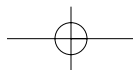


1

In this chapter you'll learn some important basics on your journey toward recording. You should now be sitting in front of your computer with Pro Tools installed and ready to go.

You'll set up your first Pro Tools session and learn where your files are located and exactly where you're saving your sessions. It's important to have an understanding about how Pro Tools manages your files. You need to know where your files are located and what hard drive you are recording to—otherwise, you could have playback problems later.

Working in your new Pro Tools session, you'll create your first track and learn how to insert a plug-in. The first plug-in that you'll create is a click, or metronome. Using this metronome, you'll learn how to use Pro Tools in Bars and Beats mode—a timing reference that allows you to record your music to a grid. This grid further allows you to edit entire song arrangements and easily copy and paste tracks anywhere in your music. As you work in Bars and Beats, you'll begin to appreciate the importance of the grid in creating professional music.



The First Step

This may not be the most exciting chapter in the book, but it's important that we cover the basics so that you have a strong foundation to build your music on. When learning to drive a car, you wouldn't just get behind the wheel and head down the West Side Highway in New York City without any instruction. So here at the beginning, try to have patience and faith in our purpose. Learning all these exercises will pay off in the end.

EXERCISE 1:

Start a New Session

Before we can create a new song—or what Pro Tools calls a *session*—we need to open Pro Tools. Where is it? Pro Tools is installed on your system's hard drive, meaning the hard drive that came installed in your computer. However, that's not where you'll want to save your newly created project files.

Let's walk through the process of finding and opening Pro Tools, starting a new file, naming it, and saving it to your external audio drive.

1]

Find Pro Tools. Mac users: Open your internal hard drive, and open your Applications folder. Inside there is a folder called Digidesign. Inside that folder is another one called Pro Tools, which contains the Pro Tools application. If you haven't already, drag the Pro Tools application to your Dock.

Windows users: If you're curious, open My Computer or launch Windows Explorer. Open your local drive (usually C:) and then the folder called Program Files. Inside that is the Digidesign folder, which contains the Pro Tools folder, which contains the ProTools.exe application. When you install Pro Tools in Windows, a desktop shortcut is automatically made for you, so you should seldom need to access anything in Program Files yourself.

Name	Date Modified	Size	Kind
Applications	Today, 8:53 AM	--	Folder
Address Book	Oct 27, 2004, 7:55 PM	--	Application
AppleScript	Sep 27, 2003, 4:23 AM	--	Folder
Backup	Jun 23, 2004, 9:04 AM	--	Application
Calculator	Oct 27, 2004, 7:43 PM	--	Application
Chess	Sep 27, 2003, 4:30 AM	--	Application
Digidesign	Today, 12:20 PM	--	Folder
Pro Tools	Today, 2:37 PM	--	Application
Controllers	Today, 12:11 PM	--	Folder
Grooves	Today, 2:37 PM	--	Folder
IO Settings	Dec 28, 2004, 2:42 PM	--	Folder
MS_OLE.bundle	Today, 12:11 PM	--	Folder
Plug-Ins alias	Today, 12:11 PM	1	Folder
Pro Tools M-Powered 7.0	Today, 12:10 PM	--	Folder
Pro Tools Utilities	Today, 12:11 PM	1.1B	Pro T...cument

Warning

For both Mac and Windows users, never take the Pro Tools application out of the Pro Tools folder. The folder contains files that the Pro Tools application needs in order to operate.

"I never know where anything is on my hard drive!"

The most common confusion I encounter with new computer users is that they never fully grasp where things are located. They don't understand where they are saving their files, and so they often don't know how to find things again.

If I asked you, "Where are your socks?" you might say, "in my dresser." If you had to tell me where to go to find your socks, you might say, "Go to my house, open the front door, open the bedroom door, open the closet door, open the dresser drawer, and find my socks."

File structure is a lot like that. The hard drive is your house. To find Pro Tools, for example, you open the house's front door—the hard drive. You open the bedroom door—the Applications (Mac) or Program Files (Windows) folder. You open the closet door—the Digidesign folder. Then you open the dresser drawer—the Pro Tools folder—and inside is exactly what you're looking for.

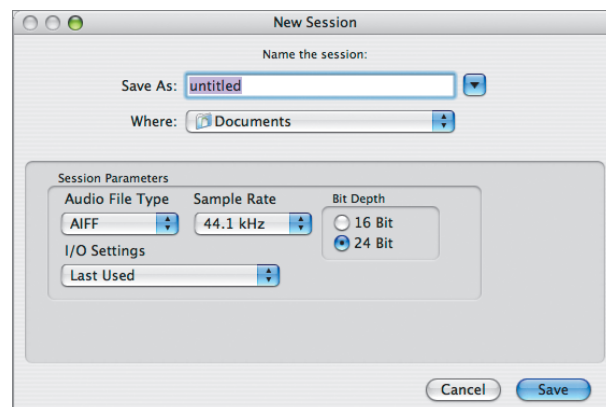
In this book, the / character indicates the *path* you'll take to find something. For instance, I'd explain the path to the Macintosh Pro Tools folder this way: Hard Drive/Applications/Digidesign/Pro Tools.

