SONAR

nektar | IMPACT

LX25+ | LX49+ | LX61+ | LX88+

Using Impact LX+ with Cakewalk Sonar

nektar

www.nektartech.com
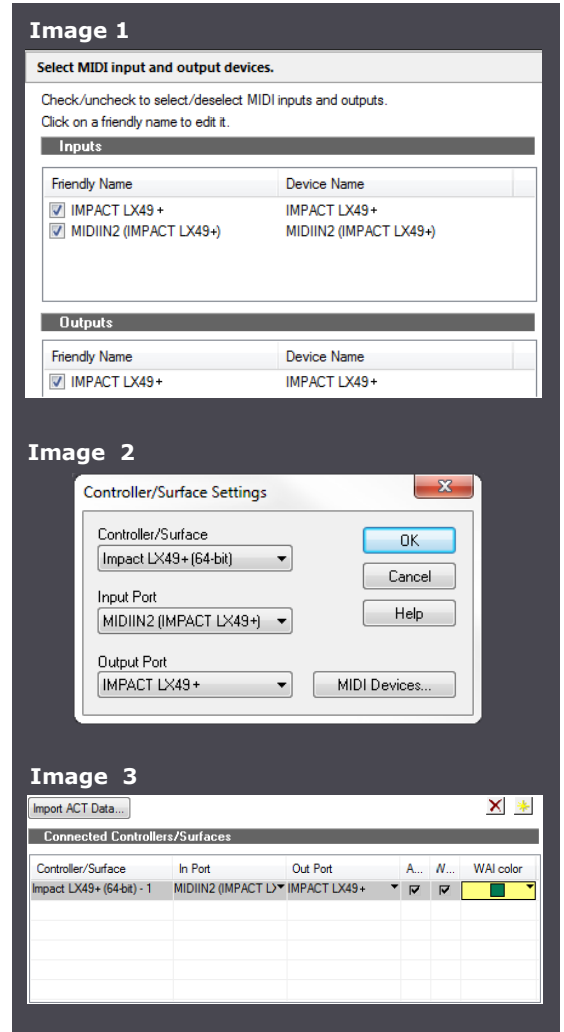
Sonar Integration Setup and Configuration

The Impact LX+ Cakewalk Integration has been verified with Sonar 8.5 or later versions. The following instructions assumes you have one of these programs installed running on either Windows Vista, 7, 8, 10 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_GX_LX+_Cakewalk_support installer included with this package and run it.

- 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 Impage 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

Select MIDI input and output devices.

Check/uncheck to select/deselect MIDI inputs and outputs.
Click on a friendly name to edit it.

Inputs

Friendly Name	Device Name
☑ IMPACT LX49+	IMPACT LX49+
☑ MIDIIN2 (IMPACT LX49+)	MIDIIN2 (IMPACT LX49+)

Outputs

Friendly Name	Device Name
☑ IMPACT LX49+	IMPACT LX49+

Image 2

Controller/Surface Settings

Controller/Surface
Impact LX49+ (64-bit)

Input Port
MIDIIN2 (IMPACT LX49+)

Output Port
IMPACT LX49+

OK
Cancel
Help
MIDI Devices...

Image 3

Import ACT Data...

Connected Controllers/Surfaces

Controller/Surface	In Port	Out Port	A...	W...	WAI color
Impact LX49+ (64-bit) - 1	MIDIIN2 (IMPACT L)	IMPACT LX49+	☑	☑	

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 [<Track] to go to the previous track and [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.

|<<   Set L   Set R   Undo   Click   Mode

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 button's LED 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.

LX25+: On the Impact LX25+, the 8 pots control 8 mixer channels by default. You can switch them to control Pan by pressing and holding [Mixer] while moving the pots.

Fader 9 (on LX25+ the single fader) 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.

LX25+: On Impact LX25+, you can use the pads to control mute for tracks 1-8. Press and hold [Mixer] while hitting pads 1-8. This will toggle mute on or off for the corresponding channels. Release the [Mixer] button and the pads revert to trigger MIDI notes. It is not possible to control the Solo function with LX25+.

