."

To find the effects for a track, choose Track➪Show Track Info or press ⌘-Y, and then click the Details triangle. With the Track Info window open, I'll get right to it and look at a few of the effects that come into play (pun intended) most often.

Equalization? Or not?

Equalization (also known as EQ) lets you control specific frequencies within a track (or song) and increase or decrease the volume for those frequencies to impart different sound characteristics to a track. Want to brighten up an acoustic guitar?

Words aren't the best way to understand the effect of EQ, so I'll try a little experiment:

1. **Open GarageBand, and create a new song project.**

   Your project will already have a software instrument Grand Piano track.

2. **Record a few measures of piano using your MIDI keyboard or the built-in on-screen one (choose Window➪Keyboard or press ⌘-K).**

3. **Turn on the Cycle Region (click the circular arrow or press C), and stretch it to cover the region that you just recorded so that what you recorded plays continuously, as if it were a loop.**

4. **Click the track to select it, open its Track Info window, click the Details triangle, and then select the Equalizer check box to enable it, as shown in Figure 10-5.**

5. **Now press the spacebar or click the Play button to start the music.**

   Listen to the music once or twice to get a feel for what it sounds like before you add any EQ.

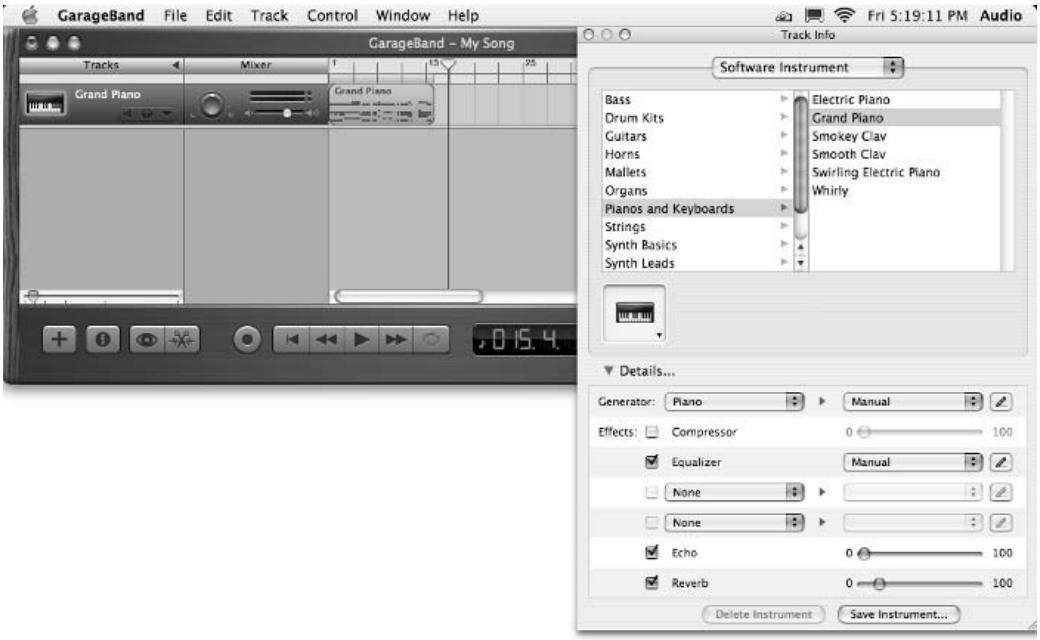

Figure 10-5: Select the Equalizer check box to add equalization.

6. **Click the Edit button (the little pencil on the right side of the Equalizer Presets pop-up menu) to open the Equalizer window, as shown in Figure 10-6.**

7. **Open the Presets menu in the Equalizer window (it says "Manual" in Figure 10-6), and choose the Flat preset.**