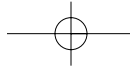
2]

Launch Pro Tools. In Windows, double-click your Pro Tools desktop shortcut. On a Mac, click Pro Tools in your Dock. On the Mac, the menus at the top of your screen will become the Pro Tools menus.

3]

Start a new session. Under the File menu, choose New Session. You'll get a window, or *dialog box*, full of choices. This window is asking you, "How do you want to work? Do you want your song to be a 16-bit or 24-bit file? Do you want to work with WAV files or AIFFs?" The good news is that there are really no wrong choices. Choose 24-bit, 44.1, AIFF (a very common file type)—but *don't* click Save yet.





Sample Rate and Bit Depth, in Plain English

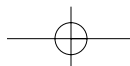
Digital photos are made up of tiny squares called *pixels*. A pixel is one dot on the computer screen. The more pixels per square inch, the clearer the picture; also, the more pixels, the larger the file. In photography, these pixels are measured in dpi, or dots per inch. So, a 72 dpi photo is a smaller file but has less detail than a 300 dpi file. Make sense?

If that makes sense to you, then *sample rate* will be simple. Instead of tiny pixels representing a piece of a picture, think of tiny samples or pieces of sound making up one second of audio. The more samples per second, the clearer the sound; but again, more samples make a larger file.

The 44.1 kHz setting simply means that your audio is being sampled or recorded 44,100 times per second. About 75 percent of my work is done at 44.1, but 48 kHz is very common. Higher sample rates such as 96 and 192 kHz are being used more and more these days. There is no wrong choice. For important projects, world-class engineers suggest you always work in the highest sample rate available; but they have fast computers and huge hard drives. The higher the sample rate, the harder your computer will have to work, and the more storage space you'll need for the tracks you record.

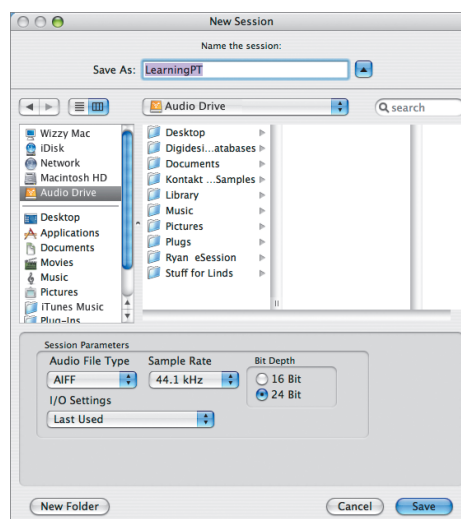
Bit depth is a little more complicated, but not much. Digital photos have shades of color, and the shades are represented by bits. If you have only one bit to represent whether a pixel is red or not, another bit for green, and another bit for blue, your photo will have three-bit color resolution, with no subtle shades at all. The more bits we add, the more shadings we can see in the picture. In audio as well, the higher the bit depth, the more accurate the audio sound being represented digitally and, yet again, the larger the file.

A word about large files: Hard drives are so affordable these days that worrying about using too much disk space is like worrying about where to place a broom in a four-car garage. Most likely you will have more space than you need, so go for quality and don't be miserly with disk space.



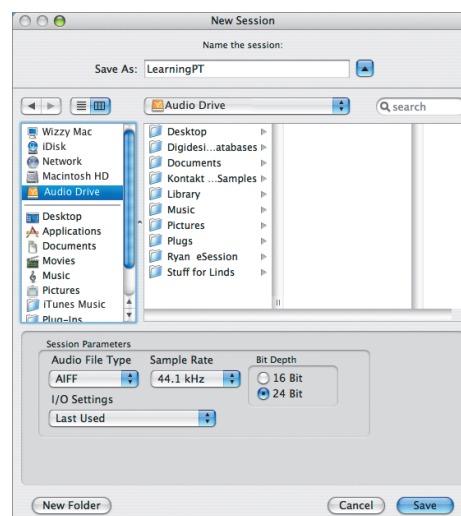
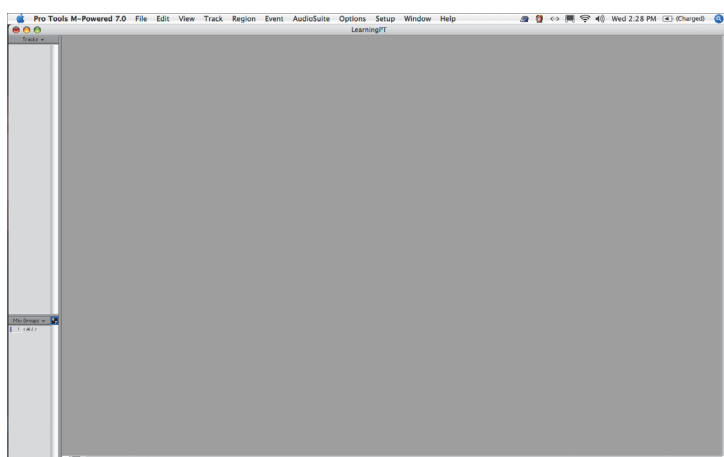
4

