# **Evo Touch**

FLUX:: Immersive

2023-02-06

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9.4.9	bzip2 - Modified zlib
9.4.10	Boost - BSL-1.0
	mimalloc - MIT
9.4.12	ni-media - MIT
9.4.13	pfft
	pybind11
	rtaudio
	rtmidi
9.4.17	concurrentqueue - Simplified BSD
	readerwriterqueue - Simplified BSD
	assimp
9.4.20	enet - MIT
	fmt
9.4.22	functions (Erik Rigtorp) - MIT
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9.4.25	jsoncpp - MIT
9.4.26	libcurl - MIT like
9.4.27	magic_enum - MIT
9.4.28	nanobench - MIT
9.4.29	nlohmann_json - MIT
9.4.30	openddl - MIT
9.4.31	openvr - "BSD 3-Clause ""New"" or ""Revised"""
9.4.32	poly2tri - "BSD 3-Clause ""New"" or ""Revised"""
9.4.33	pugixml - MIT
9.4.34	rapidjson - MIT
9.4.35	shared_recursive_mutex - MIT
9.4.36	sentry-native - MIT
9.4.37	sqlite3 - Public Domain
9.4.38	sqlite_orm - MIT 38
9.4.39	stb - MIT
9.4.40	utfcpp - BSL-1.0
9.4.41	unqlite - BSD 2-clause
9.4.42	argh (Andrey Mikhaylenko) - LGPLv3
9.4.43	chardet (Mark Pilgrim, Daniel Blanchard) - LGPL v2.1
9.4.44	charset_normalizer - MIT
	docopt (Vladimir Keleshev) - MIT
9.4.46	dotenv - "BSD 3-Clause""New"" or ""Revised"""

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# **1** Introduction

#### Product Page | Shop Page

### EVO Touch - The icing on the cake that brings out the magic !

The Final Touch module EVO Touch, also available in EVO Channel, is a polymorphic section offering a variety of different processors designed to adapt to the requirements of the material, with seven different processing modes including a frequency dependent DeEsser, Expander and a Transient and Sustain Designer.



# 2 General Settings

## 2.1 Bypass

Global bypass, when pressed, the signal is routed directly from the inputs to the outputs. Value Range : Enabled/Disabled Default Value : Disabled

# 2.2 Skin

The look of the EVO Touch user interface. Value Range : Light/Dark Default Value : Light

# **3 Module Settings**

## 3.1 Input

### 3.1.1 Input Gain

The input gain control trims the level of the signal at the input of EVO Touch. The meter shows both RMS signal (VU-Meter, blue) and peak signal (peak meter, green), from -24 to +18 dB range, referenced at -18dB.

Value Range : -24.0 dB / +18.0 dB

Colors : - Blue : RMS Value - Green : Peak Value

Default Value : 0.0 dB

#### 3.1.2 Drive

In EVO Touch a signal Drive is available direct at the input Gain for restoring and maintaining the vitality of the sound.

The drive module has been specially designed to add a soft saturation and warmth to your audio tracks.

Value Range : 0% / 100%

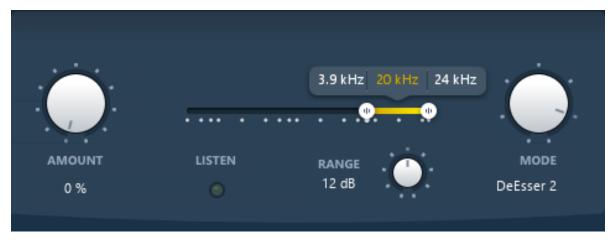
Default Value : 0%

## 3.2 Touch

Different types of material require different tools, whether it's a vocal cut, drums, guitar, piano or something else, it requires the accurate specific treatment for the material.

The Touch module in EVO Touch is a polymorphic section offering a variety of different processors designed to adapt to the requirements of the material, with seven different processing modes including a DeEsser, Expander and a Transient and Sustain Designer.

With the adjustable signal flow in EVO Touch the Touch module can be inserted where it's best doing its job, like having the DeEsser or Expander first in the flow, or the Transient designer after the compressor.



#### 3.2.1 Mode

Mode parameter defines the processor used by the touch module. Seven different modes are provided.

