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VISUAL
QUICKSTART
GUIDE

REASON

FOR WINDOWS & MACINTOSH

Sample Chapter

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3

REASON OVERVIEW

In this chapter we'll take a quick look around the Reason interface and get an overview of what working in Reason will be like.

If Reason is your first music studio, chances are the interface looks to you like a mad scientist's lab. Don't panic; this chapter will help you get your lab in order before starting to create your first monster project.

Getting Around in Reason

The first thing you'll see when you launch Reason is the Tutorial Song (**Figure 3.1**). Anytime you have Reason running, you're looking at a *song*—the Reason file format. We'll use the Tutorial Song to see and hear what Reason instruments sound and look like, and to see how music looks after it's recorded.

The Tutorial Song is a typical finished Reason project, with stacks of knob-plastered devices and a host of music tracks.

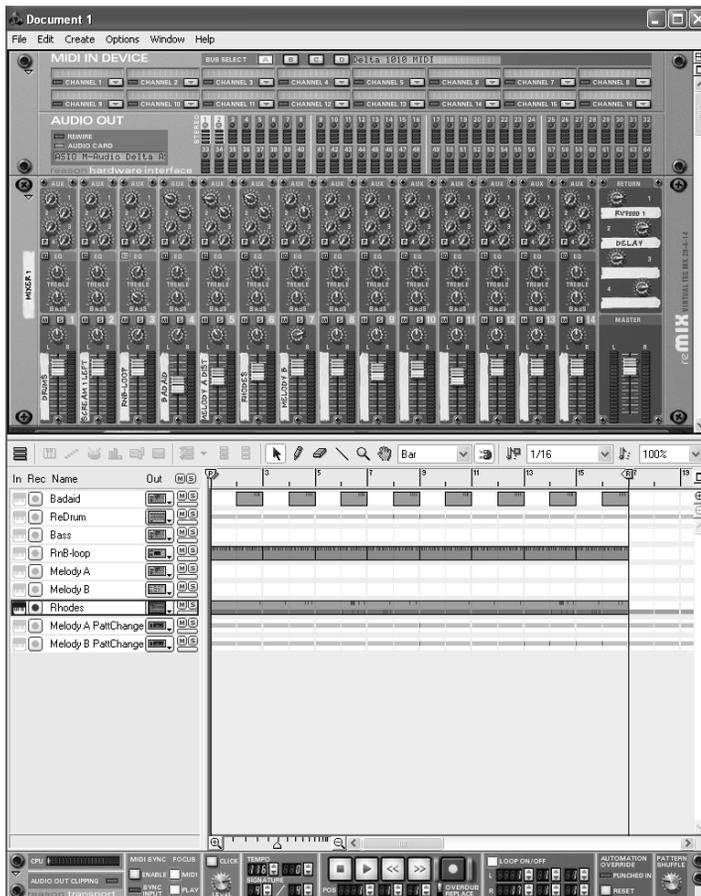


Figure 3.1 The Tutorial Song

Introduction to the Rack and Sequencer

The Reason interface has two windows: One reads music, and the other one plays it.

The lower window is your writing workspace and is called the *Sequencer*. Think of it as sheet music. The upper window, your studio, is called the *Rack*. It plays the notes and makes the sound—your orchestra (albeit a shiny modular one with lots of knobs!).

The Sequencer and Rack are invisibly connected and work together.

Start a new song by setting up the Rack. It's a one-step process, and you'll build your studio one instrument at a time as you write, adding more gear as it's needed. The Rack can be as complex or simple as you want it to be; it's up to you.

For now, let's look at the Rack used by the Tutorial Song (**Figure 3.2**).