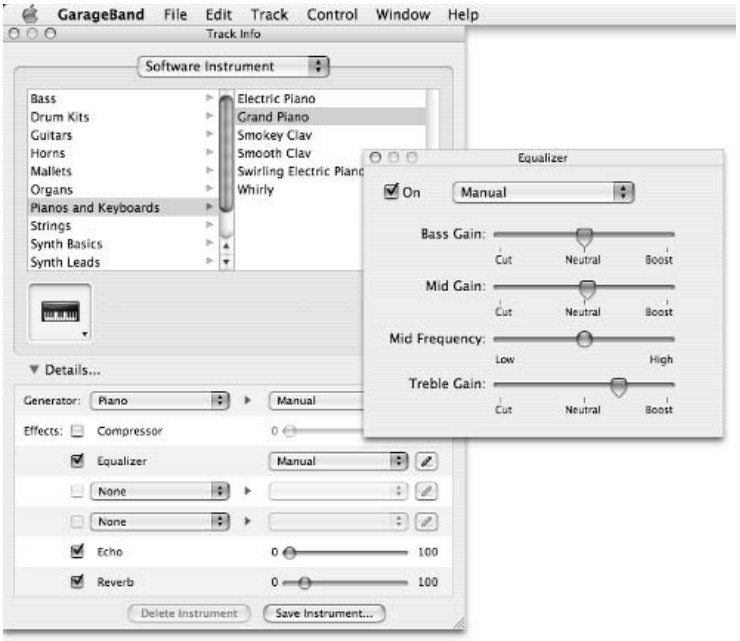

Figure 10-6: Click the Edit button, and the Equalizer window appears.

The Flat preset is the equivalent of having no equalization. I am having you select it now to prepare your ears to hear the difference between the sound of having no EQ applied and the sound of having other presets applied.

The piano part should still be playing, but now you're hearing it with no equalization.

8. **Choose a preset from the Presets menu, watch the slider controls, and listen to the effect of each preset on the piano's sound.**

   Figure 10-7 shows the Flat preset along with five others.

   So that's my best way to help you hear what EQ does to your song.

My advice is to use the presets first and only diddle with the sliders if none of the factory-supplied presets work. And, if you like what you hear after you drag the sliders, choose Make Preset in the Presets menu to save your masterpiece.

If you change the sliders and then choose Make Preset, don't forget to rename the preset. As shown in Figure 10-8, to do that, choose Make Preset (left). Then rename the preset in the Make Preset dialog box, and click the Save button (center). The preset then appears in the menu so that you can reuse it in the future. If you don't save the preset under a different name, you'll override the settings that came with GarageBand, which are the work of professional producers.

Figure 10-7: Six equalizer presets. Each alters the sound of the piano by increasing or decreasing the track's highs (treble), midranges, and lows (bass).

Pssst . . . Would you like to buy some more effects?

There is one more thing, as the king has been known to say, and that thing is this: If you want more effects than those that came with GarageBand, all you need is cash.

Start with the GarageBand Jam Pack, which provides more than 2,000 additional Apple Loops, over 100 new software instruments, more than 100 additional effects and presets, plus 15 new guitar amp settings. It's a bargain at $99.

If you're still in the market for more effects, you'll be pleased to know that GarageBand supports Audio Unit plug-in effects. Better still, if you own other audio programs that use older VST plug-ins, pop for another $99 and get yourself the fxpansion VST to Audio Unit Adapter (www.fxpansion.com). This slick little tool lets you run your OS X VST plug-ins in Audio Unit–compatible programs, including GarageBand! (VST and Audio Units are common file formats for audio plug-ins.)

Wow! My favorite plug-in of all time, AmpliTube (www.amplitube.com), shown in the following figure, now runs in GarageBand, so I now have over 1,000 different guitar and amplifier configurations that are based on some of the best modern and vintage amps and effects of all time.

AmpliTube isn't cheap at $399 a copy, but if you play guitar, these are amazing high-quality amp simulations. They're so good that Queen's guitarist (Brian May) raves about it, as does producer Steve Levine (The Clash, Beach Boys, and Culture Club) and lots of other real guitarists and producers (as opposed to poseurs like yours truly). Download the free demo, and you'll be hooked.

Another great value is Pluggo from Cycling74 (www.cycling74.com), a collection of over 100 Audio Unit plug-ins that costs less than many individual (professional-quality) plug-ins. Pluggo includes a variety of synthesizers, delays, choruses, flanging effects, filters, pitch effects, distortions, granulations, spectrals, and other effects, as shown in the following figure.