Available modes :

- Transient Boost
- Transient Kill
- Sustain Boost
- Sustain Kill
- DeEsser 1
- DeEsser 2
- Expander

Default Value : DeEsser 2

### 3.2.2 Amount

The amount of signal processed by the Touch module.

Value Range : 0% / 100%

Default Value : 0%

### 3.2.3 Release/Range

There is a release parameter for the following modes :

- Transient Boost
- Transient Kill
- Sustain Boost
- Sustain Kill
- Expander

Value Range : 1ms / 1000ms

Default Value : 20ms

The two deesser modes offers a range parameter, to limit the maximum gain reduction.

Value Range : 0dB / 24dB

Default Value : 12dB

### 3.2.4 Frequency Range

The Touch module works on a defined frequency range.

Value Range :

Minimal bound : 20Hz Maximal bound : Sampling Rate / 2

Default Value :

Inferior bound : 3.9kHz Superior bound : up to Sampling Rate / 2 Range width : Depends on the sampling rate.

### 3.2.5 Listen

When enabled, you can monitor the actual signal setup with the frequency range.

Value Range : Enabled / Disabled

Default Value : Disabled

## 3.3 Output

### 3.3.1 Output Gain

The output gain control trims the level of the signal at the output of EVO Touch. The meter shows both RMS signal (VU-Meter, blue) and peak signal (peak meter, green), from -24 to +18 dB range, referenced at -18dB.

Value Range : -24.0 dB / +18.0 dB

Colors : - Blue : RMS Value - Green : Peak Value

Default Value :  $0.0~\mathrm{dB}$ 

# 4 Geek Settings

These settings are available by clicking on the "Yves Jaget" icon.

### 4.1 Slope

The Slope sets the number of frequency-dependent components controlling the slope of the frequency response. One component, referred to as 1 (First-Order), gives a 6 dB/Octave slope, adding a second component, referred to as 2 (Second-Order), gives a 12 dB/Octave slope etc. The higher the Frequency Order is, the steeper the slope of the frequency response becomes.

Value Range: 6 / 12 / 18 / 24 - dB Per Octave Default Value: 6 dB/o

### 4.2 Release

Adjusts the release time for the transient processing envelope.

Value Range: 0.00 ms / 500.00 ms Default Value: 0.00 ms

### 4.3 Bandwidth

Value Range: Static BW/Dynamic BW/Flat Sum Default Value: Static BW

Static bandwidth provides a constant Q factor, no matter of the gain factor of the filter. It's computed by having a constant bandwidth at +-3 dB from 0 dB.

Dynamic bandwidth provides a dynamic Q factor, dependent on the gain factor of the filter. It's computed by having a constant bandwidth at +-3 dB from peak levels of the filter.

Flat Sum is a more traditional way of computing the Q factor. The bandwidth is constant for the gain factor divided by two.

# 4.4 Zero Crossing Threshold

The Zero Crossing refers to the amount of time the signal crosses the point of an amplitude of zero. It gives an indication on transient detection, as they tend to produce bursts of zero crossing.

# **5** Plugin Settings

Clicking the cogwheel symbol opens a window with a range of general settings and a direct access button to the user manual.

No preset				+ Param 2/4 in 2	2 out 🛛 🕔 🔍
Yves JAGET		EV0 -15	-12 -9	Display Quality	Main Setup Bypass High (60 fps) IO
		-18 mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm		Config. 2 Inpu	its   2 Outputs Reference
DRIVE				RMS Zero ref.	0 (dBFS) U
+18				UI Size	710 x 370
+12					Processing
			3.9 kHz 20 kHz	24   Report Latency	On 🔵
-6 -12				1) Enable	OSC Off
-18	AMOUNT	LISTEN			sion (Build Number)
-24	0 %		12 dB	DeEsser 2	23.01.0.50249
INPUT GAIN					ease   VSTB <sup></sup> arm64
				User	Guide
Vocal Preset 🔻	Save Recall Copy	B A 🕕		Cree	dits

## 5.1 Main Setup

### 5.1.1 UI Refresh Rate

Max refresh rate of the plug-in's UI.

# 5.2 I/O

### 5.2.1 Input / Output

I/O Config and Layout is not always available, though it is always displayed, it can only be edited in some configurations and formats.