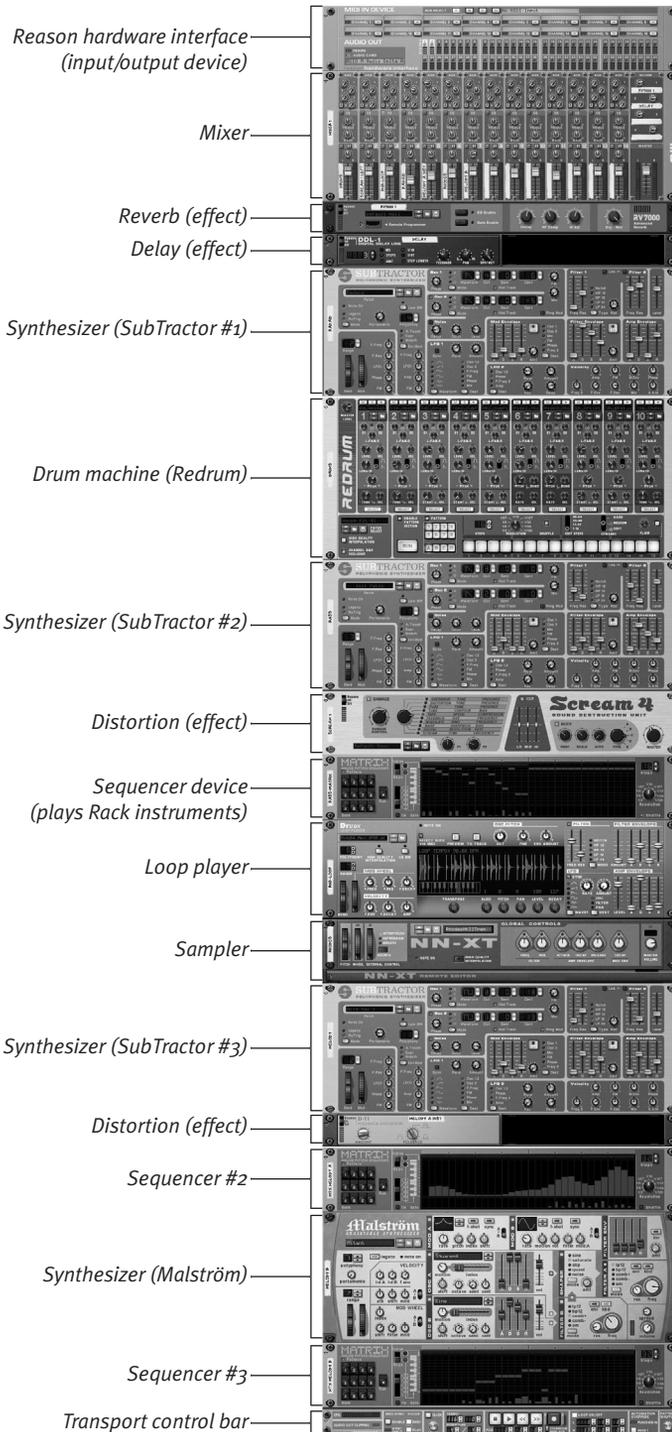


Figure 3.2
The Tutorial Rack

To play a song in Reason:

1. To listen to the song, press the spacebar, or click the play button on the transport bar at the bottom of the screen, under the Sequencer (**Figure 3.3**).

As the song plays, a *position bar* scrolls from left to right in the Sequencer.

2. To stop the song, press the spacebar again or click the stop button on the transport bar.

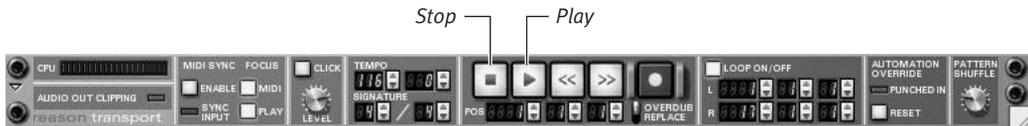


Figure 3.3 The transport bar's play button

Meet the Mixer

Now look at the Rack (top window) to see the Mixer (**Figure 3.4**). From the Mixer you can control the volume levels of all the instruments that are playing in the song.

Each vertical strip on the Mixer represents the sound coming from a particular instrument, and represents a mixer audio *channel*. As the song plays, signal levels go up and down on the channel indicators. The Mixer funnels all these channels into one stereo sound coming through your speakers.

