

Workshop

SonicCell Expandable Synthesizer Module and Audio Interface



Using SonicCell with SONAR[™]

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About the Workshop Booklets

Roland's SonicCell is designed for modern musicians. Using USB, It adds a huge set of sounds to your digital audio workstation (or "DAW") without adding to your computer's workload. It's also an audio interface that can get signals from mics, instruments, or other devices to DAW tracks for recording. SonicCell's Editor software allows you to program SonicCell from within your DAW. Onstage, its compact size also makes SonicCell the ideal companion for a laptop DAW, letting you perform and sing along with recorded tracks. Or use it to play back sequences and audio files from a USB memory stick.

Each SonicCell Workshop booklet focuses on one SonicCell topic, and is intended as a companion to the *SonicCell Owner's Manual*. This booklet requires SonicCell O.S. Version 1.11 or higher. You can download the latest SonicCell O.S. for free from *www.RolandUS.com*.

About This Booklet

This booklet contains instructions for using SonicCell with Cakewalk's SONAR 7. (What we'll cover also applies to SONAR 6.) First we'll discuss recording MIDI tracks in SONAR using SonicCell's synth sounds. Next, we'll talk about SonicCell as as an audio interface, telling you how to record both live audio and SonicCell's synth sounds as audio tracks in SONAR.



We'll assume you've installed and know how to operate SONAR—otherwise, consult SONAR's built-in documentation in its Help menu. We'll also assume you've read the *Using SonicCell with a DAW* and *Using SonicCell as an Audio Interface* Workshop booklets, that both SonicCell and your computer are hooked up and turned on, and that you're listening through SonicCell.

Understanding the Symbols in This Booklet

Throughout this booklet, you'll come across information that deserves special attention—that's the reason it's labeled with one of the following symbols.

- A note is something that adds information about the topic at hand.
- A tip offers suggestions for using the feature being discussed.

Warnings contain important information that can help you avoid possible damage to your equipment, your data, or yourself.

Configuring SONAR to Work With SonicCell

You've got three things to prepare in SONAR for using it with SonicCell: SONAR's audio system, the SonicCell Editor, and SONAR's MIDI system. The following sections walk you through these three operations.

Setting Up SONAR for SonicCell Audio



When you first launch SONAR, you'll encounter warnings about not having any MIDI outputs and inputs selected. Click Continue with No MIDI Output and then Continue with No MIDI Input for now.

Here's how to set up SONAR so you can hear what you're doing through SonicCell. We'll also prepare SONAR to record SonicCell's synth sounds and any live audio you're sending through it:

- 1 After launching SONAR, select Audio... from the Options menu to open the Audio Options window, and then click the Advanced tab.
- 2 Set Driver Mode to ASIO, and click OK, as shown in the screenshot on the next page.



Audio Options - ASIO	X
General Advanced Drivers	ОК
File System	Cancel
Enable Read Caching Enable Write Caching	
Playback I/O Buffer Size (KB): 64 Buffer Size (KB): 128	Help
Playback and Recording Synchronization	
Driver Mode: ASIO Irigger & Freewheel Best when sound card has a	
Dithering: Triangular word clock input.)	
Share Drivers With Other Programs Full Chase Lock (Best when chasing to MID) time code.)	
Use MMCSS (Windows Vista)	
Play Effect Tails After Stopping Timing Offset (msec): 0.000	
Remove DC Offset During Record	
Record Pre-allocate 0	
Record Latency Adjustment (samples)	
Device: Roland SonicCell (1 in, 1 out)	
Manual Offset: 0 ASIO Reported Latency. 765	

Windows asks you to relaunch SONAR for your new settings to take effect.

SONAR 7 Producer Edition		
٩	Changes will not take effect until the next time you start the program. To make them take effect now, please choose Exit from the File menu, then start the program again.	
	<u> </u>	

- 3 Click OK, quit SONAR, and then relaunch the program.
- 4 After SONAR has restarted, close the Quick Start window and return to Audio... in the Options menu.
- 5 In the Audio Options General tab, set Playback Timing Master to 1: Roland SonicCell:OUT 1, and check to make sure the Record Timing Master is also set to the same thing, as shown here.

