

IRCAM Verb Session

FLUX:: Immersive

2026-02-11

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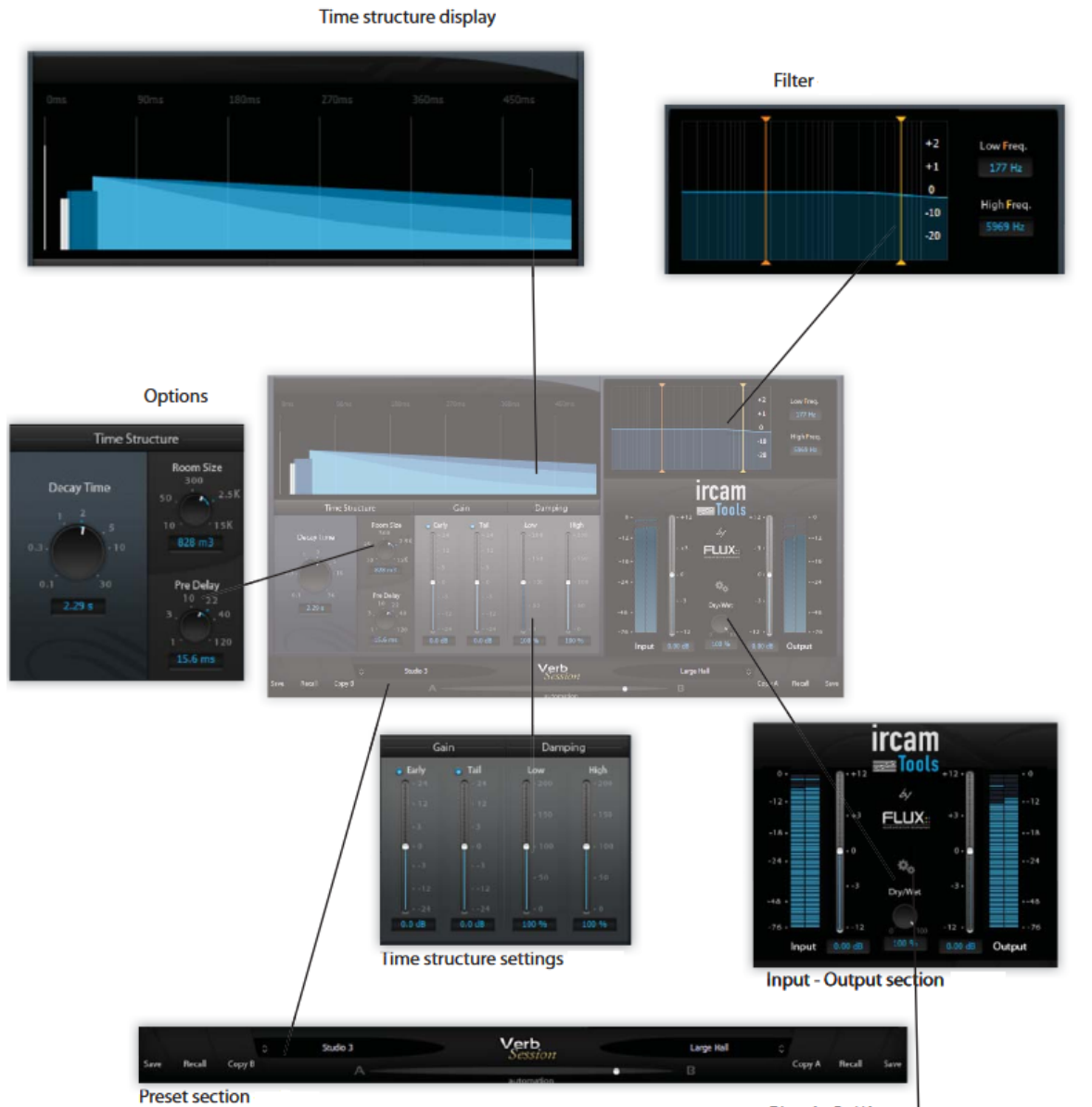
by

FLUX
sound and picture development

VERB Session

Algorithmic Reverberation Processor





Plug-in Settings
 Pressing the cogwheels in the main Input/Output section opens a settings window providing information about the plug-in version/build, a direct access button to the user manual, as well as setup for latency report and OSC (Open Sound Control). OSC is available in Verb Session v3 only, and is not supported in Verb v3 Studio Session.