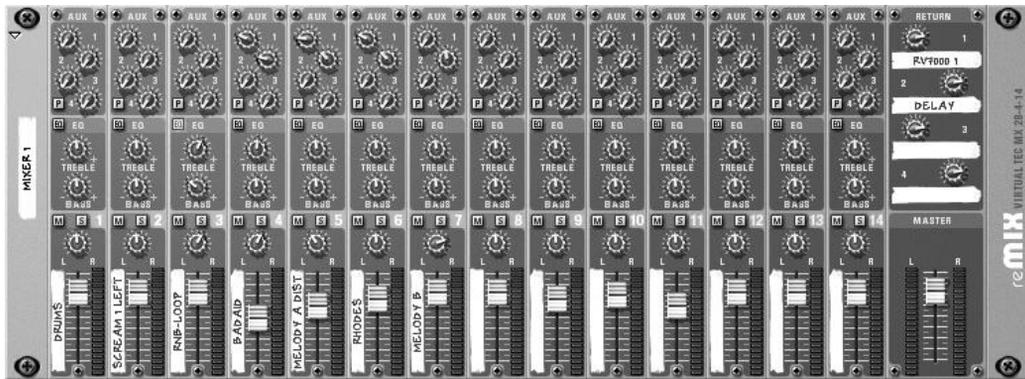


Figure 3.4 The Rack Mixer

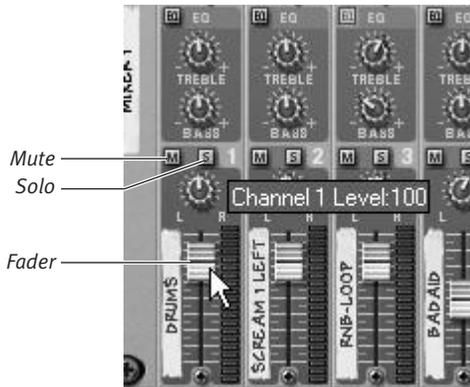


Figure 3.5 Moving channel faders

To use the Mixer:

1. With a song playing, move the channel fader on the Mixer up and down to change the volume for an instrument (**Figure 3.5**).
2. Hit the *Solo* button on a Mixer channel to hear that channel by itself. You can solo as many channels as you want—Solo just mutes the un-soloed channels.
3. Hit the *Mute* button to silence a channel. (Solo overrides mute; you don't have to “unmute” in order to solo.)

The Reason Work Process

For a typical project in Reason, you'll create a Mixer, add a device such as a drum machine or a synth, record the parts, listen to them, edit them, add more devices or parts as needed, fine-tune them, add effects, arrange the tracks, mix the song, master the final version, and save the results as an audio file that can be burned to an audio CD.

Here's what the process can look like in slightly more detail:

- ◆ **For a brief setup, start with a Mixer.**

The Mixer is where the instruments in your studio (such as a drum machine or a synthesizer) plug in so that you can hear them (more on this in Chapter 4, "Getting Started"). Once the Mixer is created, all the instruments will plug into it automatically (**Figure 3.6**).



Figure 3.6 A basic setup using a Mixer and a drum machine

- ◆ **Write a music track.** Create your first instrument; then move to the Sequencer window to write and edit the instrument's part (discussed in Chapter 4). Input the notes using a typical music keyboard, or just use your mouse. Working on one track at a time, you'll add some notes, play them back, and move on to the next track (**Figure 3.7**). Add another instrument and repeat the process.

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Figure 3.7 Write a drum track using the Sequencer.

- ◆ **Mix sparingly.** After two or more parts are written, you'll start adjusting the balance between the parts (**Figure 3.8**). Keep the mix rough, though—every added instrument changes the way the other instruments sound against one another. The real mixing work comes at the end (more on this in Chapter 10, “Arranging and Mixing”).
- ◆ **Tweak some knobs.** Once you have your basic tracks, it's time to experiment with the knobs and control levers on your instruments (**Figure 3.9**). Later you may decide to write knob movements during recording; we'll get to this in Chapter 6, “Working with Samplers.” You can even input pinpoint-accurate controller tracks in your track, using the Pencil tool (**Figure 3.10**).



Figure 3.8 Balance instrument levels in the Mixer.



Figure 3.9 Create exact volume changes for a synthesizer.

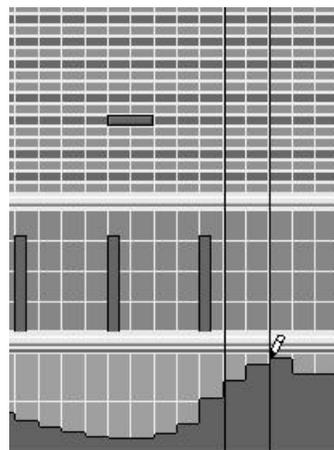


Figure 3.10 Quickly record synth knob movements directly in the Rack.

Preset Sounds: The Factory Sound Bank

You can make music in Reason without ever touching a control knob, using instrument presets from Reason's *Factory Sound Bank*. Audition or switch sounds during playback using Reason's redesigned *patch browser*. You'll use these *patches* to start exploring the different instruments, and learn how to tweak the controls to make your own patches later.