Playback Timing Master:	1: Roland SonicCell OUT L	Canc
Record Timing Master	1: Roland SonicCell IN L	Help
August Bit Depth:	24 G4-bit Double Precision Sugne	TICK
Stereo Panning Law.	0dB center, sin/cos taper, constant power	
Dim Solo Gain:	○ -6d8 ④ -12d8 ○ -18d8	
Default Settings fo	r New Projects	
Sampling Rate: 44100	· ·	
Mixing Latency		
Buffers in Playback Que	we: 2	
Buffer Sige:	9.8 msec	
Fast	Safe	
	Hz/stereo: 9.8 msec	
Effective latency at 44k		

6 Set Sampling Rate to SonicCell's sampling rate.

If you select a sampling rate other than the one SonicCell is using, you'll see a message telling you that's not possible, and that SONAR's sample rate's been reset to match SonicCell's.

\$ ONAR 1	7 Producer Edition 🛛 🛛 🔀
1	The default audio format is not compatible with one or more sound cards. It has been reset to 44100 Hz (32 bit), as suggested by the driver.
	CK

To use another sampling rate, change SonicCell's sample rate first as described in the *Using the SonicCell with a DAW* Workshop booklet.

If you want to work on a project in which audio's already been recorded, first set SonicCell's sample rate to match the project's.

7 Click the Drivers tab, and checkmark 1: Roland SonicCell IN L and 1: Roland SonicCell OUT L as input and output drivers, respectively, if they're not already selected.

heck/uncheck an entry to enal lick on a friendly name to edit it.		Canc
Input Drivers	Driver Name	Help
Friendly Name Roland SonicCell IN L	Roland SonicCell IN L	
Qutput Drivers		
Friendly Name	Driver Name Boland SonicCell OUT L	
Reland SociaCall OLIT I		
Roland SonicCell OUT L		

8 Click OK to exit the Audio Options window.

When you close the Audio Options window, Windows once again tells you that you'll need to relaunch SONAR.

9 Quit and then relaunch SONAR.

Setting Up SONAR to Use the SonicCell Editor

In SONAR you'll find the Cakewalk Plug-In Manager with which you register the SonicCell Editor as a plug-in for use with SONAR. Here's how:

- 1 From SONAR's Tools menu, select Cakewalk Plug-in Manager.
- 2 In the VST Configuration area, click Options.
- 3 In the Cakewalk VST Scan Paths window, click Add...
- 4 Navigate to your C drive, the Program Files folder—presuming you used the default install location—highlight the Roland folder, and click OK.
- 5 Back in the Cakewalk VST Scan Paths window, click OK—SONAR scans the displayed folders and displays all of its found plug-ins in the Cakewalk Plug-in Manager window. (You'll see the SonicCell Editor if you click VST Instruments (VSTi) in the left-hand pane.
- 6 Click Close to finish registering the SonicCell Editor.

Setting Up SONAR for SonicCell MIDI

In the following sections, we'll assume a couple of things about the way you're working. We'll assume

- *you've got SonicCell in Performance mode*—using SonicCell's PRST 01 Seq: Template performance to start with.
- you've connected a MIDI controller to SonicCell's MIDI IN jack—and that you've turned on SonicCell's USB-MIDI Thru parameter, as described in the Using SonicCell with a DAW Workshop booklet.

Here's how to get SONAR to exchange MIDI data with SonicCell:

- In SONAR, select MIDI Devices... from the Options menu to open the MIDI Devices window.
- 2 In the Inputs and in the Outputs panes, select 1:Roland SonicCell so it's checkmarked as shown here:

Inputs		Cance
Friendly Name	Device Name	Help
 1:Roland SonicCell 	1:Roland SonicCell	<u> </u>
Outputs		
Friendly Name	Device Name	
Microsoft GS Wavetable	Microsoft GS Wavetable S 1:Boland SonicCell	
Microsoft GS Wavetable		

3 Click OK.

- 4 From the Options menu, select Global... to open the Global Options window.
- 5 Make sure that Always Echo Current MIDI Track is checkmarked so that your SonicCell patch plays as you sequence, and click OK.

