

Using Impact LX with Sonar

Applicable to
Impact LX25, 49, 61 & 88



Sonar Integration Setup and Configuration

The Impact LX Cakewalk Integration has been verified with Sonar 8.5, X1, X2 and X3. The following instructions assumes you have one of these programs installed running on either Windows Vista, 7, 8 or higher.

Setup

Here are the steps you need to go through to get Cakewalk Sonar up and running with your Impact LX:

- Locate the "Impact LX DAW Integration" folder on the included DVD or download it from "My Downloads" on www.nektartech.com after registering your product
- Run the "DAW Integration Installer" in that folder and follow the on-screen instructions
- Plug-in your Impact LX and make sure it's switched on (if you didn't do so already)
- Launch Sonar and go to Edit/Preferences/MIDI/Devices (Image 1)
- Make sure both Impact LX and MIDIIN2 (IMPACT LX) are ticked. (Image 1)
- In Sonar Preferences, now go to MIDI/Control Surfaces
- Click on the yellow star icon. You can see what it looks like on image 3, top right corner
- The Controller/Surface Settings dialogue box now appears. Make the following selections as per Image 2:
 - Controller/Surface:** Impact LX
 - Input Port:** MIDIIN2 (IMPACT LX)
 - Output Port:** IMPACT LX
- Click OK
- Image 3 shows how the Control surface window should now look. Click Apply and Close.

That's it, setup is now complete.

Image 1

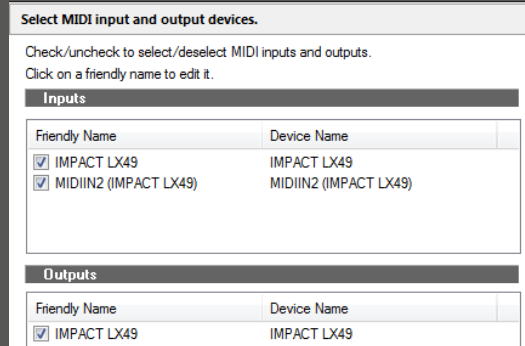


Image 2

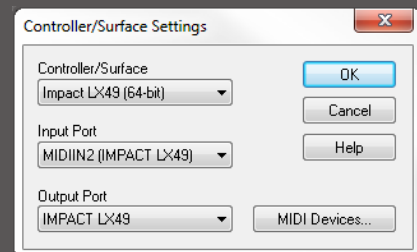
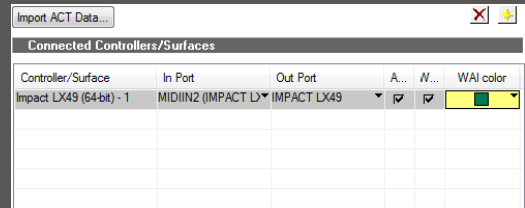


Image 3



Sonar and Impact LX Working Together

The following pages focus on how Sonar and Impact LX work together. If you have been using Sonar for a while, you may not need any additional information but it's always a good idea to revisit the extensive Sonar documentation to remind yourself about how Sonar functions work.

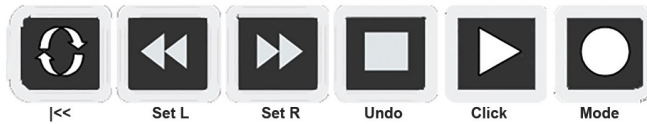
Track Changes

To navigate Sonar tracks from Impact LX, press [Shift]+[<Track] to go to the previous track and [Shift]+[Track>] to go to the next track. This is the same as using the arrow up/down keys on your computer keyboard.



Transport

The transport buttons give access to activate or deactivate the following transport functions: Cycle (loop), Rewind (in 1 bar decrements), Forward (in 1 bar increments), Stop, Play, Record.



In addition the buttons double up with functionality that's accessed by holding down the [Shift] button. The chart below tells you what each button and button combination does and how they behave.

Key Combination	Description
[Cycle]	Switch the loop/cycle between the Left and Right locators on/off
[Rewind]	Rewinds in steps of 1 bar. Press and hold for fast rewind
[Forward]	Forward in steps of 1 bar. Press and hold for fast forward
[Stop]	Stop playback
[Play]	Activate play
[Record]	Activate record. Press again to deactivate record but continue play
[Shift]+[Cycle]	Goto Left locator
[Shift]+[Rewind]	Set Left locator to the current song position
[Shift]+[Forward]	Set Right locator to the current song position
[Shift]+[Stop]	Undo last changes
[Shift]+[Play]	Switch the play back metronome on/off.
[Shift]+[Record] (Mode)	Switch Record Arm on/off for the selected track

Soft Take-Over

As you control different parts of Sonar with the same controls you would normally experience parameter jumping. This is what happens when a control's physical position, is not the same as the position of the parameter you are controlling.