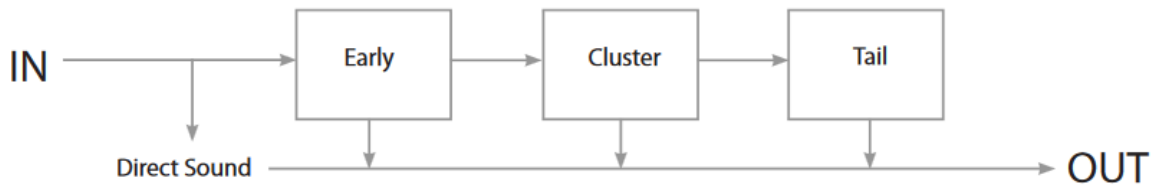
2 Quick Start

Verb is an algorithmic reverberation processor based on a recursive modular engine. As a general guideline, these adjustments will get you started quickly:

- select a preset corresponding to the general character and color you're looking for
- adjust reverberation time with the main decay time control
- change the size parameter, which is a most prominent characteristic of the room
- tweak the room filters to change tail color to one that suits your needs and taste

Controls such as Damping and Gain are relative to the current preset, they are intended to give a 'more' and 'less' access to that parameter.

2.1 Block diagram



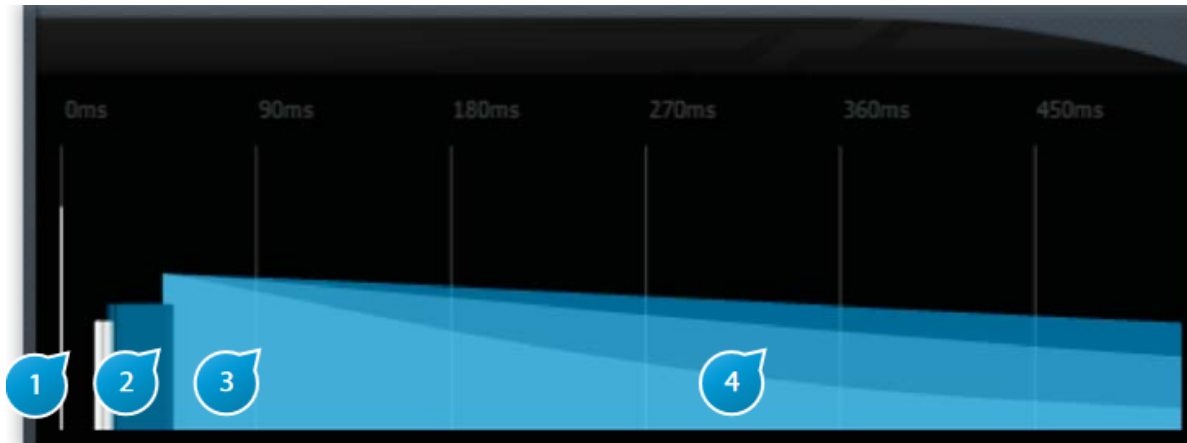
The block diagram above shows the global structure of the reverberation engine, which governs the time-structure of the reverberation tail.

- The direct (dry) signal is fed straight to the output. It corresponds to the direct sound, i.e. the direct path from the source to the listener's ears. This is always the first part of the sound that is heard.
- The input is fed in parallel to the early reflections generator, abbreviated EARLY. Early reflections play a crucial role in our spatial perception of sound, as they allow us to build a mental representation of the surrounding environment (locations and materials of the walls, floor and ceiling). These reflections vary with source position and are panned accordingly.

- The output of the EARLY stage is fed to a second generator, named CLUSTER, which is responsible for later early reflections. These differ from early reflections in that they come later and with increased density. This models a transition stage between early and LATE/TAIL generators. In a typical standard configuration, they are a component of the whole acoustic space with no particular localization in order to blend in seamlessly. You can however force them to be directive by changing the diffuseness parameter.
- The LATE/TAIL stage finally generates the reverberation tail. Acoustical analysis of this component has shown it to consist of dense material, homogeneous with the whole of the reverberated space. As with CLUSTER, the diffuseness parameter allows you to override this natural behavior.