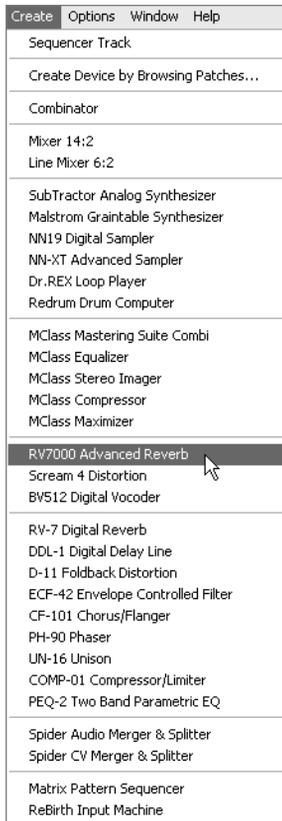


Figure 3.11 Add effects devices.

- ◆ **Add effects.** After recording and tweaking, you'll want to experiment with some effects (more on this in Chapter 8, "Effects"). Creating effects works just like creating instruments (**Figure 3.11**). And Reason's effects can do much more than add ambience—they can help you finalize a mix, bring instruments to the forefront, or make crazy otherworldly sounds with just a tiny bit of experimenting.
- ◆ **Arrange tracks.** Don't like your song the way it is? Move parts around, repeat sections, or add breaks and additional ornamental parts easily in Reason's *Arrange view* in the Sequencer (discussed in Chapter 10). Arrange view lets you shuffle parts, move or repeat song sections, and polish the overall construction of the song (**Figure 3.12**).

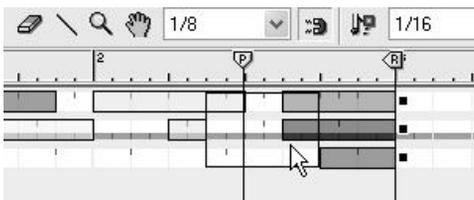


Figure 3.12 Drag selected sections from three adjacent tracks to a new location.

- ◆ **Fine-tune the mix.** Zero in on your final version by fine-tuning the mix without fussing with your instrument sounds. Make adjustments to the tone and balance of your tracks easily using Reason's powerful tone equalizing tools (EQs).
- ◆ **Master your song.** Use Reason's MClass *mastering tools* to smooth out or boost the levels of your tracks and optimize them for CD. Fine-tune the overall EQ, adjust the stereo spread, or add compression. Make the final version jump out in an audition by making it as loud as it can be without distortion.
- ◆ **Burn your music to CD and test it out.** Pop out multiple versions of your song as separate .wav files (**Figure 3.13**) and burn them to CD (more on this in Chapter 11, "Mastering Your Music").
- ◆ **Wrap up.** Burn a CD.



Figure 3.13 Export a song as an audio file.



Figure 3.14 Detach the Sequencer window.

Switching Windows

Working with Reason will involve a lot of switching between the Rack and the Sequencer windows. Switching is faster when they are detached.

To detach the windows:

- ◆ From the Windows menu, select Detach Sequencer Window (**Figure 3.14**). Or click the Detach button at the top-right of the Rack window.

Now you can see more in both windows, or move your Sequencer to another second monitor. Switch between them by clicking the window you want, or choosing it from the Windows menu. Faster still, hitting **Ctrl+Tab** in Windows switches you between the Rack and Sequencer; on a Mac, **Cmd+1** brings up the Rack and **Cmd+2** moves to the Sequencer.

What's in the Sequencer?

Let's look at where you will write "tracks," or parts (**Figure 3.15**).

The Sequencer window starts off with an overview of all the tracks in the song (the Arrange view). The Rack instruments are listed in the left column, and the parts are to the right.

Arrange view lets you drag parts around and decide how you want them all to fit together. The instrument column lets you create new tracks (you can send more than one track to the same instrument) or switch devices for a given track.