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].

LX25+: On Impact LX25+ press and hold [Mixer] while pressing [Octave-] or [Octave+] to move the bank down or up.
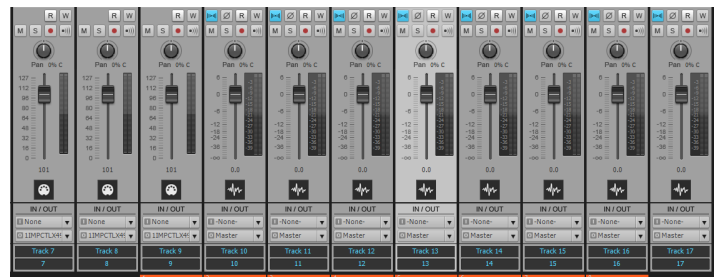
In the above image Impact LX+ is controlling channels 9-16 highlighted by the orange WAI indicator. You can change the color of the WAI in Sonar's Preferences/Control Surfaces menu so if you have multiple control devices, you can identify each easily.

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.

LX25+: On Impact LX25+, press [Mixer] and move the [Fader] to control master 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 LX+ is controlling.
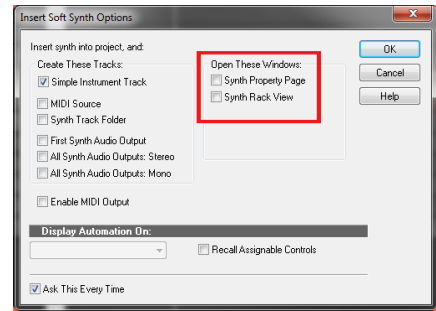
Open/close the Instrument Window

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 [Patch>] will now navigate to the next synth in the rack and [<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+).
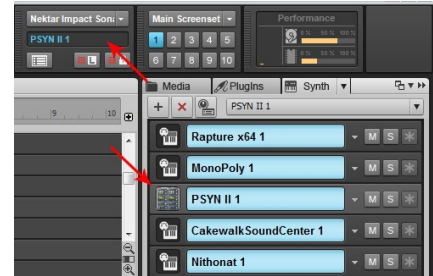
Changing Patches

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.

Controlling Instruments

With the [Inst.] (Instrument) preset selected, Impact LX+ will automatically map parameters for the VST instrument associated with the instrument/MIDI track you are currently on. If you select any other type of track, there are no parameters to control.

Impact LX+ is premapped for most of the popular VST instrument plugins available including of course the included instruments that come with Sonar. Select a synth rack slot that contains for example Pentagon

On Impact LX+, press the [Page] button until the blue LED button labeled "Default" is illuminated. The mapping now corresponds to the blue sillk screen printing on your Impact LX+.

Moving the faders therefore now control ADSR envelope parameters in Pentagon and Fader 9 is assigned to control the instrument volume.

The 8 pot's (on LX25+, this is the pots default assignment) are assigned to oscillator and filter parameters mainly.

Now press [Page] again so the LED labeled "User" is illuminated. The Nektar mapping for this page will typically augment the default mapping so for example you could have oscillator 1 parameters mapped on the Default page and oscillator 2 parameters mapped for the same controls on the User page. The idea however is that you customize this page to your needs. With Cubase you can however customize both Default and User control pages if you prefer a completely different setup. Read the next section to learn how that works.

"Grab" VST Instrument Mapping

The unique "Grab" function allows you to quickly assign controls to parameters on the device associated with the current track for the control page currently selected (User or Default).

- Press and hold [Shift] on Impact LX+

- Move the parameters you want to control one at a time, on the instrument 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

Save VST Instrument Mapping

"Grab" is for quick temporary assignments and are not stored with your project file. You can however save them to an Impact LX+ map file

Save the parameters you mapped to controls using the "Grab" function, by pressing [Shift] twice in quick succession. A saved map is recalled every time you create an instrument track with the corresponding VST instrument.

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 LX+ keyboard or it's 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 buttons labeled [Shift]+[<Patch] (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 LX+. To learn how to do that, go to the "Setup Menu" section in the printed manual.