Name your session. This dialog box is also where you *name* your song and tell the computer where to save it. In the box where the file's name currently says Untitled, type "Learning PT." But then wait—*don't* click Save yet! This dialog box is also where you decide how and where to save the files. Mac users: See the blue triangle with the black arrow pointing down? Click that. The arrow will now point up. Windows users will see a drop-down menu when you click on the drop-down menu at the top of the box. This expands your view and shows you every hard drive connected to your computer, as well as the folders within your drives. Whenever you see a Save window like this one, get in the habit of expanding your window so you can see where you're saving your files.



5

Save your session. Make sure that you're saving your session file onto your external audio drive, which you should be able to select in this dialog box. Click your external hard drive to select it—and *now* you can click Save. Now you'll see a big empty window.



Note

Your computer's default setup might "point to" the Documents folder, which is on your internal system drive. You don't want to save your sessions here, because you would be recording to your internal hard drive. Remember to always save sessions to your external audio drive.

"So many audio formats—which one should I use?"

The good news is, there's really no wrong choice:

SDII is the Sound Designer 2 format and is the native audio format of Digidesign, which makes SDII less compatible with some other programs. Some experienced audio users use this format for specific technical reasons, but for the sake of compatibility, I would suggest new users not choose SDII as a format.

AIFF stands for Audio Interchange File Format. It was initially created for Macs but has become cross-platform over the years and is more and more prevalent. Being a Mac user myself, I typically use AIFF as my default format, but I've recently been told by a few prominent engineers that broadcast WAV is slowly becoming the format of choice.

WAV (Windows Audio/Visual) files are also called **BWF** or **broadcast WAV** files. Though initially developed for Windows, this is also now a cross-platform format and very common among Windows and Mac users.

So, where is your session? Before we get started making music, let's find your new session and see what has happened on your hard drive.

6

Hide Pro Tools. On the Mac, from the Pro Tools menu, choose Hide Pro Tools. In Windows, you can minimize the Pro Tools window or, if Windows Explorer is running in the background, simply click on it in the Task Bar at the bottom of the screen to bring it to the front.

Note

On the Mac, I prefer to use Hide Pro Tools as opposed to Minimize, because you have to minimize each open window, one at a time. The Hide option, on the other hand, hides the entire Pro Tools application regardless of how many windows are open.

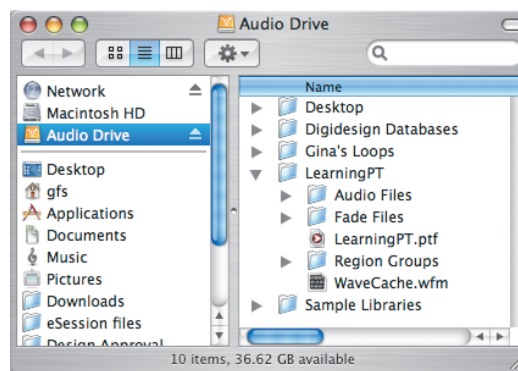
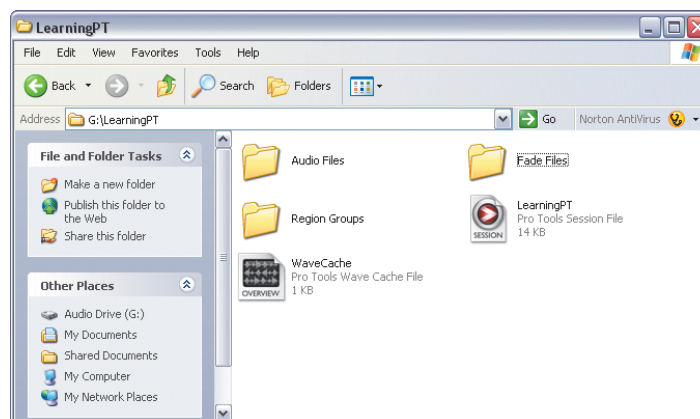
7]

Open your session folder. Open your external hard drive, and you should see a folder called Learning PT.