To avoid parameter jumping your Impact LX is equipped with Soft Take-Over. This means that if a control is not in sync with a parameter, moving the control will not cause a change, until it's position matches the value of the parameter.

Let's say the faders have been used to control an instrument in Sonar. Now you are ready to control the Sonar Mixer and need the faders for that. When you move a fader it's unlikely that it will be in sync with the mixer channel volume that it's controlling because it was just used to control an instrument parameter.

The Impact LX therefore reads the parameter value from Sonar. If a fader is positioned at 0 and the Sonar parameter it is controlling, is positioned at 100, moving the Impact LX fader will not immediately cause the parameter to move. No data is sent by the fader until you reach value 100 at which point the Sonar parameter will update it's position.

Sonar Mixer Control

To control the Sonar mixer, press the [Mixer] button to select the mixer preset. The display's left dot is illuminated while the preset is selected and the Sonar mixer is being controlled. To monitor what's going on Impact LX automatically will bring the Sonar Console View in to view when you select the Mixer preset. You can hide the mixer window again from view by double pressing the [Mixer] button.

Channel Volume & Pan

With the mixer preset active, moving faders 1-8 will control the first 8 mixer channels in the Sonar Mixer. The 8 pots control pan for each or the corresponding channels.

Fader 9 controls the channel corresponding to the currently selected track so as you change tracks, you can quickly change volume while you are working. If you have 15 tracks in your song and the currently selected track is 12, that would result in faders 1-8 controlling mixer channel volume 9-16 and fader 9 controlling channel volume 12.

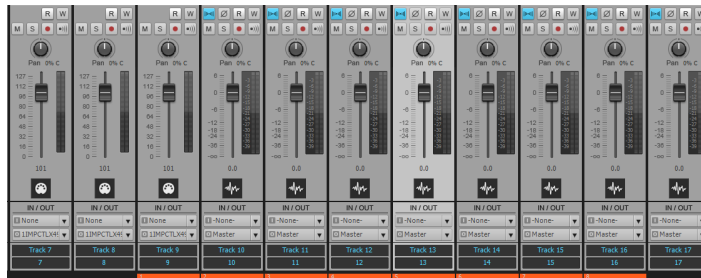
Mute & Solo

Fader buttons 1-8 control mute for each of the tracks the faders are assigned to control. If you prefer to solo tracks, you can press and hold fader button 9 while pressing fader buttons 1-8. The 8 buttons will now control solo for their corresponding tracks.

Bank Over (1-8), (9-16) etc

If your song contains more than 8 mixer channels you can bank over so the faders 1-8 control the next group of 8 channels. To do this, press [Shift]+[Bank>] (the second fader button). The faders, pots and fader buttons are now assigned to control channels 9-16. Push the same key combination again to control 17-24 etc.

To go back you press [Shift]+[<Bank].



In the above image Impact LX is controlling channels 9-16 highlighted by the orange WAI indicator. You can change the color of the WAI in Sonar's Preferences/Control Surfaces menu so if you have multiple control devices, you can identify each easily.

Master Volume

You can control the Master Volume fader of the Sonar mixer by pressing [Fader button 9] and then move fader 9 while the button is pressed.

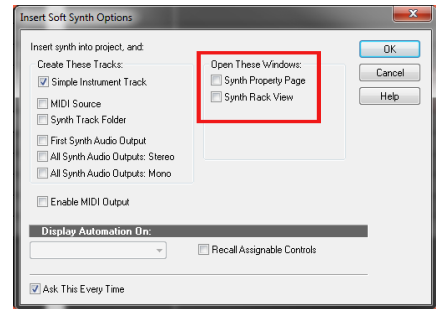
Upon release of the button, fader 9 will revert to control the current channel volume.

Sonar Instrument Control

Press the [Inst] button to select the Instrument preset. The display's center dot is illuminated while the preset is selected.

To control a synth, you must however first create a soft synth track.

From Sonar's Insert menu, select "Soft Synth/Square I" as a starting point. It's a good idea to have the "Insert Synth Options" Synth Property Page un-ticked, as it's otherwise easy to get confused about what Impact LX49 is controlling.



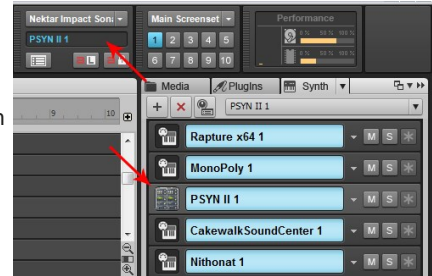
Open/close the Instrument Window

When you are on a soft synth track, you can press [Inst.] once, to bring the instrument GUI window in to view. Double press (press twice) [Inst.] to close the instrument window again.