### 5.2.2 Config

Current I/O configuration, is only available in certain VST hosts; typically hosts with limited capabilities for handling multichannel configurations.

### 5.2.3 Layout

Available I/O routings based on current I/O configuration. Layout is available for editing if more than two input channels are available. If the Layout is changed from the default value, an asterisk \* is displayed next to the Layout information in the Input section.

## 5.3 Processing

### 5.3.1 Report Latency

Enables/Disables the latency reporting to the host.

## 5.4 Automation

### 5.4.1 Multithread

Enables/Disables Multithread Automation.

## 5.5 OSC

OSC is available in EVO Touch.

## 5.5.1 Enable

Enables/Disables OSC control and mapping of the plug-in's parameters.

## 5.6 Version Information

Plug-in version and build-number information.

# 5.7 User Manual / Credits

Quick link to the User Manual. Plug-in creation credits.

# 6 Preset Management

EVO Touch, as well as all other Flux:: plug-ins, provides two preset slots referred to as slot A and slot B, which provide access to two sets of parameter settings simultaneously. In addition to just recall the settings for each of the slots individually and alternate between their settings, a morphing slider is provided offering the possibility to morph between the slots and their corresponding settings. When clicking on one of the preset slots, the built in preset manager appears.

\*--- Save Recall Copy B A 🐠 B Copy A Recall Save 🔻 ---

### 6.1 Preset Sections

EVO Touch provides two preset sections referred to as section A and section B, offering simultaneous access to two full sets of parameter settings. Clicking the A section (bottom left) or the B section (bottom right), or clicking the arrow in the Current Selected Preset display, opens a new window accessing the built-in preset manager.

## 6.2 Save

Save replaces the selected preset by a new one under the same name featuring the current settings. If you want to keep an existing preset without your new modifications, just select an empty place into the preset list, enter a new name for this modified preset featuring the current settings and press Save. Recall

Once a preset is selected from the preset list it must be explicitly loaded into section A or the section B by using the recall button. A preset is effective only after it has been recalled.

## 6.3 Copy A / Copy B

The current parameters of a section are copied to the other one. The section A or B is re-initialized with the current values and the morphing slider is parked at 100% of the corresponding section.

## 6.4 Morphing Slider

Morphs the parameter values of both parameter sections, it has no unity or specific value display; it provides morphing of the current values from both of the parameter sections (A & B). A double-click on one side of the slider area toggles between the two parameter sections. The actual result of the morphed parameter settings can be saved as a new preset.

# 7 Preset Manager

The preset manager contains two preset banks, the Factory bank contains factory presets, this bank is not available for saving of presets but any of the presets can be loaded into a preset slot and then saved into, the User bank, where all user presets are saved.

XX			EVO.TOUCH	\$ +	* 🕶 C	Bypass	<ul> <li>√</li> <li>√</li> </ul>
	PRESET MANAGER			FACTORY USER			
	Save Save As	Set default			Export	Import	
	Filter:						
	Name	Author	Keyword	Descrip	tion		
	Default (Default)	Flux		Descrip			
	ACOUSTIC GTR PICKING	Yves Jaget	GUITAR				
	ACOUSTIC GTR SMOOTH	Yves Jaget	GUITAR				
	ACOUSTIC GTR STRUM	Yves Jaget	GUITAR				
	BANJO PICKING	Yves Jaget	STRINGED INSTRI				

In the preset manager, any preset can be loaded into a preset slot by double clicking on the name of the desired preset in the actual preset list, the preset will then be loaded into the preset slot corresponding to the position of the morphing slider.

- Additional controls in the preset manager
- Recall A loads the selected preset into the corresponding slot.
- Recall B loads the selected preset into the corresponding slot.
- Update, saves the current settings into the selected preset. (Available in User Bank only)
- New, saves the current settings into a new preset. (Available in User Bank only)

- Duplicate creates a copy of the selected preset and saves it to the list.
- Edit allows for changes to the preset meta properties. (Available in User Bank only)
- Delete, removes the selected preset. (Available in User Bank only)
- Export, creates a file reflecting the content of the current preset bank.
- Import, allows for import of a preset bank file by adding the imported banks content to the content in the current preset bank.