But don't take my word for it. *Electronic Musician* magazine, which many consider the bible for recording and producing audio, had this to say of Pluggo: "We've said it before and we'll say it again: If you are serious about doing hard disk recording on the Macintosh, you must buy this software."

I have good news: All of GarageBand's effects share the interface that you saw in the Equalizer window. This means that you now know how to use every effect in GarageBand. (And that means that I don't have to demonstrate them again, because you already know how they work.)

The following sections give brief descriptions of several more frequently used effects.

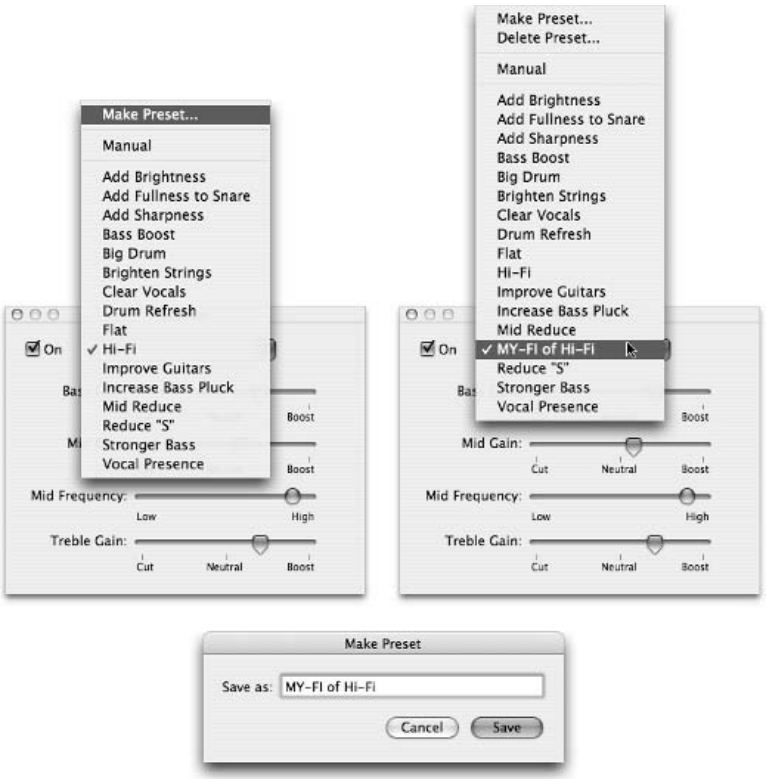

Figure 10-8: To save the settings you love, save the preset under a different name.

Echo and reverb

Echo (also known as delay) copies the original sound and plays it back later in time, with enough of a time lapse to be heard distinctly from the original.

Reverb (short for *reverberation*) is an effect that re-creates the sound of an acoustic space by playing back many copies of the original signal, at slightly varied times and volume levels.

It's hard to explain when and how to use these effects, so just turn them on, crank them up, and listen to the results. Some tracks sound much better with a little echo and/or reverb; other tracks sound better with none. Once again, trust your ears.

If you don't use echo or reverb on a track or tracks, you can still apply echo or reverb to the whole song. But that's a part of the mastering process, and I cover that in Chapter 11.

Compressor

The compressor effect decreases the difference between the loudest and the softest parts of a song or track. Compression adds punch and focus to a song and can make it sound better when played on a cheap audio system or on the radio. Many hit songs have a bit of compression applied to compensate for the limited frequency response of most radio speakers.

If you don't use the compressor on a track or tracks, you can still apply compression to your whole song. Again, that's part of the mastering process that I cover in Chapter 11.

Chorus

The chorus effect plays copies of the original sound later than the original, with each copy slightly out of tune, so one voice or instrument sounds like several voices or instruments playing in unison. (Actually, the instruments or voices play *close to* in unison, which is not quite *in* unison.)

Try this effect on vocals or instruments, but only use it a little. It's a cool and very professional-sounding effect, as long as you don't overdo it.

To use the chorus effect, you have to choose it in either of the menus that appear between the Equalizer and Echo controls in the Track Info window.