Double-click on the folder to open it and see what's inside.

When you make a new session, Pro Tools creates a folder with your song's name. Inside this folder, which contains your session file or song, Pro Tools creates four other folders, called Audio Files, Fade Files, Region Groups, and Session File Backups. You may also see a WaveCache.wfm file. This file helps redraw your audio waveforms faster.

- ◆ Everything you record in this song will be created as audio files and put into the Audio Files folder.
- ◆ Anytime you create a fade or a cross-fade, it will go into the Fade Files folder.
- ◆ Anytime you create a Region Group (more about these in a later chapter), that group is saved into the Region Groups folder.
- ◆ Last but not least is the very important Session File Backups folder. Pro Tools will make a safety copy of your song every 5 minutes and keep the last 10 versions. This is extremely helpful if you forget to save and the computer crashes. Simply open this Backups folder and open the last saved version. It's also helpful if you accidentally edit something incorrectly; you can always go back to a previous version and work with that.



8]

Go back to Pro Tools. On a Mac, click the Pro Tools icon in your Dock. In Windows, maximize Pro Tools by clicking on it in the Task Bar at the bottom of the screen. This brings Pro Tools back to the front, with your big empty window.

Fasten Your Seatbelts

Now we're back to our big, empty window. It's empty because we haven't created any tracks

So, it's time to do that.

EXERCISE 2:

Create Your First Track

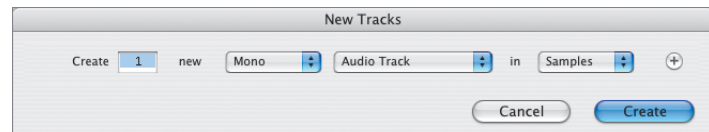
- 1] **Create an audio track.** Under the Track menu, choose New Track. A dialog box opens, asking about the kind of track you want to create.

Tip

*You'll want to get used to using the keyboard shortcut for Track > New Track, which is **⌘+Shift+N** for Mac, and **Ctrl+Shift+N** for Windows.*

- 2] **Choose the type of track.** If you click each menu option in the dialog box, you'll notice that you have a few choices in each field. You can choose the number of tracks you want to create, whether to record in mono or stereo, and what kind of track it is. We'll eventually try all of them, but to start out just create one Mono Audio track, which is the default. Where the menu currently says Samples, select Ticks. (I'll explain why later.)

Click Create to create your new track.