SONAR is now set up to exchange MIDI data with SonicCell.



Creating a SonicCell Editor Track

You'll need to do this first so you have an easy way to select patches for your SonicCell synth tracks.

- 1 Select an unused audio track in your project, or add a new one.
- Click the track's Restore Strip Size button to display its settings.

Insert Audio Track	
Tubere Hodio Hidek	
Insert MIDI Track	5
Insert Multiple Tracks	
Insert Track <u>F</u> older	
Insert From Track Template	۲
Deļete Track	
Mute	
Archi <u>v</u> e	
Solo	1
Arm	
Track Properties	
Widget Tab Management	





If the new track doesn't look like what you see here, click the All tab at the bottom of the tracks area to reveal all of the track's settings.

- 3 Right-click in the track's FX area and select VST SonicCell Editor from the DXi Synth menu.
- 4 The SonicCell Editor launches and retrieves SonicCell's current settings.





Changes you make to SonicCell using the Editor affect SonicCell's current performance, or—if you're in Patch mode—its current patch.

5 To close the Editor window at any time, click its Minimize button—it then appears as a small launcher above the Task bar. To re-open it, click the launcher's Restore Up button.

Once you've set up the editor, you can click its track's Minimize Strip button to shrink the track vertically.

We recommend renaming the track "Editor" to make it easy to locate as your arrangement grows in complexity.

Using the SonicCell Editor



You'll find detailed instructions for using the SonicCell Editor in its manual, which you can display by clicking the Help button in the SonicCell Editor window. What follows here are some quick instructions to get you started.



Everything you set up in the SonicCell Editor is automatically saved in your SONAR project. When you reload the project, the Editor automatically sets up the current performance in SonicCell to match.

Selecting a Patch for a Part

You choose each patch you want to use in SONAR by selecting it for the part that a SONAR MIDI track is configured to play. Here's how:

- 1 Click the desired part's number in the PARTS area of the Editor window.
- 2 Select a patch for the part using the controls in the patch-selection area, circled in red on the previous page. To select a patch by:
 - memory location—click the PATCH NAME parameter's popup arrow to reveal SonicCell's patches organized by their memory locations.
 - *category*—click the CATEGORY parameter's popup arrow to reveal SonicCell's patches divided into categories.

You can select performances stored in SonicCell using the PERFORM NAME popup located above the part-selection area.

Digging Deeper

The SonicCell Editor lets you change the current performance's sounds in a range of ways. The mode-selection buttons to the left of the Editor window determine the parameters you see and can edit at any given time. They're divided into the following sections:

- SYSTEM—The buttons in this area allow you to set SonicCell's global behavior, and also get quick access to its input effect, a handy thing when you're recording live audio through SonicCell.
- *PERFORM EFFECTS*—These buttons edit the performance's effect setup.
- *PERFORM*—These parameters allow you to control the way each part plays its patch, and lets you add effects to the patch.
- *PERFORM PATCH*—These parameters allow you to dig right inside a part's patch in order to edit it down to its most basic characteristics.

Before using the PERFORM PATCH buttons, be sure to select the part that plays the patch you want to edit. You do this by clicking the part's number in the part-selection area at the top of the window.

Sequencing with SonicCell Patches

1 Open the project you want to work on, or create a new one.

In SONAR, you can identify MIDI tracks by the MIDI jack icon to the left of a track's name.

If no unused MIDI tracks are available in the project, right-click below the project's tracks, and select Insert MIDI Track from the popup.



3 Click the track you want to use, and click its Maximize Strip button to reveal its settings.



- 4 Click the track's Input popup arrow and select 1:Roland SonicCell -Ch. 1 from the popup menu.
- 5 Click the track's Output popup arrow and select 1-1:Roland SonicCell from the popup menu.
- 6 Set the Channel parameter to the number of the SonicCell part whose patch you want to sequence.

Your track's settings should look like this:



We've selected MIDI Channel 1 to play the patch belonging to Part 1.



If you haven't yet selected a patch on SonicCell to play from this track, use the SonicCell Editor to assign the desired patch to the part you want to use. Once you've done that, return to the MIDI track you've been setting up.