A good understanding of this time structure and how it affects perception of sound and space is key to be able to exploit any reverberation system to its full potential and achieve the best sonic results.

3 Time Structure Display



3.1 (1) Direct signal

The grey bar at the start of the reverberation pictogram represents the direct sound send at the input of the plug-in. In the time structure of the reverberation, it is the first element that is heard.

3.2 (2) Early

Overall representation of the early reflections distribution.

Vertical bars roughly indicate at what time locations (horizontally) and levels (bar height) these early reflections occur.

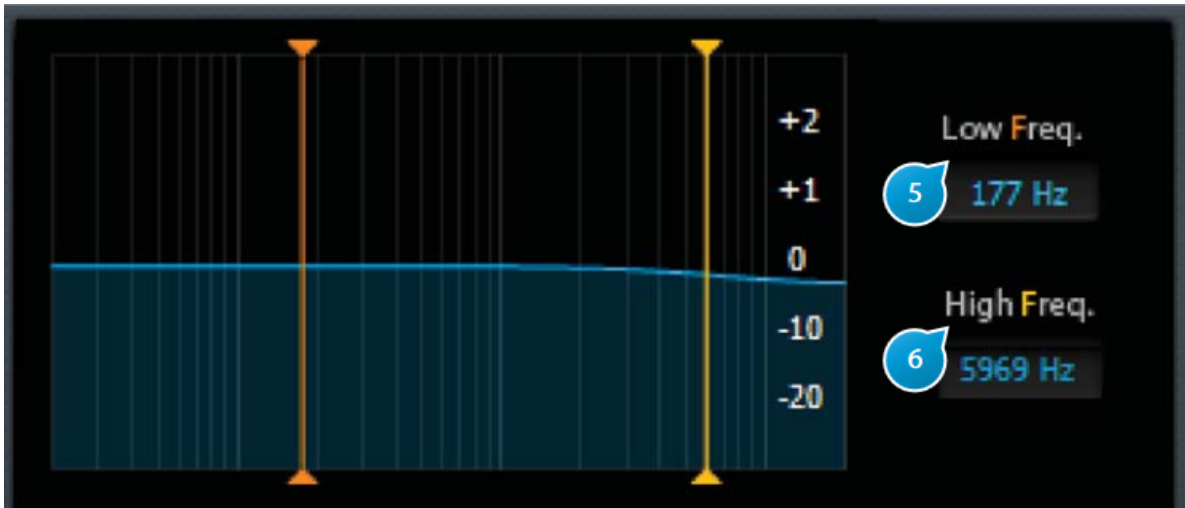
3.3 (3) Cluster

See 12.

3.4 (4) Reverb

Shows a graphical representation of the reverberation tail part of the engine. The decay curves of the high, mid and low bands, which are controlled by the decay time settings, are superimposed in different colors and can rapidly be assessed and checked.

4 Filter



This section sets the characteristics of the filter applied to the signal fed to the reverberation engine, affecting the overall frequency response, if required.

4.1 (5) Low Freq

Low-pass filter frequency cutoff of the corresponding filter section.

Value can be quickly adjusted using the mouse by clicking and holding the value box or the yellow vertical bar on the graphical frequency-response display, or exactly by clicking the value box and entering a value with the keyboard.

4.2 (6) High Freq

High-pass filter frequency cutoff of the corresponding filter section.

5 Options



5.1 (7) Decay time

This is the duration of the reverberation ‘tail’ in seconds, in other words how long it takes for the reverberated sound to vanish away. In more technical terms, this is sometimes referred to as the RT factor, which is the time at which the response of the reverberation to an input signal goes below -60dB of attenuation.

Please bear in mind that the master decay and high/mid/low controls are interactive, which means that the same audible result can be attained with different settings. This is intentional,

as this allows you to get to the result faster and in a manner suited to your personal habits. Generally speaking, it might be more convenient to adjust the master decay time using the resulting sound as a guideline, then fine tune using high and/or low decay controls and leave the mid decay at the default setting. On the other hand, if you specifically to concentrate on the mids, for example to create a ‘hollow room’ sound, it’s easier to focus on the mid decay control, leaving hi and mid decay untouched.