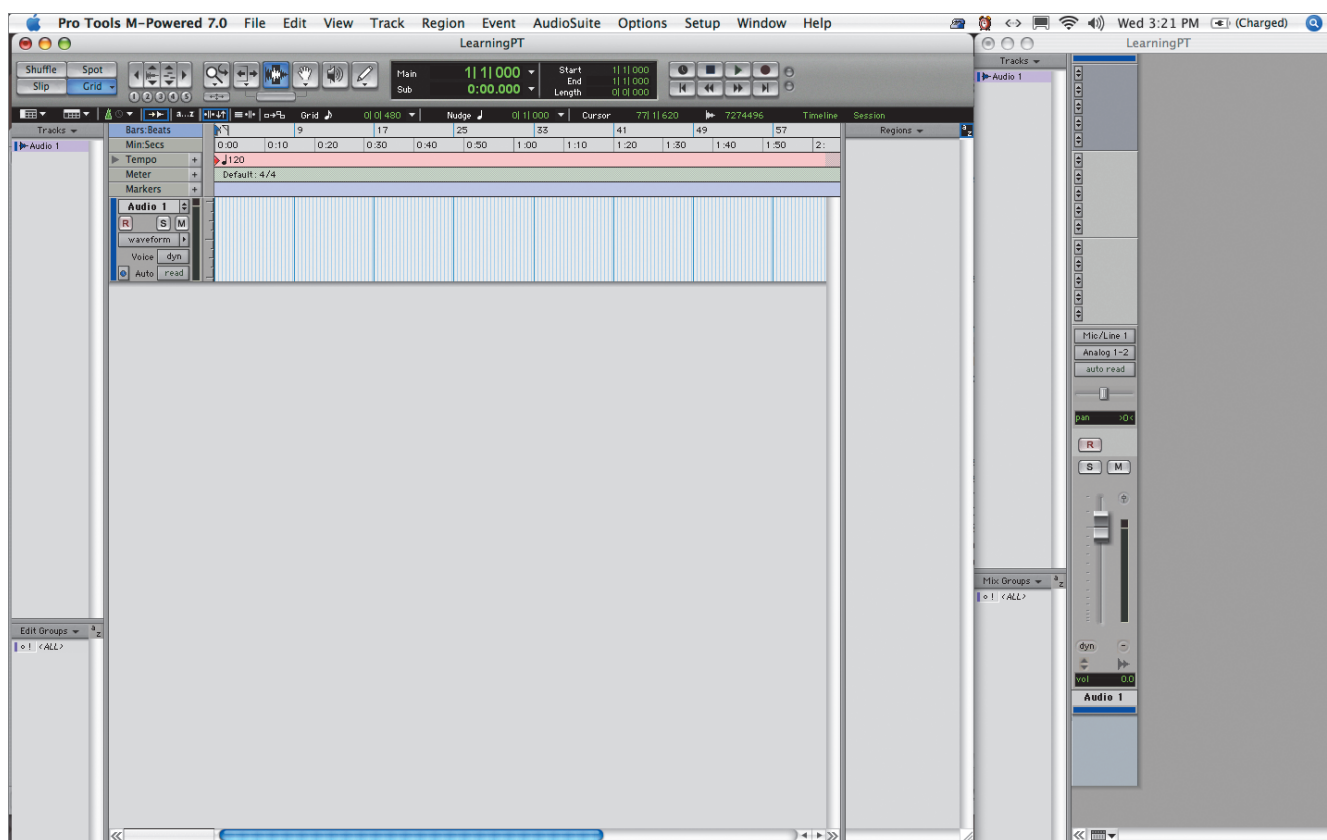


The Mix and Edit Windows

There are only two prominent windows in Pro Tools. One is the Mix window, which will act as your mixing console, and the other is the Edit window, which you will use to edit your music. To toggle between the two windows, use the keyboard shortcut Command+= (Mac) or Ctrl+= (Win).

If you're going to use Pro Tools a lot, an ideal solution is to have two monitors and put the Mix and Edit windows each on its own monitor. You can also resize the two windows to fit on the same screen. Below I've put the Edit screen on the left and the Mix window on the right.

If for some reason you don't see both windows automatically when you open a session, you can turn them on by selecting Show Mix or Show Edit in the Window menu.

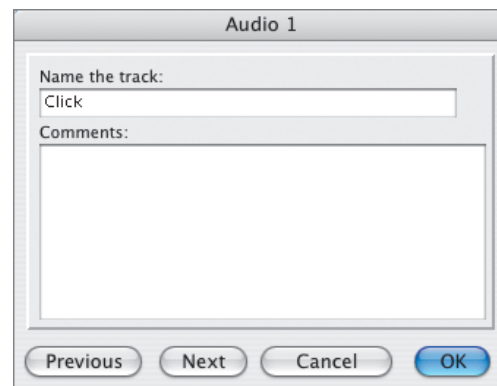


3]

Rename the fader. Now that you've created your first track, you'll see your first fader in the Mix window. The fader is at the bottom of a vertical column called a channel strip. The new channel is named Audio 1. Notice the same name in the Edit window.

To rename the track (in Pro Tools, tracks and channels are basically the same thing), double-click the track name Audio 1 in either the Mix window or the Edit window. A small window opens. There, type "Click" for the new name and then click OK.

So, our first track is going to become a click track, also known as a metronome.



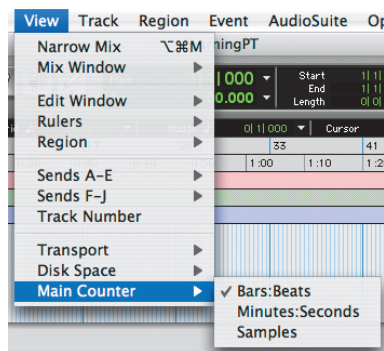
EXERCISE 3:

Add Your First Plug-in

When someone says “plug-in,” you probably think of an effect or a compressor or EQ—but instruments are plug-ins, too, and since a click uses a sound, it is considered an instrument plug-in. We’re going to work with other plug-in instruments such as synths and pianos later in the book, but for now we’re going to use a plug-in instrument that generates a click sound, so you’ll have a metronome to work with.

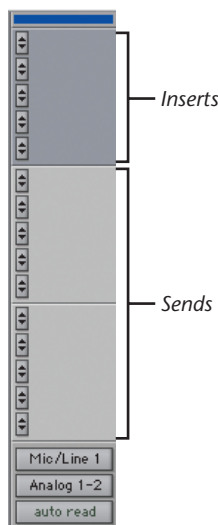
1]

Turn on Bars and Beats. First, make sure that Pro Tools is set to display in Bars and Beats. Under the View menu, go to the Main Counter submenu, and if Bars and Beats is not checked, select it to turn it on.

