

# Bitwig

nektar | IMPACT

LX25+ | LX49+ | LX61+ | LX88+



**Using Impact LX+ with  
Bitwig Studio & 8-Track**

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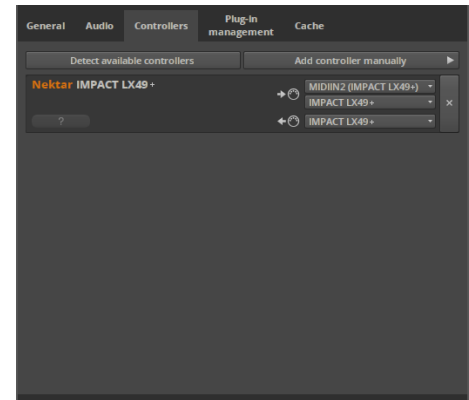
# Bitwig Studio Integration Setup and Configuration

The Impact LX+ Bitwig Integration has been verified to work with Bitwig Studio and Bitwig 8-Track, running on Windows Vista, 7, 8, 10 or higher as well as OS X and Linux. If you plan to run Linux please contact our support and we will tell you how to get up and running.

## Setup

Here are the steps you need to go through to get Bitwig Studio up and running with your Impact LX+:

- Make sure Bitwig Studio or 8-Track is already installed on your computer. If not, please install Bitwig first and open Bitwig Studio at least once, before running the installer for Nektar DAW integration software.
- Locate the Impact\_GX\_LX+\_Bitwig\_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 Bitwig and go to Options/Preferences/Controllers
- Click "Detect available controllers". Your Impact LX+ should now appear in the list.
- Click "Ok" and exit Device Setup.



That's it, setup is now complete.

If your Impact LX+ didn't appear after clicking "Detect available controllers" try adding it manually. The port configuration should look like the image to the right.

# Bitwig Studio and Impact LX+ Working Together

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

## Track Changes

To navigate Bitwig Studio's 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 Play Start Position (in 1 bar decrements), Forward Play Start Position (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
[Loop]	Switch the loop/cycle between the Loop Start and Loop End on/off
[Rewind]	Moves the Play Start Position backwards by 1 bar for each press
[Forward]	Moves the Play Start Position forward by 1 bar for each press
[Stop]	Stop playback and resume from Play Start Position. Press Stop again to go to Zero
[Play]	Activate play from the Play Start Position. Press again to pause
[Record]	Activate record. Press again to deactivate record but continue play
[Shift]+[Cycle]	Goto Loop Start
[Shift]+[Rewind]	Set Loop Start to the current song position
[Shift]+[Forward]	Set Loop End to the current song position
[Shift]+[Stop]	Undo last changes
[Shift]+[Play]	Switch the Click/metronome on/off
[Shift]+[Record] (Mode)	Toggle Overdub on/off

## Soft Take-Over

As you control different parts of Bitwig 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 Bitwig. Now you are ready to control the Bitwig 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 Bitwig. If a fader is positioned at 0 and the Bitwig 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 Bitwig parameter will update it's position.

# Bitwig Studio Mixer Control

To control the Bitwig Studio's mixer, press the [Mixer] button to select the mixer preset. The button's LED is illuminated while the preset is selected and the Bitwig Studio mixer is being controlled.

## Open/Close the Bitwig Studio Mixer Window

If the Bitwig Studio mixer is not in view when you press [Mixer], the action will bring it in to view. Press [Mixer] again to close it. While the Mixer preset is selected, your Impact LX+ continues to control the Bitwig Studio mixer, even if the mixer window is closed.

## Channel Volume & Pan

With the mixer preset active, moving faders 1-8 will control the first 8 mixer channels in the Bitwig Studio mixer. The 8 pots control pan for each of 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 of 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.

## Master Volume

You can control the Master Volume fader of the Bitwig Studio 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.

# Bitwig Studio Instrument (Device) Control

Pressing the [Inst] button will select Instrument mode. Instrument mode is really a Device mode because this is where you control all devices regardless of whether they are instruments, effects or containers.

In the following we will cover how the instrument preset works with devices in general. Start by pressing the Impact LX+ [Inst] button.

## Open/close the Instrument Window

Press [Inst] to bring the device lane in to view in Bitwig Studio. You can close the device lane by pressing [Inst] again.

If you are controlling a VST plugin device, press [Shift]+[Inst] to open or close the plugin GUI.

## Switching a Device on/off from Impact LX+

Any of the first 8 devices in a device chain, can be switched on or off from LX+. Press any of [Fader button 1-8] to change it's enable/disable status. This is a great feature to switch effects on/off for example in real-time. Pressing [Fader button 9] enable/disable the device marked as "Primary Device" in Bitwig, regardless of it's position in the current chain.

## Selecting a Device from Impact LX+

You can select any of the first 8 devices directly from Impact LX+. Press [Shift]+[one of the 8 fader buttons] to select a device from 1-8. To select the second device in a chain therefore press [Shift]+[fader button 2]. Pressing [Shift]+[Fader button 9] selects the device marked as "Primary Device" in Bitwig, regardless of it's position in the current chain.

## Changing Patches

You can step through the device patches from Impact LX+ at any time, regardless of which mode or preset is selected.

Simply press [Patch>] to go to the next patch or [<Patch] to go to the previous patch. Make sure the device you want to receive the patch change instruction is selected. A device is selected in Bitwig Studio, when you click on it with your mouse.

You can also open the Bitwig browser by pressing [Patch-] + [Patch+] at the same time. While the browser is open, you can use the 2 Patch buttons to navigate the active column which means they will step through the patch list by default. To select the highlighted patch, press [Patch-] + [Patch+] at the same time. This operation will also close the browser.