When saving or editing a preset, an option to protect the preset is presented. The preset protection, if engaged, only allows the original preset author to uncheck and edit the preset. This means that you can protect your presets in a multi-user configuration. Protected presets can only be modified using the session used for their creation. If used in another user session they can only be imported or deleted.

	VST3: Evo Touch (FLUX SE) (32->16ch) - Track 1	- 4
o preset		
YVES JAGET	EVO.TOUCH (Bypass)	Xî,
	New Preset	
DRIVE	Name School FLUX	X::
	VocalPreset	
	Description	
	U47	
	Keyword	
	VOCAL	
	AMOU Ok Cancel DE 22	
	0 % Jr 2 OUTPUT	

o pre:	set				\$ +	Param 2/4 in	2 out 🛛 🕔 🔍
XX	GET		E	VOTOUCI	1	* 💿 C 🛛 (	Bypass 🗱
	PRESET MAN	NAGER					DRY USER
	Save	Save As	Set default	Edit	Delete	Export	Import
	Filter:						
	Name		Author	Keyword	Descri	ntion:	
	VocalPreset		jeanlouppecq	uais VOCAL	U47	ptron.	
						II	
ocali	Preset 🔻 Sa	ive Recall Cop	ру В 🗛 🕕		В Сору	A Recall Save	e 🔻 Default

# 8 Specifications

## 8.1 Availability

EVO Touch is available in:

AU / VST / VST3 / AAX Native/ AAX AudioSuite / Waves WPAPI

\* AAX Native & AAX AudioSuite in Pro Tools 11 and later

## 8.2 Processing

EVO Touch provides :

- Up to 16 channels Input/Output in VST/VST3/AU/AAX.
- Up to 8 channels in WPAPI for Waves Soundgrid.
- 64-bits internal floating point processing.
- Sampling rate up to 384 kHz.

### 8.3 Hardware Requirements

A graphic card fully supporting OpenGL 2.0 is required.

- macOS : OpenGL 2.0 required Mac Pro 1.1 & Mac Pro 2.1 are not supported.
- Windows : If your computer has an ATi or NVidia graphics card, please assure the latest graphic drivers from the ATi or NVidia website are installed.

### 8.4 Software License Requirements

In order to use the software an iLok.com user account is required (the iLok USB Smart Key is not required).

# 8.5 Compatibility

All major native formats are supported

### 8.5.1 Windows -10, in 64 bits only.

- VST (2.4)
- VST3 (3.1)
- AAX Native\*
- AAX AudioSuite\*
- Waves WPAPI

## 8.5.2 macOS (Intel and ARM)

All versions from Sierra (10.12) to latest. (Compatible with previous versions but not supported)

- VST (2.4)
- VST3 (3.1)
- AU
- AAX Native\*
- AAX AudioSuite\*
- Waves WPAPI

\* AAX Native & AAX AudioSuite in Pro Tools 11 and later

# 9 Credits

## 9.1 Software development

### 9.1.1 Project Manager and Designer:

Gaël Martinet

### 9.1.2 Application Development:

Gaël Martinet, Alexis Gentil, Bastien Prevosto, Anthony Belard, Maxence Grandidier, Siegfried Hand and Antoine Lorence.

### 9.1.3 FLUX:: DSP Design and Development:

Gaël Martinet, Maxence Grandidier and Lorcan Mc Donagh

### 9.1.4 Graphic design:

Nicolas Philippot

### 9.1.5 FLUX:: Framework development:

Gaël Martinet, Florie-Anne Lafaye, Alexis Gentil, Lorcan Mc Donagh, Bastien Prevosto, Anthony Belard, Siegfried Hand and Antoine Lorence

Additional contributions: Vincent Carlier, Jean-Loup Pecquais, Nicolas Erard, Jean Cruypenynck, Pablo Arias, Samuel Tracol

### 9.1.6 FLUX:: Framework graphic engine:

Emmanuel Julien (GS lib) and Gaël Martinet

### 9.1.7 And

thanks to all fantastic testers...

### 9.1.8 FLUX:: Special Thanks to:

Alain, Yves, Bruno and Claude for helping to shape our minds over the years.