Doubling Tracks

Doubling tracks is one of my favorite pro mixing tips. When a track sounds wimpy, try *doubling* it to thicken the sound a bit. This means you have two copies of the same track, which you can create by copying and pasting or by re-recording the same part on a new track.

The copy and paste method

This technique is fast and easy. Those are its pros. The con is that unless you're careful, it will sound mechanical because both tracks are *exactly* the same.

Here's how the copy and paste method is done:

1. **Copy the contents of the track that you want to beef up by clicking the region and choosing Edit➪Copy or pressing ⌘-C.**
2. **Create a new track by choosing Track➪New Track, by pressing ⌘-W, or by clicking the New Track button.**
3. **Paste the contents of the original track into the new track by choosing Edit➪Paste or pressing ⌘-V.**

   Applying a different instrument to the doubled track worked wonders — it now sounds like a wall of guitars instead of one wimpy one.

   But I wasn't done yet.
4. **Make the track even better by first turning off GarageBand's Grid (choose Control➪Snap to Grid or press ⌘-G). This is a toggle, so I double-checked the menu for a check mark next to Snap to Grid. I didn't find one.**
5. **With the grid off, slide the Zoom controller to maximum zoom and move the duplicated guitar part to the right ever so slightly, as shown in Figure 10-9.**

   Now my one wimpy guitar sounds like a horde of blazing-hot guitarists. Perfect!

The re-recording method

Alternatively, you can double the track by creating a new track and recording the part a second time, playing or singing along with the original track. You want to repeat your original performance as precisely as you can, but because you're only human, the second recording will have small differences from the original track.

Although 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're a consistent-enough player or singer, the minor differences between the two performances may sound spectacular when played together.

To achieve a different kind of depth, offset one of the tracks just a bit by turning off the grid, zooming all the way in on the Timeline, and sliding one of the tracks slightly to the left or right (refer to Figure 10-9).

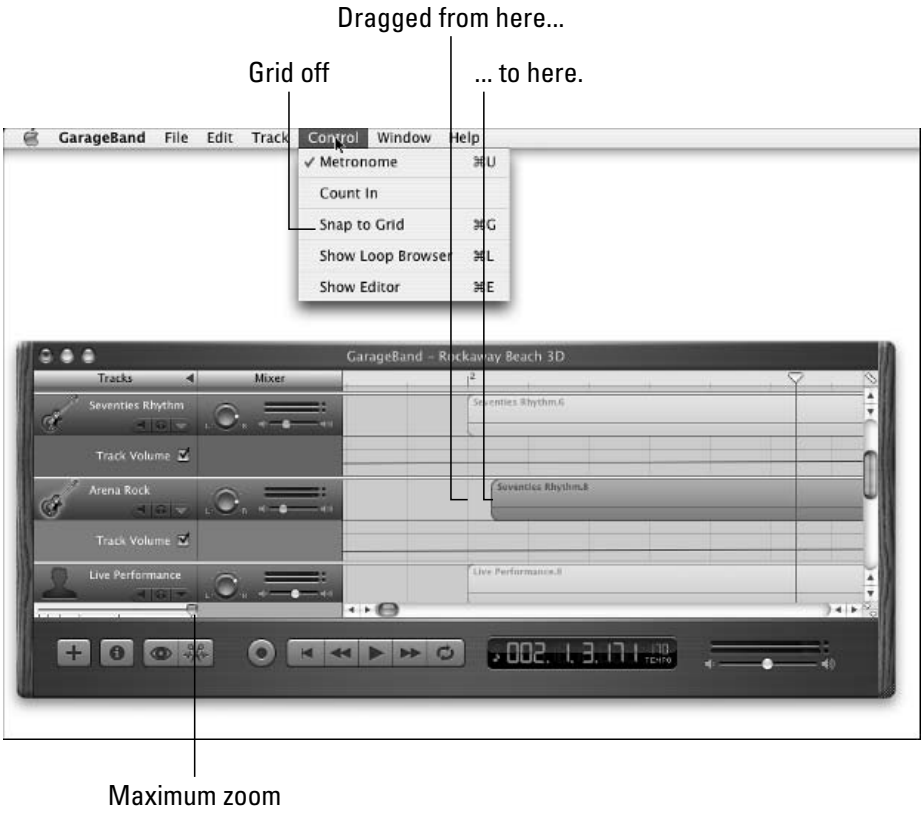

Figure 10-9: Double and tweak a single wimpy guitar to obtain a "wall of guitars" sound.