Navigating the Synth Rack

Make sure you have created two or more instrument tracks in Sonar. Pressing [Shift]+[Patch>] will now navigate to the next synth in the rack and [Shift]+[<Patch] will navigate to the previous synth in the rack. The added benefit is that you are selecting the soft synth tracks in the Sonar sequencer at the same time so you can start recording straight away.

Note though, that selecting an instrument in the rack using the mouse or computer keyboard arrow keys doesn't select it for the control surface. Sonar's Controller/Surface Status field shows what synth Impact LX is currently assigned to control. In the image to the right, the red arrows point to the selected rack "PSYN II 1" which is the one controlled by Impact LX. If you click with the mouse to select another synth rack, the Controller/Surface Status will remain unchanged (i.e in this example, "PSYN II 1" would still be the synth controlled by Impact LX).



Changing Patches

You can change patches on many (not all) Sonar and VST plugins from Impact LX by sending out MIDI Program messages. A good option is to assign either the Octave or Transpose buttons to Program messages so these can be used to change patches on your Sonar instruments. Read page 12 in the printed guide for information about how to do that.

"Grab" Controls

The unique "Grab" function allows you to quickly assign controls to parameters on the instrument currently associated with Impact LX control surface. Here is how it works:

- Press and hold [Shift] on Impact LX
- Move the parameters you want to control one at a time, on the device associated with the current track
- Release the [Shift] button
- Move each of the controls in the order you want the parameters you moved to be assigned to those controls

Note: "Grab" is for quick temporary assignments but are retained independently for each track for as long as your project is active. Settings are not stored with the project.

Learn (or Saving “Grab” Settings)

Once you have created a grab setup, you may want to save it so you can recall assignments every time you use a particular instrument. This feature is currently not implemented but will be available in a future update. You can create a Nektar user account and register your Impact LX for notification of future updates. To get started, go to the following url: www.nektartech.com/registration

Sonar Learn

You can also assign Impact LX controls to parameters using Sonar’s own MIDI Learn menu, providing the instrument supports it.

First press the [Preset] button on your Impact LX

Next in Sonar, right-click on the parameter you want to control and select “MIDI learn

Finally move or press the Impact LX control you want to assign the parameter to

The Sonar MIDI Learn option gives you a whole new set of possibilities because you can use any of the 5 user presets to learn parameters in addition to using the Impact LX Grab (or Learn) features.

Read more about user presets in the printed Impact LX user guide.

GM Compatibility

Many of the Cakewalk plug-ins are GM compatible. This means you can use a GM preset in to control many of the parameters without having to first learn them.

For example, if you want to control the Cakewalk TTS-1, select Impact LX user preset 2 to control channels 1-8 and user preset 3 to control channels 9-16.

User Preset 1 is set up to control the GM instrument parameters so you can for example control the Roland GrooveSynth this way.

For a detailed chart showing which parameters the Impact LX user presets are set up to control, please check pages 26-30 in the printed Impact LX user guide.

Using the Pads

Drum instruments can be played from the Impact LX49 keyboard or its 8 pads.

Operating a drum instrument works the same way as any other instrument and using the Pad maps 1+2 you are able to play drum sounds straight away. However you may want to re-organize the sounds played by each pad for your playing style.

“Learning” Drum Sounds to the Pads

It's easy to change a pad note assignment using the Pad Learn function. It works as follows:

1. Press the function button labeled [Pad Learn]. The display will now blink, showing P1 (pad 1) as the default selected pad.
2. Hit the pad you want to assign a new note value to. The display blinks and updates to show the number of the pad you selected.
3. Press the key on the keyboard that plays the sound you want to assign to the pad. You can keep playing notes on the keyboard until you have found the note you want.
4. When you are done, press [Pad Learn] to exit and start playing your pads with the new assignment.

You can keep repeating steps 2. and 3. until you have created a complete Pad Map. The settings are stored over power cycling so you will not lose them as you power down your system. However it's a good idea to save setups that you may want to have access to regularly in the future to one of the 4 pad map locations in Impact LX49. To learn how to do that, go to the “Setup Menu” section in this manual.

Future Updates

We have strived to provide a feature complete experience with our DAW support and hope this is reflected in your experience with Impact LX. Over time, there will be updates that may include new features, added support for new version of operating systems and programs or bug fixes.

If you want to get automatic notifications of any updates and other news you can create a Nektar user account and subsequently register your product with us. Here is the URL to get started

[Http://www.nektartech.com/registration](http://www.nektartech.com/registration)