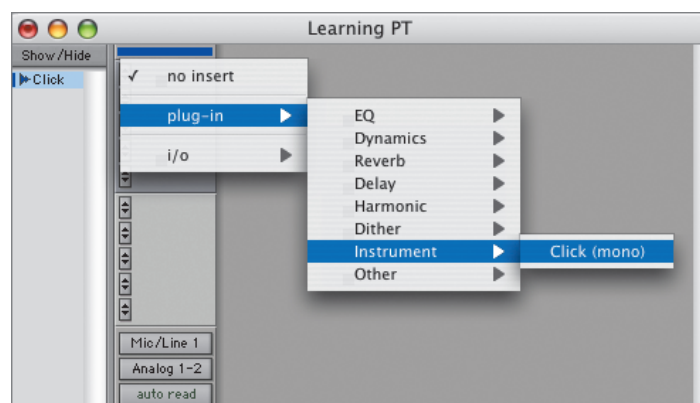


2]

Find Inserts and Sends. In the Mix window at the top of the channel strip, you’ll see five little buttons with tiny up and down arrows. This section of the channel strip is called Inserts. Below that are two identical-looking sections called Sends. For now, we’ll concentrate on Inserts only. This is the place where you put, or *insert*, your click instrument (and eventually your cool effects plug-ins and instruments).



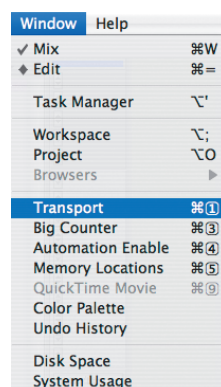
- 3]** **Insert a click.** At the top of your channel strip, click on the top Insert arrow, which reveals a pull-down menu. Choose Plug-in, and notice that Pro Tools categorizes all the plug-ins according to what they do. As I mentioned, the Click plug-in is considered an instrument, so scroll down to Instrument and choose Click.



- 4]** **Open the Transport window.** Under the Window menu, choose Transport.

Tip

The Transport window is not just for playing and recording—it's also where you can set your tempo, turn the metronome on and off, and set up pre-roll and post-roll.



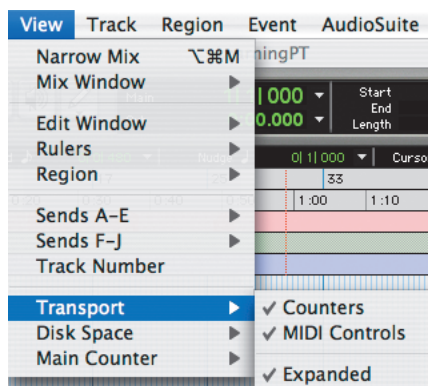
- 5]** **Turn on the metronome.** On the far-right side of the Transport window you'll see a metronome icon. Make sure that it's highlighted, which indicates that the metronome is on. You can also turn it on and off by pressing 7 on your numeric keypad.



6] **Play the click.** Now it's time to hear our click track. Press the spacebar to play, and press it again to stop. (You can also click the play and stop buttons in the Transport window.)

Note

If your Transport window looks different from what you see illustrated here, or if some icons are missing from your display, go to the View menu and choose Transport to enable everything.



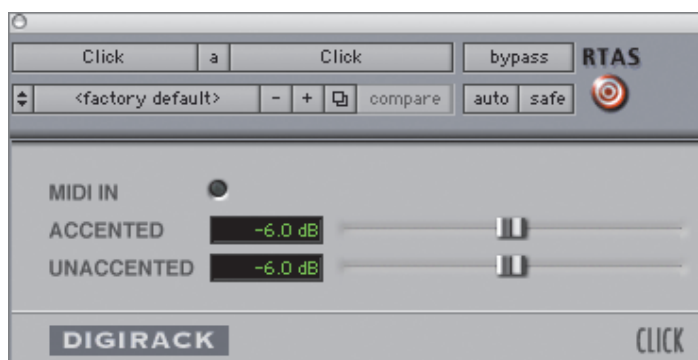
EXERCISE 4:

Change the Click Sound and Volume

When you first play the Click plug-in, you'll hear the default click sound, which is a computer-generated sound that I find to be a bit sterile. Let's make it more interesting.

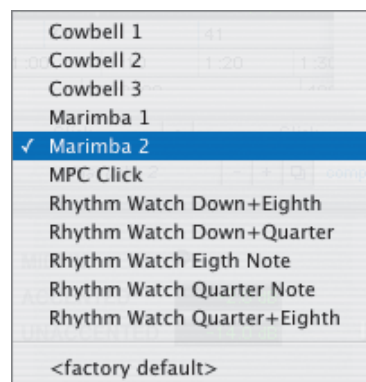
We're going to change the click sound to something more musical. Then we'll explore some of the plug-in's other options.