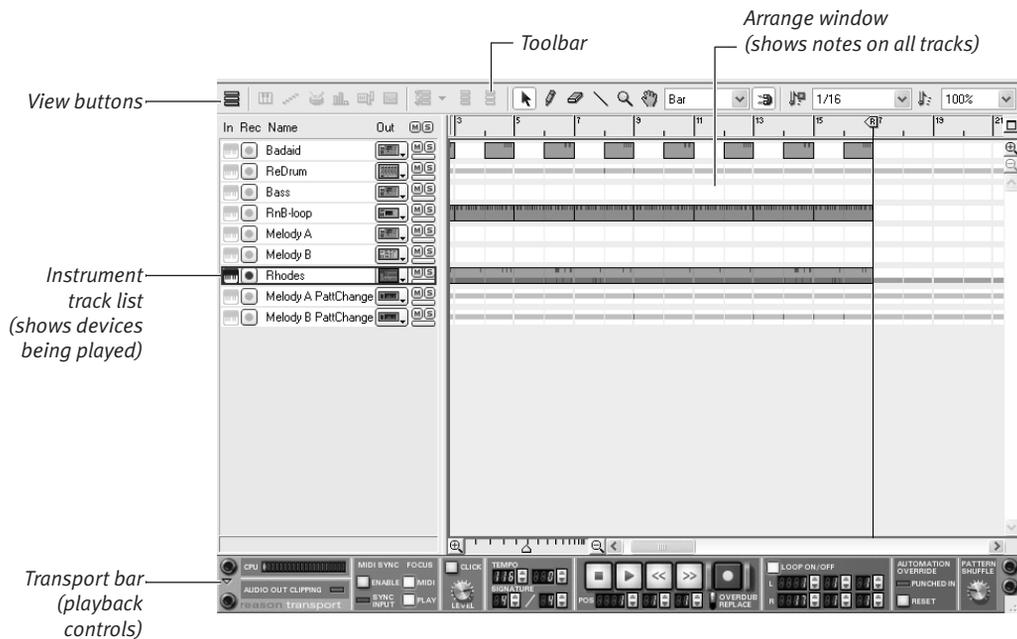


Figure 3.15 The Sequencer in Arrange mode

What Is a Sequencer?

Anything that can store a series of notes and then read them back is a sequencer.

One low-tech analogy for a sequencer is a player piano holding sheet music. A sequencer does both tasks. It stores the parts and then plays them back. The Rack is the piano that makes the sound.

When you write in the Reason Sequencer window, you are essentially writing a score to be performed; you're not creating the actual musical performance. The music is not created until the Sequencer sends your score to the Rack, where your instruments perform it.

The advantage of Reason over our low-tech player-piano example is that any performance can be sent to any instrument. Want to hear how that bass line sounds playing a vocal sample? Send the same performance to a different instrument with just a click of the mouse.

MIDI: Computer Music Notation

Your Reason Sequencer speaks a language called MIDI (musical instrument digital interface). It records nuances of a performance without storing the actual sound, keeping track of “note on,” “note off,” “note length,” “note strength,” and more.

If you are using an external music keyboard to control Reason, chances are you're sending MIDI data into Reason via a five-pin MIDI cable.

For now, don't worry too much about the MIDI language because Reason translates it for you, in much the same way that Microsoft Word handles the code when you type a letter. (To learn how to import and export MIDI files into and out of Reason, see Chapter 10.)

The Sequencer Edit Mode

Edit mode is where you get in close and tell an instrument what to play. Unless you use alternative “Rack sequencing” (see Chapter 7, “Patterning”), Edit mode is where you’ll spend most of your writing time.

To use Edit mode:

1. In the Sequencer, select the seventh track down (“Rhodes”) in the left column of the Tutorial Song.
2. Click the Edit mode display button in the upper-left corner (**Figure 3.16**) to look at the track, or press Alt+Tab (Win)/Ctrl+Cmd+E (Mac).

You should now see a graph showing the notes in Track 7 (Rhodes), arranged on a grid (**Figure 3.17**).