You get a richer, fuller guitar sound if you pan one of the doubled tracks left and pan the other track right by an equal amount. Try different combinations of panning and offsetting the doubled tracks until you find the one that's perfect for your song.

Ping-Ponging to Create a Submix (And Save Your Processor)

In the old days, only 4, 8, or 16 tracks were available for recording, so you couldn't afford 5, 6, 7, or more tracks of drums.

But mixing engineers wanted full control over each individual drum and cymbal and how they sounded in the song. Alas, this usually meant five, six, or even seven mics — and five, six, or seven tracks.

The technique that was used back then was called *ping-ponging* (or *bouncing*), meaning that the mixing engineer would submix the seven drum tracks to give two (left and right) new drum tracks, which freed five tracks for use elsewhere.

You can record unlimited tracks now in GarageBand, but at some point, your poor processor will poop out, and you won't be able to play or record any more tracks for your project. However, you can use the ping-pong/bounce technique to free some processing power.

After you ping-pong, you'll probably have enough horsepower to continue recording additional tracks.

Neat, eh?

Here's how I discovered it: I was using the PowerBook (G4 800) to make a song. I was recording drums on software instrument tracks and percussion instruments on real instrument tracks. Alas, when I got to about seven tracks, the accursed warning dialog box, shown in Figure 10-10, stopped me in my tracks.

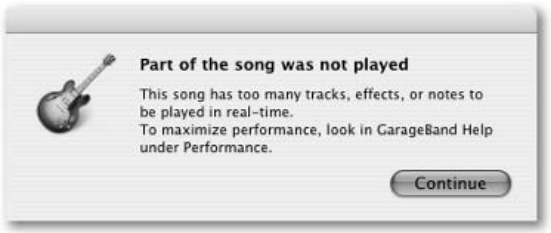

Figure 10-10: This is something that you hate to see in GarageBand.

That wasn't good. I still needed to add guitars, keyboards, vocals, a sax solo, and some handclaps, but my processor was pooping out with just the seven drum tracks. How would I ever complete this song on the PowerBook?

The answer was to take that page from the old analog recording days and bounce the seven tracks down to one (or two). What that means is that I mixed the seven tracks — all drums and percussion instruments — just the way I wanted them to sound in the final song, and then I exported them to iTunes. I saved my GarageBand project under a different name, deleted the seven drum tracks from the original project file, and replaced them with the submix that I just exported to iTunes.

That sounded a bit thin to me, so I added a second track with a copy of the same submix, panned one track slightly to the left and the other track slightly to the right, and that did the trick — I had a great-sounding drum and percussion track using very little of my processing power.

Did you get all that? I thought not. Let me go through it again, but this time with illustrations:

1. **It all began when I started a song ("PingPong4KingKongg," in this example). By the time the first seven tracks were in the can, I noticed that the playhead indicator had become very red.**

   Red means that your processor is being pushed nearly to its limit, so I wasn't surprised to see the dreaded dialog box more often.

   So I decided to try that old analog trick — ping-ponging (or bouncing) tracks — to reduce the load on my CPU.

2. **I mixed those seven tracks just the way I wanted them to sound in the final mix.**

3. **I then exported the mix to iTunes, as shown in Figure 10-11.**

Figure 10-11: I'm exporting the drum mix to iTunes.