**Note 1:** If no device is selected then the browser panel will toggle instead.

**Note 2:** It's best to first open the browser and then select patches following because changing patches when the browser is closed reset filter settings. This may be fixed in a future version of Bitwig.

## Open/Close VST Plugin GUI

You can open or close a VST plugin's GUI from Impact LX+ by pressing [Shift]+[Inst] at any time.

## Controlling Devices

With the [Inst] (Instrument) preset selected, Impact LX+ will automatically map parameters for the Bitwig Studio devices associated with the track you are currently on. You can control both instruments, effects and container devices in this manner.

There are 3 options to control device parameters from Impact LX+:

- Nektar Default parameter mapping. Mapping match the blue silk screen printing on the panel of LX+.
- Bitwig Device Panel mapping. This option allows you to customize your mapping.
- Device Macro Control.

## Nektar Default Parameter Mapping

Nektar Default parameter mapping is straight forward. With the instrument preset selected, press the [Page] button until the blue LED labeled "Default" is illuminated. Impact LX+ now controls parameters corresponding to the blue silk screen printing for mapped devices. All Bitwig native devices as well as many VST instrument plugins have been mapped. Note though that while we have mapped a large selection of those, there may be plugins that can't be controlled using this method.

## Controlling Device Panel Parameters

Bitwig's Device Panel Mapping allows complete customization of your own mapping for any device using both faders and pots.

With the Instrument preset active, press the [Page] button until the white LED, labelled "User" is illuminated.

Next create a track with the FM-4 synth device. Moving the 8 pots are immediately assign to parameters as you will see when you move any of the 8 controls.

To change the parameter assignments, Right-click on the device name and select 'Edit Panel Mapping'.

- Click on the header reading "OP1/2". This brings up the device pages for this device.
- Select "Common Parameters" page. This is the page that contains the assignments for the 8 pots on Impact LX+.
- With your mouse, click on the 1st slot in the list labeled "OP1 Mod" and drag it over to "Noise Cutoff" and release.
- The 1st pot on Impact LX+ is now assigned to control Noise Cutoff.

Customize your common parameters page as described above by moving the slot corresponding to each of the 8 pots to the parameters you want.



You can map parameters to the faders as well by selecting the "Envelopes" page. The process is the same as described above. Your settings are retained in Bitwig and will be recalled every time you select the User page on Impact LX+. To read more about Panel Device Mappings in Bitwig, go to page 275 on the Bitwig documentation.

Once you are satisfied with your setup, make sure to Save the parameter mappings as default.

## Device Macro Control

With a device selected, you can control the 8 macro controls by pressing [Preset] and then using Pots 1-8.

This will only work while Preset 1 is selected. If you have selected any other of the 5 user presets on LX+, controlling macro's will not work. Go back and select preset 1 as described in the printed guide.

# Triggering Clips with Pads

Impact LX+ has been set up to control Clips and Scenes using the 8 illuminated pads.

First select "Mix" view in Bitwig Studio. This is the easiest way to follow what's going on. Make sure you have some clips already loaded, ready to be triggered.

## Clips

First press the [Clips] button on LX+. While the [Clips] button is illuminated, the pads are assigned to control clips.

You can control up to 64 clips for the current track using the 8 pads, via 8 banks of 8 clips each. To change bank, press and hold [Clips] and press a pad from 1-8 to select your bank. Once selected, release the button combination.

The pad LEDs tell you the status of each clip within the current bank:

- Off:** The clip corresponding to this pad is empty
- Yellow:** The clip corresponding to this pad has content and can be played.
- Green:** The clip corresponding to this pad is currently playing.
- Red:** The clip corresponding to this pad is currently recording.

Here is an overview of how you use the pads to not only trigger clips, but also record and delete them.

Functions	Button Combination
[Clips]+[Pad 1-8]	Selects clip banks 1-8 for a total of 64 clips for current track
[Pad 1-8]	If clip is empty hitting a pad will start recording (red). If clip has content, it will play (green)
[Shift]+[Pad 1-8]	If clip is empty (off), hitting a pad will set a fixed length*. If clip has content (yellow), it will be deleted

\* Press [Shift]+[Pad 1-8] will create a 1 bar clip by default (yellow), but hit the pad 2 times creates 2 bars (orange), hitting 3 times creates 4 bars (green) and hitting 4 times creates an 8 bar (red) clip.

## Enable/Disable Launcher Overdub

You can toggle launcher overdub on/off from LX+ by pressing [Shift]+[Clips]. This allows MIDI notes to be recorded to existing clips. If you create clips with a set length as described above, Launcher Overdub must be on to record on the clip. If you don't want to record over existing clips, make sure Launcher Overdub is off.



## Triggering Scenes with Pads

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Impact LX+ has been set up to control Scenes using the illuminated pads.

First press the [Scenes] button on LX+. While the [Scenes] button is illuminated, the pads are assigned to control Scenes. You can control up to 64 Scenes for the current track using the 8 pads, via 8 banks of 8 Scenes each. To change bank, press and hold [Scenes] and press a pad from 1-8 to select your bank. Once selected, release the button combination.

-If there is no content to play in a scene the corresponding pad is off.

-If there is content, by default the corresponding pad is yellow.

You can also customize the color for each scene. Press [Shift] and hit a pad repeatedly to select the color you want. Color selection is stored with your project song.

To play a scene, simply hit the corresponding pad. The pad will blink while playing.



## Using the Pads

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Drum instruments can be played from the Impact LX+ 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 LX+. To learn how to do that, go to the “Setup Menu” section in this manual.

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