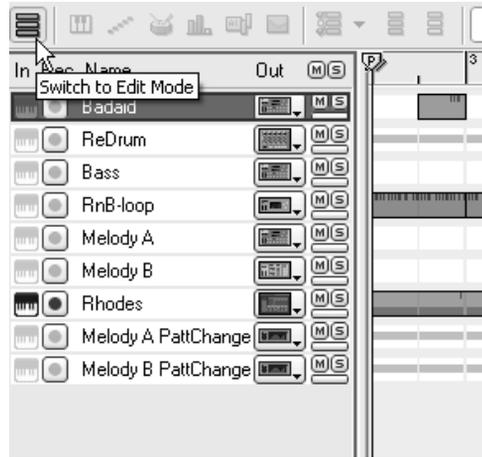


Figure 3.16 The Edit mode display button

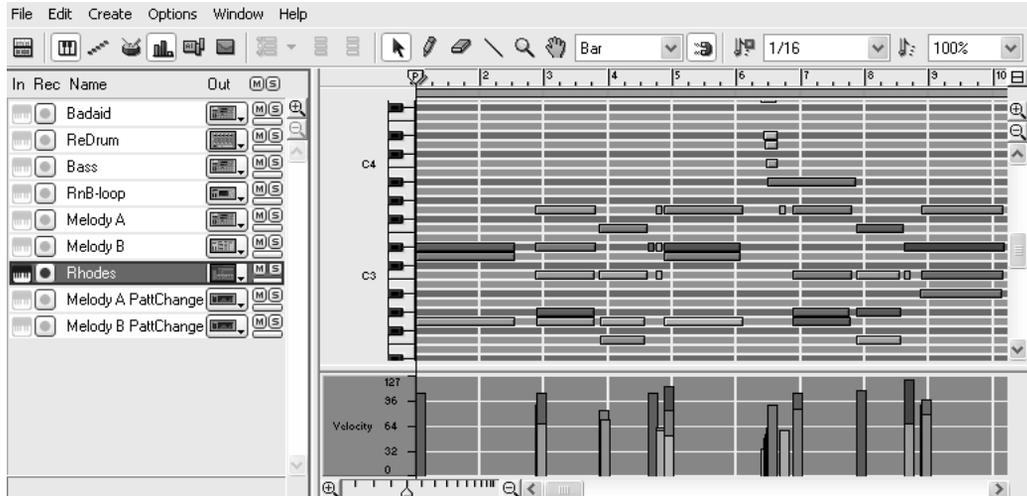


Figure 3.17 A track displayed in Edit mode

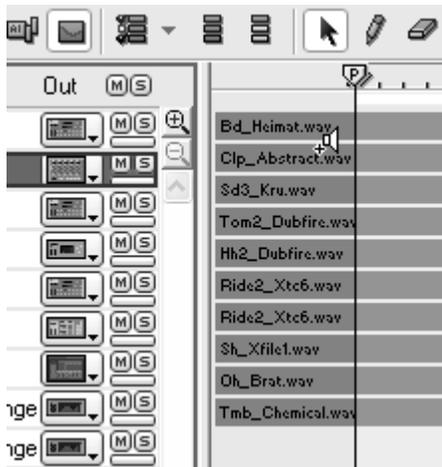


Figure 3.18 Audition notes on the keyboard ruler.

3. If necessary, use the scroll bar at the side of the window to scroll up or down and see the notes, or resize your Sequencer window.
4. Move your cursor over the keyboard ruler at the left margin of the track display; when the cursor changes to a speaker icon, click the mouse to audition notes (**Figure 3.18**).
5. To see more or less of the track, use the zoom buttons. Vertical zoom is at the upper-right (**Figure 3.19**) and horizontal zoom is at the lower-left (**Figure 3.20**).

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Figure 3.19 The vertical zoom buttons

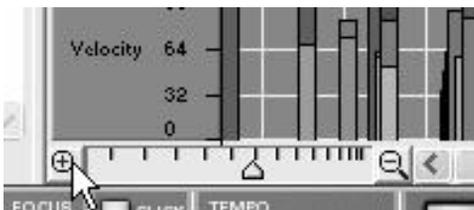


Figure 3.20 The horizontal zoom buttons

- Hit the play button on the transport bar (or press the spacebar) to watch the track play. You'll see the display scroll to the right as the song advances.

Longer notes sustain (**Figure 3.21**) and short notes are staccato (**Figure 3.22**). Soft notes appear in a lighter shade of red than those played very hard and loudly (**Figure 3.23**).

- Look below the note grid, and you'll see red vertical bars arranged under the notes. This is the *Velocity lane*; the bars represent the strength of the attack, or *velocity*, for each note.

✓ Tip

- Velocity is a note's speed of attack, not its volume. (*Volume* is another parameter that has its own controls.) If you're not sure what the difference is, see the sidebar "Velocity vs. Volume."



Figure 3.21
A sustained note

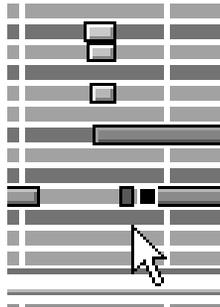


Figure 3.22
A staccato (short) note

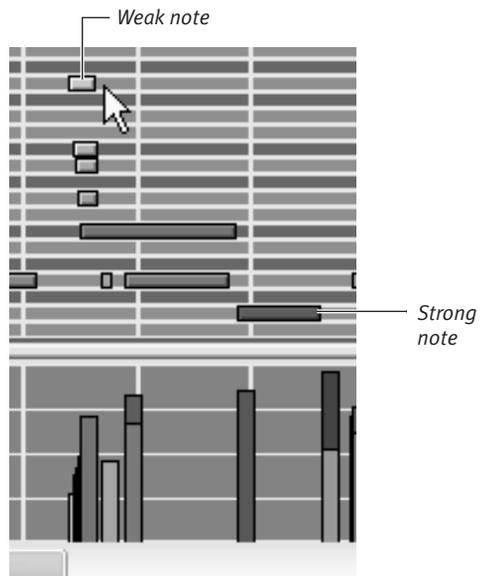


Figure 3.23 Strong vs. light notes

Velocity vs. Volume

Velocity is "relative note strength" and volume is "instrument level."