- 7 When you play your controller with your new track selected, you should hear the desired patch play in SonicCell.
- 8 Record your SonicCell track as you would any other SONAR track when you play it back, you'll hear its SonicCell patch play. (You can shrink the track vertically by clicking its Minimize Track button once you're done with it.)
- 9 Repeat Steps 2-8 for other SonicCell tracks you want to sequence.

At this point, your track is sequenced, and you'll hear it each time you play your project, including when you edit the track. However, the sound is still coming from SonicCell itself—it hasn't yet been recorded as an audio track in SONAR. We'll get to that in the next section.

Recording Audio from SonicCell in SONAR



If you haven't yet read the Using SonicCell as an Audio Interface Workshop booklet, read it now before proceeding. SonicCell offers lots of audio-interface options you'll want to know about.

Setting Up an Audio Track for Recording

Selecting Audio to Record

1 Open the project you want to work on, or create a new one.



You can spot audio tracks by the waveform icon to the left of a track's name.

- 2 If no unused audio tracks are available in the project, right-click below the project's tracks, and select Insert Audio Track from the popup.
- 3 Click the audio track to select it, and then its the Restore Strip Size button to reveal the track's settings.



Insert Audio Track
Insert MI <u>D</u> I Track 🛛 📉
Insert Multiple Tracks
Insert Track <u>F</u> older
Insert From Track Template 🔸
Delete Track
Mute
Archi <u>v</u> e
<u>S</u> olo /
Arm
Irack Properties
Widget Tab Management
5 F F

- 4 Click the track's Input popup arrow and select the SonicCell output from which you want to record. To record
 - a mic or instrument connected to SonicCell's Neutrik input jack select Left Roland SonicCell IN L.



- a stereo device connected to SonicCell's Neutrik and (LINE) R input jacks—select Stereo Roland SonicCell IN L.
- a SonicCell synth patch in stereo—select Stereo Roland SonicCell IN L.
- 5 Make sure the track's Output is set to Roland SonicCell OUT L. When you're done, the track's settings should look like this:



Turn Off Software Monitoring

- 1 If the track's channel strip isn't visible, click the track in the Track window.
- 2 Click the channel's Input Echo button so it's not lit.



As we noted in the Using the SonicCell with a DAW Workshop booklet, you do have the option of listening through SONAR if you want to hear its effects as you record. However, unless you need to hear one of the SONAR's effects while recording, we recommend listening through SonicCell since you may encounter latency listening directly through SONAR.

- 3 Record your track as you would any SONAR audio track. (As with a MIDI track, when you're ready to move to another track, you can reduce the size of the track by clicking its Minimize Track button.)
- 4 Repeat the steps in these last two sections for any other audio tracks you want to record.

Before Recording: SonicCell Audio-Recording Strategy

Since SonicCell can simultaneously be the source of synth sounds and your live audio, a little thought needs to be given to making sure you're only recording exactly what you intend to record on any given track.

When you want, for example, to record a single SonicCell synth sound on its own track, you don't want your other synth sounds to also find their way onto that track. Likewise, when you want to record a vocal or other live audio signal, you don't want to wind up with your synth tracks recorded on that live audio track.

Here's what you have to do.

- When you want to record a single synth track as a SONAR audio track
 - mute any other SonicCell synth tracks you have in the song by clicking their Mute buttons to light them, or mute their parts in the SonicCell Editor.

- If you've connected a mic, instrument, or other device to one of SonicCell's inputs, disconnect it until you're ready to record its audio onto a SONAR track.
- When you want to record live audio as a SONAR LE audio track, you can use either of two methods:
 - If you need to hear your SonicCell synth tracks as you record—send your live audio through SonicCell's input effect, and then set the TO COM parameter on the In/Out Routing screen to Input FX.
 - If you don't need to hear SonicCell synth tracks as you record mute them in SONAR LE by clicking their Mute buttons to light them, or mute their parts in the SonicCell Editor.

The End

We hope you've found this workshop helpful. Keep an eye out for other SonicCell Workshop booklets available for downloading at <u>www.RolandUS.</u> <u>com</u>.