1] **Open the plug-in:** To see the Click plug-in window, click the Click insert on your channel strip in the Mix window. The plug-in window opens.



2]

Choose a new click sound. Click Factory Default, and you'll be given a menu of sounds to play for the click track. I use Marimba 2 for most things.



3]

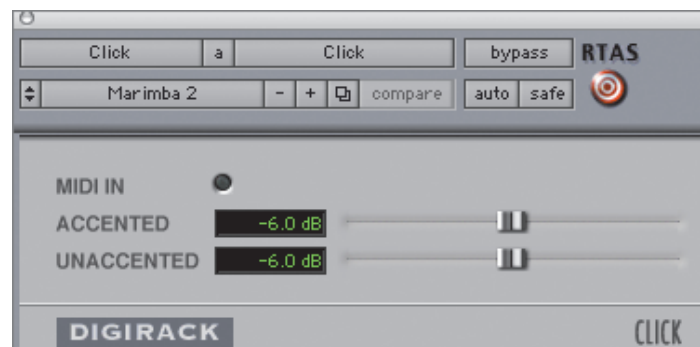
Audition the click. Now press the spacebar to play. You should hear a new click sound. Try changing to a few other click sounds to become familiar with the choices.

4]

Change the accent. Notice how the first beat is louder than all the rest? This is because some people like to work with Beat 1 accented, or louder than the other three beats.

In the Click plug-in window, you'll see two small sliders labeled Accented and Unaccented; these control the volume level. The first slider represents the volume of Beat 1, and the other slider represents the volume of Beats 2, 3, and 4 (if you're working in the default meter, 4/4).

If you try to set these fader levels at the same volume, you'll find it's not very easy to be exact. One quick way to put all beats at the same volume is to hold down the Option key (Mac) or the Alt key (Win) and click both sliders. The levels will go to 0, and both sliders will be at the same level.



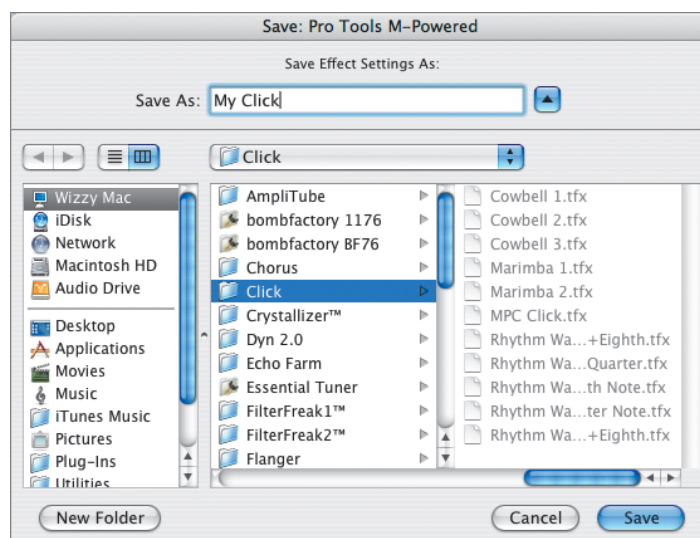
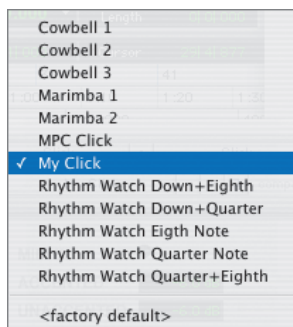
Tip

Clicking while holding the Option key (Mac) or the Alt key (Win) sets most everything in Pro Tools to the default setting. Try it: Go to the Mix window and move your fader's volume slider up or down. Now Option+click (Mac) or Alt+click (Win) on the fader to reset it to 0.

5

Save your metronome setting. Click the two tiny up and down arrows to the left of the name Marimba 2, and choose Save Setting As. Name it "My Click."

Now that you've saved this setting, the next time you create a song, you can open your saved Click instrument by choosing My Click from the menu.



6

Save the session. Under the File menu, choose Save. Or get in the habit of using the shortcut Command+S (Mac) or Ctrl+S (Win).

EXERCISE 5:

Change the Tempo

Now that you've created your own click, you'll want to be able to use it at different tempos.

- 1] **Open the Transport window.** The Transport window may still be open. If it's not, select Window > Transport again. Or use the short-cut Command+1 (Mac) or Ctrl+1 (Win), using the 1 on your numeric keypad.



- 2] **Turn off the Conductor.** See the little icon of the man conducting in the Transport window? That's the Conductor, which you'll learn more about in Chapter 10. Click the Conductor icon to turn it off for now.