The term *velocity* comes from the way music keyboards keep track of how hard the performer is hitting a note. Though a piano responds directly to finger pressure, an electronic keyboard only measures how fast a key is struck, or how quickly the key moves between a high and a low sensor when played.

Measuring a key's speed is an economical and stable alternative to measuring pressure, because it minimizes the number of potential moving parts that can wear out; and speed is just as accurate as pressure as an indicator of the strength of note attack.

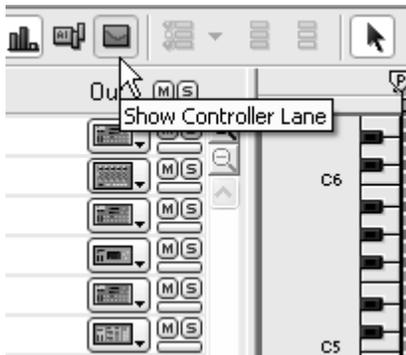


Figure 3.24 Click the Show Controller Lane button.

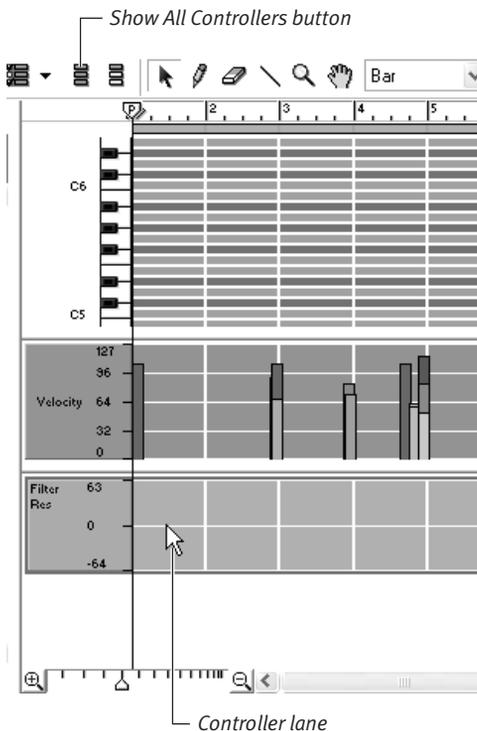


Figure 3.25 The Controller lane

Introducing Controllers

Now that you've looked closely at a track of music in Reason, let's go deeper and get a glimpse into one of Reason's most powerful features: control over instruments.

You can actually record nearly any movement of any knob, lever, or button on a Rack device. The movements are stored in the instrument's Sequencer track and then get sent to the Rack during playback. If you want to see what controller information looks like in a track, you must first tell Reason to display it.

To view Controller lanes:

1. Make sure your Sequencer is in Edit mode.
2. Click the Show Controller Lane button at the top of the Sequencer window (**Figure 3.24**).

This adds the Controller lane to the bottom of the Sequencer and activates the three controller buttons at the top of the window (**Figure 3.25**). (For details on controller lane editing, see "Controller Automation" in Chapter 6.)

The Back of the Rack

Reason has the potential to get very complicated when you know enough to get greedy about piling up Rack gear. What if you forget how all your devices are hooked up? What if you run out of Mixer channels? There's a whole other Rack view that we haven't explored—it's the back panel view showing how each device is connected.

To see the back of the Rack:

1. With the Rack window active, press Tab. Voilà! You can see all the cables (**Figure 3.26**).
2. Hold your mouse cursor over one end of a cable; after a short delay, a tool tip pops up, telling you where the other end of the cable is plugged in.