## 9.2 FLUX::

www.flux.audio Copyright 2024, Harman Professional, Inc. ALL RIGHTS RESERVED.

## 9.3 Additional libs

- GS lib Emmanuel Julien, Gael Martinet (Copyright 2013 Emmanuel Julien)
- ThorVG, Copyright (c) 2020 2023 notice for the ThorVG Project (see AUTHORS)
- r8brain free Copyright (c) 2013-2023 Aleksey Vaneev
- LibJpeg Copyright (c) 1991-2016, Thomas G. Lane, Guido Vollbeding
- libpng :
  - Copyright (c) 1995-2023 The PNG Reference Library Authors.
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- bzip2 Copyright (c) 1996-2010 Julian Seward jseward@bzip.org
- Boost BSL-1.0
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- pfft:
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  - Copyright (c) 2020 Dario Mambro ( dario.mambro@gmail.com )
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- assimp Copyright (c) 2006-2021, assimp team
- enet Copyright (c) 2002-2020 Lee Salzman
- fmt Copyright (c) 2012 present, Victor Zverovich and {fmt} contributors
- functions (Erik Rigtorp) Copyright (c) 2015 Erik Rigtorp erik@rigtorp.se
- inplace\_function BSL-1.0
- gtest Copyright 2008, Google Inc.
- jsoncpp Copyright (c) 2007-2010 Baptiste Lepilleur and The JsonCpp Authors
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- openddl Copyright (c) 1999-2022 Eric Lengyel
- openvr Copyright (c) 2015, Valve Corporation
- poly2tri Copyright (c) 2009-2018, Poly2Tri Contributors
- pugixml Copyright (c) 2006-2022 Arseny Kapoulkine
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- shared\_recursive\_mutex Copyright (c) 2019 konanM
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- sqlite\_orm Copyright (c) 2012-2023 Eugene Zakharov and others
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https://github.com/avaneev/r8brain-free-src/blob/master/LICENSE

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## 9.4.5 LibJpeg - Custom (BSD-like)

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https://github.com/freetype/freetype/blob/master/LICENSE.TXT Copyright (C) 2006-2023 by David Turner, Robert Wilhelm, and Werner Lemberg

### 9.4.8 Zlib - zlib

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### 9.4.9 bzip2 - Modified zlib

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### 9.4.13 pfft

https://github.com/marton78/pffft/blob/master/LICENSE.txt

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#### 9.4.15 rtaudio

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#### 9.4.16 rtmidi

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## **A** Release Notes

### A.1 Build 23.07.50310 - All plugins

#### A.1.1 New features

• Support Pro Tools new track formats

#### A.1.2 Bugs fixes

- All plugins Nuendo VST3 crash when stereo plugins are instantiated on multichannel tracks (StereoTools, ...)
- All plugins Pace protected plugins fail to scan on Da Vinci Resolve mac
- All plugins Popups wrong metrics when changing screen
- All plugins Presets not imported
- All plugins VST3 Nuendo WIN (UHD360) Wrong window size init
- All plugins VST3 WIN (UHD630) REAPER GUI refresh issue when in single window mode
- All plugins GUI issue with AMD graphics on windows flickering issue
- All plugins AU Plugins parameters are reset when bouncing in Reaper
- All plugins VST2 no multichannel with the plugins 23.X in Reaper
- All plugins VST Resizing the GUI does not update the floating window size in Nuendo on Windows with UHD630 graphics
- Bittersweet VST3 crashes on Pyramix on instantiation
- StereoTool / EVO Channel VST3 No goniometer / analyzer in Wavelab
- Elixir Not available as 32 channels in Reaper
- EVO series AAX Dark Mode wrong GUI init
- EVO series remove unused and duplicated presets
- EVO Channel VST3 spectrum smoothing slider crashes Studio one
- EVO Channel / EVO Eq VST3 Analyzer not working in Ableton Live
- EVO Channel / EVO Eq scale eq control always reload on auto mode
- EVO Eq weird release on meter
- EVO In GUI refresh issue when toggling night/day mode
- EVO Touch Zero Crossing Threshold label missing in the geek panel