- 3] **Set a manual tempo.** When your Conductor is off, Pro Tools uses the manual tempo setting. At the far right in the Transport window is the Manual Tempo field.

The default tempo is 120 BPM. Type your desired tempo into this field—100 (for 100 beats per minute), for example—and press Return/Enter.



Warning

You must press Return or Enter. If you don't, the tempo will not change.



4

Play the click. Press spacebar. Your click track should be playing more slowly now.

Setting the Tempo with a Finger Tap

If you're sitting with your guitar or piano and you have a song but no idea what the tempo is, it's very handy to be able to tap your own tempo. To enter your own tempo by tapping, first make sure the Conductor is turned off. Move the cursor to highlight the Tempo field, and then repeatedly tap the T key on your keyboard to the beat of your song. Watch the Tempo field and see the number change as you tap.

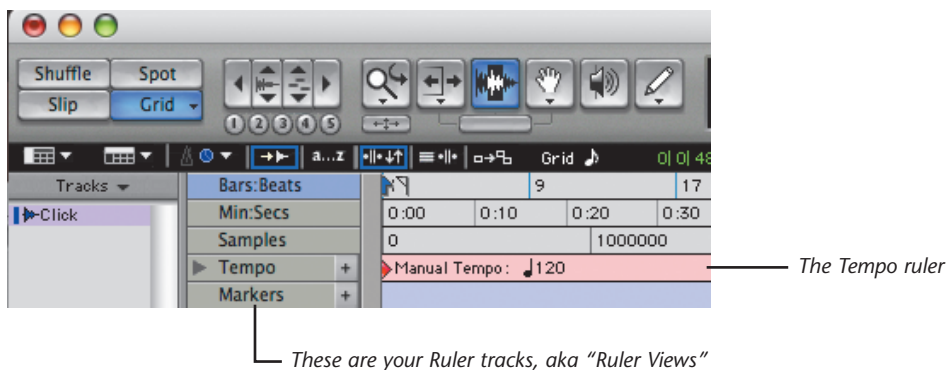
EXERCISE 6:

Get to Know the Ruler Timeline

Open the Edit window and maximize it to make it larger. At the top is a long rulerlike section called the Timebase Ruler (or Ruler view), which displays your song from beginning to end, in various measurements. You can completely customize the selection of rulers you see on the screen, so let's first get to know which ones we need; then we'll remove the ones we won't be using.

Working with music, you'll mostly use the Bars and Beats, Minutes and Seconds, Markers, Tempo, and Meter rulers.

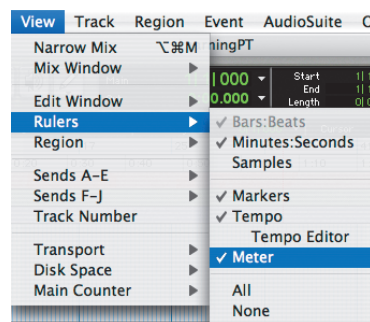
- ◆ The Bars and Beats ruler shows your song measured and divided into bars made up of beats. This allows you to keep everything in sync as you edit arrangements quickly and easily. Looking at the Bars and Beats ruler, it's easy to tell that the chorus starts at Bar 32, or that the song ends at Bar 99.
- ◆ The Minutes and Seconds ruler helps you keep tabs on your song's length, or at what point a certain section of a song (such as a verse or chorus) begins and ends. I use the Minutes and Seconds ruler to make sure that my song isn't running too long, or that I don't have two minutes of intro before the first verse, and so forth.
- ◆ With the Marker ruler, you can label each section of the song with names like Verse 1, Chorus 2, or Bridge, so it's easy to know where you are at all times.
- ◆ The Tempo ruler displays the tempo of your song, and any changes to the tempo—in this case, 100 BPM.
- ◆ The Meter ruler displays the meter (or time signature) of your song, such as 4/4 or 6/8, and allows you to insert meter changes.



In this exercise, you're going to turn off the Ruler views you don't need and get them out of your way, because every inch of screen space is important in using Pro Tools. The more room you have to work with on screen, the better.

- 1] **Choose your rulers.** Go to the View menu, and choose Rulers. This is where you tell Pro Tools which rulers you'd like to see in your song.

- 2] **Turn off what you don't need.** In the Rulers submenu, click to turn Meter on and Samples off. Meter should be checked, and Samples should not. (The Samples ruler is for precise, microscopic editing, which we won't be doing.)



Wrap Up

So you've made it through the first chapter. From here, you have a few more back roads to cover before you head down the highway—but at least you're behind the wheel and starting to cover some serious ground. Hang in there; it only gets better from here.