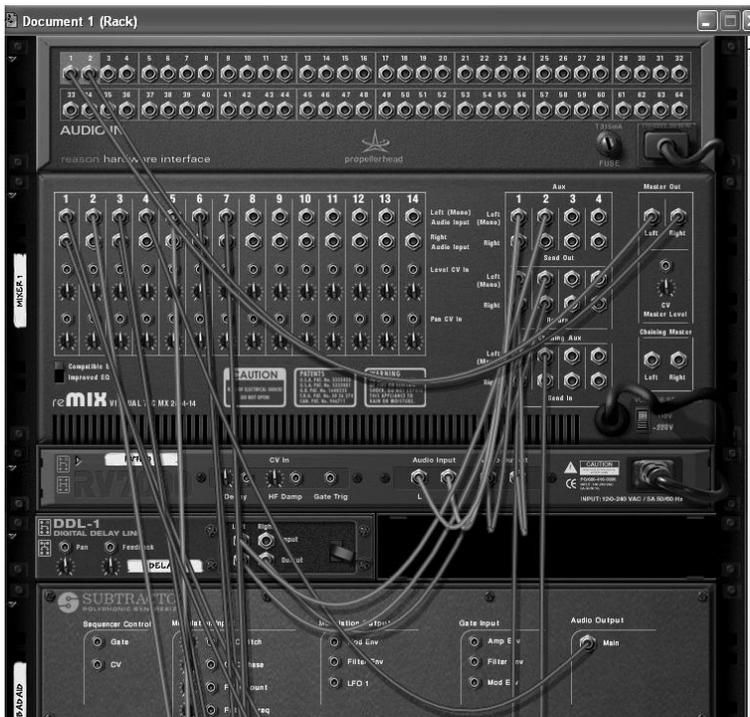


Figure 3.26 The Rack's rear panel

If you haven't tinkered much with real music hardware, this back view may look like spaghetti. Just remember that you'll add the Rack devices one at a time as you build up the tracks of your own song, and Reason takes care of most of the cabling for you.

The back panel really sets Reason apart from other music software: Reason instruments function just like real studio gear—you can hook them up any way you want, and the cables are easy and fast to move! (And you will never have to crawl behind a patch bay in a cramped studio while holding a flashlight in your teeth.)

So if you are using Reason for the first time, take heart. Reason automatically takes care of the rear panel for you in the same way it handles controllers: You don't have to mess with it if you don't want to.

Doing your own cabling is easy, and you can do some amazing things by cabling instruments and effects to one another. For a few samples of what can be done, see Chapter 9, "Cabling Setups."

Understanding Control Voltage (CV)

Now that we know the difference between audio signals and MIDI signals, let's talk about the other kind of signal that Reason uses extensively: control voltage. *Control voltage (CV)* is an electronics term that refers to the way synthesizers communicated in the days before MIDI and computer technology.

Before computers and digital language, synthesizers used electronic control voltages to relay anything from knob movements to “note on” and “note off” messages. Synthesizers were well established when computers arrived, so the new digital instruments were designed to fit the established electronic conventions.

As you start working with synthesizers, you'll become familiar with lots of electronic synth terms, such as *envelope*, *filter*, *resonance*, *LFO*, and others.

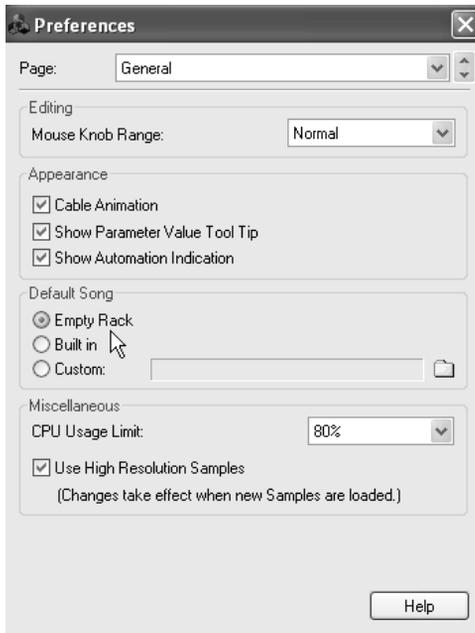


Figure 3.27 Change the Preferences to get rid of the Tutorial Song.

Getting Rid of the Tutorial Song

Now that you've had a basic tour of the Reason interface, it's time to get rid of the Tutorial Song so you can start your first project!

To get rid of the Tutorial Song:

1. Select Edit > Preferences (Win)/ Reason > Preferences (Mac).
2. Under Default Song, select Empty Rack (**Figure 3.27**).
3. Close the Preferences dialog box and close the Tutorial Song Rack window.
4. Select File > New.

A new, empty Rack and Sequencer open, and you're ready to start your first song from scratch.