- EVO Touch frequency band selector does not always recall the good settings on session reload
- EVO Touch/ EVO Channel Frequency range slider is hard to handle
- Pure Serie VST3 Attack value max 80ms
- Pure Comp Crash when loading "Bass guitar" preset
- Pure Limiter VST3 advanced mode does not turn on advanced settings
- StereoTool VST3 vector scope not working in Ableton Live on Windows
- StereoTool Not working in Final Cut Pro
- TRAX Crash using oversampling with sessions set at 2FS or higher
- TRAX Tr not usable in Protools anymore (build 50123)

#### A.1.3 Known issues

- All plugins VST GUI issue in Izotope Ozone and RX
- All plugins AAX Preset manager Default preset is not applied to parameters at plugin instantiation
- Elixir Latency not properly compensated after changing stage parameters value in VST and AudioUnit
- TRAX tr Learn function returning wrong values
- VerbV3 HOA 3rd order not working properly

## A.2 Build 23.1.0.50251 - All plugins

#### A.2.1 New features

- New plugins Evo Compressor, Evo Touch and Evo EQ.
- VST3 support
- ARM support for AAX, AU and VST3
- Plugins are now resizable
- Elixir now supports 32 channels
- Alchemist, BitterSweet, Epure, Pure Compressor, Pure DCompressor, Pure Expander, Pure DExpander, PureLimiter, Solera, Syrah now support 16 channels

#### A.2.2 Bugs fixes

- All plugins Preset Manager Update user preset do not work
- All plugins Preset manager Crash or freeze when saving a preset
- All plugins UI may be black on Intel UHD 630 graphical cards

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- All plugins AU/VST3 Preset manager Default preset is not applied to parameters at plugin instantiation
- All plugins AAX Crash with OSC when changing fx slot in Pro Tools
- All plugins AU Logic Pro Automation of boolean/integer parameters broken
- All plugins AU Plugins crash in Da Vinci Resolve
- All plugins DaVinci Resolve VST UI is truncated
- All plugins Streamlabs Plugins do not work
- All plugins Licensing issue in DaVinci Resolve and GarageBand
- Alchemist The range parameter works only for the 1st band
- BitterSweet Not possible to tweak the Output gain after unlinking it
- BitterSweet Output gain not reloaded properly when the link is disabled
- BSPro some modes are not accessible due to GUI issue
- Epure macOS Bad graphic scale initialization at 2&4FS
- Evo Channel Meter reference is not saved
- Syrah Crash when selecting preset "Static fast compression"
- TRAX Tr When the link is activated, the Formant slider does not have the expected audio effect
- TRAX Tr ProTools Issue in AudioStudio when the modulation is enabled
- VerbSession/VerbSession Studio Session and BSPro StudioSession Pyramix VST crash when instantiated
- Verb/Verb Studio Session Crash when reloading session having 2 instances

#### A.2.3 Known issues

- All plugins VST GUI issue in Izotope Ozone and RX
- All plugins AAX Preset manager Default preset is not applied to parameters at plugin instantiation
- Elixir Latency not properly compensated after changing stage parameters value in VST and AudioUnit
- TRAX tr Learn function returning wrong values
- VerbV3 HOA 3rd order not working properly

# A.3 Build 21.12.0.50123 - All plugins except TRAX and StudioSession

#### Bug fixes

- All plugins AudioUnit GUI issue with Hdpi displays on macOS Monterey
- All plugins VST Plugin scan freeze in Wavelab 11 on Mac M1 machines
- All plugins VST Crash in Adobe Audition on macOS
- All plugins VST macOS Fix crashes with Ableton live
- Elixir Automation is not read for toggle parameters.
- Elixir Crash when clicking on the settings button on Session version
- Elixir Several fixes on the UI
- Elixir Windows AAX Refresh issue with two instances in ProTools
- HEar Bypass is working in AAX
- HEar AAX Crash when doing offline bounce on macOS
- HEar AAX Crash when editing the matrix on macOS
- HEar AAX Stereo Change on Matrix are not applied until we change the preset
- HEar AudioUnit Ableton crashes when inserting a second instance

## A.4 Build 21.11.0.50107 (HEar, IRCAM Verb)

#### NOTE: CURRENTLY NOT COMPLIANT WITH ABLETON LIVE MACOS

#### Improvement

• HEar - 5.1.4 & 5.0.4 now available

#### Bug fixes

- HEar Fix meters refresh issue
- HEar No verb on some presets
- HEar Protools crashes when doing offline bounce on macOS

## A.5 FLUX:: Immersive - Plugins (including IRCAM Tools) 21.09

This release includes updates for all FLUX::Immersive plugin processing products with the exception of EVO Channel, Epure, IRCAM Trax, Studio Session.