4. **I saved a copy of the GarageBand project with a descriptive name (PingPongDrumTrax), in case I ever needed to remix the drums (choose File➪Save As or press ⌘-Shift-S).**

5. **I imported the song that I just exported by dragging it from iTunes into GarageBand, as shown in Figure 10-12.**

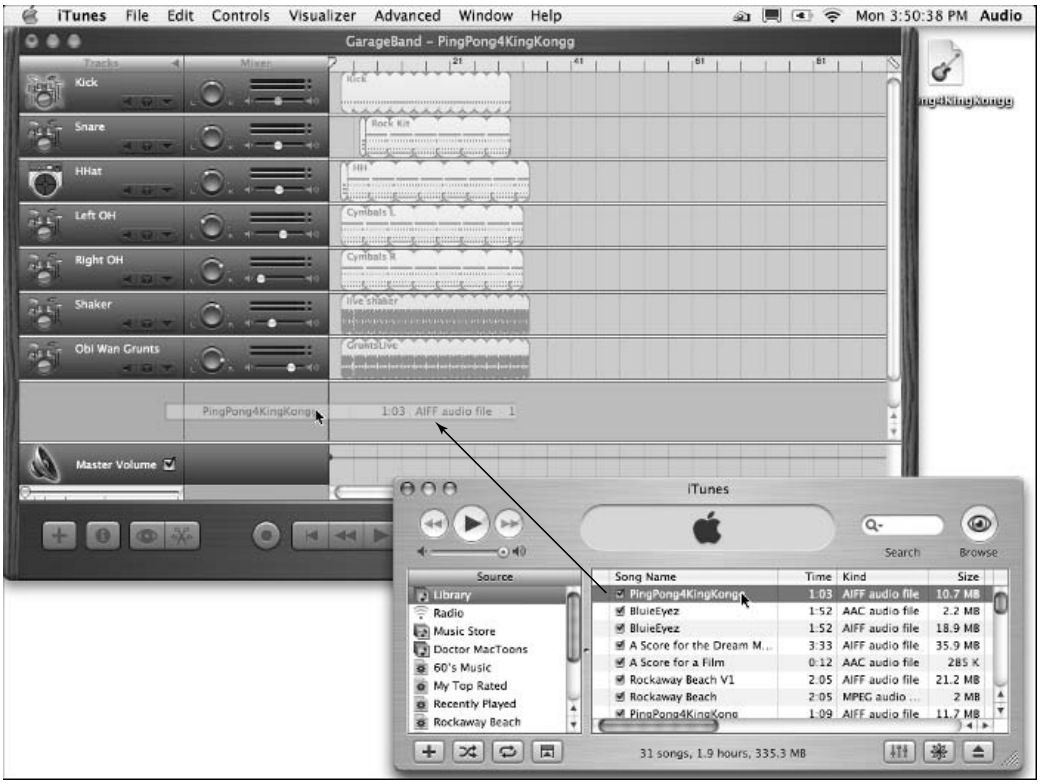

Figure 10-12: Bringing the drum mix back into GarageBand.

6. **Meanwhile, back at the ranch (that is, the PingPong4KingKongg project), I deleted all seven of the old drum tracks.**

   Figure 10-13 shows how things look at this point.

Figure 10-13: What used to be seven tracks is now just one track.

7. **After I gave it a listen, I decided that the drum track needed to be thicker, so I created a second track.**

   I held down Option as I dragged the PingPong4KingKongg#2.4 file down on the Timeline.

   The Option key tells GarageBand that you want to copy what you're dragging.

   So GarageBand copied the region, placing PingPong4KingKongg#2.6 on the second track.

8. **I panned the first track slightly right and the second track slightly left, as shown in Figure 10-14, and gave it a listen.**

Figure 10-14: And now that track is doubled for fatness.

9. **I added a little echo and reverb (a very little) to both tracks and then tweaked their EQ just a bit.**

   The choice of adding reverb and echo was completely instinctive, but then again, almost everything sounds better with a little echo and reverb added — at least to my ears.

   And I have to tell you, these two tracks sounded as good as (or better than) the seven tracks that I started with before the ping-pong match. Best of all, the playhead indicator was pure white, which indicated that the two real instrument drum tracks used a lot less processing power than the original seven (mostly processor-hogging software instrument) tracks.

   YAY! Mission accomplished.

So there you have it. If you plan your recordings carefully, it's easy enough to create submixes like my little drum example that can reduce the load on your Mac and let you continue working without reducing the number of anything — notes, tracks, or effects — that you can use.

And that's a very good thing!

And, if I later decide that the drum part isn't quite right, I can open that copy that I saved in Step 4, change the drum parts, and then do the whole thing again.