#### NOTE: CURRENTLY NOT COMPLIANT WITH ABLETON LIVE MACOS

#### Major optimizations

- Apple computers Big Sur (new M1 chips) AU validation
- Important updates to the Ircam Verb + Session
- Overall better handling of multichannel track setups such for Atmos. (Ircam Hear, Verb and more)
- Automatic detection of track format / channel order for DAWs when possible.

#### A.5.1 Build 21.9.0.50083

#### Bug fixes

- Apple computers Big Sur (new M1 chips) AU validation failing
- Empty GUI when close/reopen plugin Windows 10 UHD630 graphics
- AudioUnit in Reaper do not process audio when offline bounce
- Default preset not loaded correctly on instantiation of Verb + Verb Session
- Evo.Channel on Retina Input and Output Sliders badly scaled
- Incompatible AudioUnit issue in Apple Final Cut Pro
- Plugins: Recall Preset Flags (e.g. "All but setup") recall always everything
- Preset Manager UI issue with small plugins when a preset has been created
- Ircam Verb Session reload in VST with audio interruption
- VST Plugins Session not correctly reloaded if it integrate an IO configuration change
- Verb session Dry/wet not applied in offline render
- Verb v3 Atmos crash on AAX
- Verb: AU validation failed on Apple M1
- Verb: LFE not disabled by default on ProTools
- Verb: Recall Preset may be not correct with double click inside the preset manager
- Verb: disabled channel is not re-injected according to dry/wet parameter (100 % wet means muted)
- Verb: init issue with Nuendo
- AAX Some plugins Crash on Mac / No GUI on Windows
- Overall reliability / stability fixes.
- Plugin size not correct
- Potential plugins crash when opening UI

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## A.6 FLUX:: Immersive - Plugins (including IRCAM Tools) 20.12

This major release includes updates for all **FLUX::Immersive** products with the exception of IRCAM Spat V3 legacy product. Please refer to Spat V3 - Spat Revolution crossgrade options.

#### Major optimizations

- HiDPI / Retina support + display enhancements and fixes
- Page Table unification for Avid Control, S1, S3, S4, S6 and S6L.
- OSC Control for plugins.
- IRCAM Verb support for Dolby Atmos, Multichannel support up to 16 channels
- **IRCAM Hear** Multichannel stability improvement, Now up to 10 channels. (Dolby Atmos 7.1.2)
- IRCAM Tools Audio I/O Matrix and Multichannel enhancement
- Most plugins support of 8 channel.
- 16 channel support for Bittersweet Pro, Evo In and Evo Channel

#### A.6.1 Build 20.12.0.49880

#### Bug fixes

Core:

- BSPro Latency report issue (AAX)
- IRCAM TRAX Tr Latency report issue
- IRCAM Verb Wrong initialization value for Reverb density
- IRCAM Verb -Dry signal still goes out in disabled channels when wet is 100%
- All Pure Dynamics PI + Alchemist Wrong Thresholds initialization values
- AAX "monolithic" are broken like Hear, TRAX etc...
- Almost all AAX plugins don't reload parameters from 47856 version session.
- Pure Limiter Diff feature bypassed the input gain.
- Pure Limiter Inverted sidechain filters.
- Any plugin except Evo Channel Research Presets resets when click on a preset.
- Evo channel Wrong values when reloading touch section.

#### UI:

• Current preset name disappear on re-opening GUI or session

## A.7 Known Issues

- Wavelab "Sample rate not supported" when a plugin is inserted on a clip, track or output section.
- TRAX Tr Learn frequencies display wrong values (AAX only).
- Hear Internal config labels change when modify LFE input config from routing matrix.
- When using OSC on a plugin in Pro Tools, a chrash will occur if you change/move FX insert slots