5.2 (8) Room size

This parameter is a meta parameter that allow you to quickly perform an homogeneous set of parameters for the early reflexions part (early + cluster). Theses part are particularly important to achieve the “room” feeling of the desired space. It adjust the time structure of the whole reverberation (early-min, early-max, cluster-min, cluster-max, reverb-start). This is a key control for quick settings, before a detailed fi ne tune with each parameters.

5.3 (9) PreDelay

PreDelay controls the time at which the reverberation portion of the effect starts to be heard, with respect to the DIRECT signal. Increasing this helps to distinguish between direct and effected sound and preserve intelligibility, especially with large decay times and room sizes which would otherwise drench the audio material in reverberation.

6 Time Structure Settings



6.1 (10) Early Gain

Controls the level of EARLY and CLUSTER contributed to the overall effect.

6.2 (11) Tail Gain

Controls the level of LATE/TAIL contributed to the overall effect.

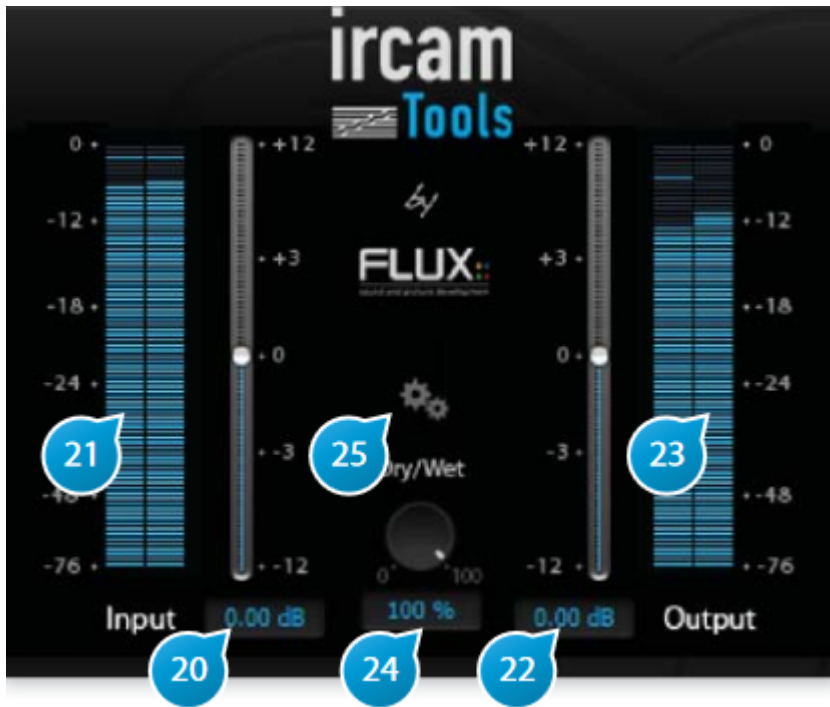
6.3 (12) Low Damping

Adjusts low-frequency damping, for increasing or decreasing the decay of bass content with respect to the rest of the spectrum.

6.4 (13) High Damping

Adjusts high frequency content damping.

7 Input Output Section



7.1 (20) Input Gain

Adjusts the level of the signal fed to the plug-in, in dB increments.

7.2 (21) Input level meter

Shows the current level of the input signal after applying input gain, in dB FS (deciBel Full Scale).

7.3 (22) Output Gain

Used to trim the output signal and possibly avoid any overloading of the signal in the rest of the signal-chain.

7.4 (23) Output level meter

Shows the current level of the input signal after applying output gain, in dB FS(decibel Full Scale).

7.5 (24) Dry/Wet

When used as insert effect, one can dial the right amount of “wet”, reverberated signal with respect to the “dry”, untreated input signal.

The default 100-percent wet setting is mostly intended for the typical and preferred use in a send-effect configuration.

7.6 (25) Setup

Advanced settings to override default behavior, typically when using hosts that do not conform to the standards.

7.6.1 I/O

Override automatic track I/O specifications. VerbSession automatically adjusts its I/O configuration based on what the hosts reports to the plugin. Some hosts such as Logic do not report this correctly or do not support asymmetric I/O configurations In this case you have to do this manually and select amongst a number of choices of symmetric (N-to- N) and asymmetric I/O (N to stereo).

7.6.2 Options

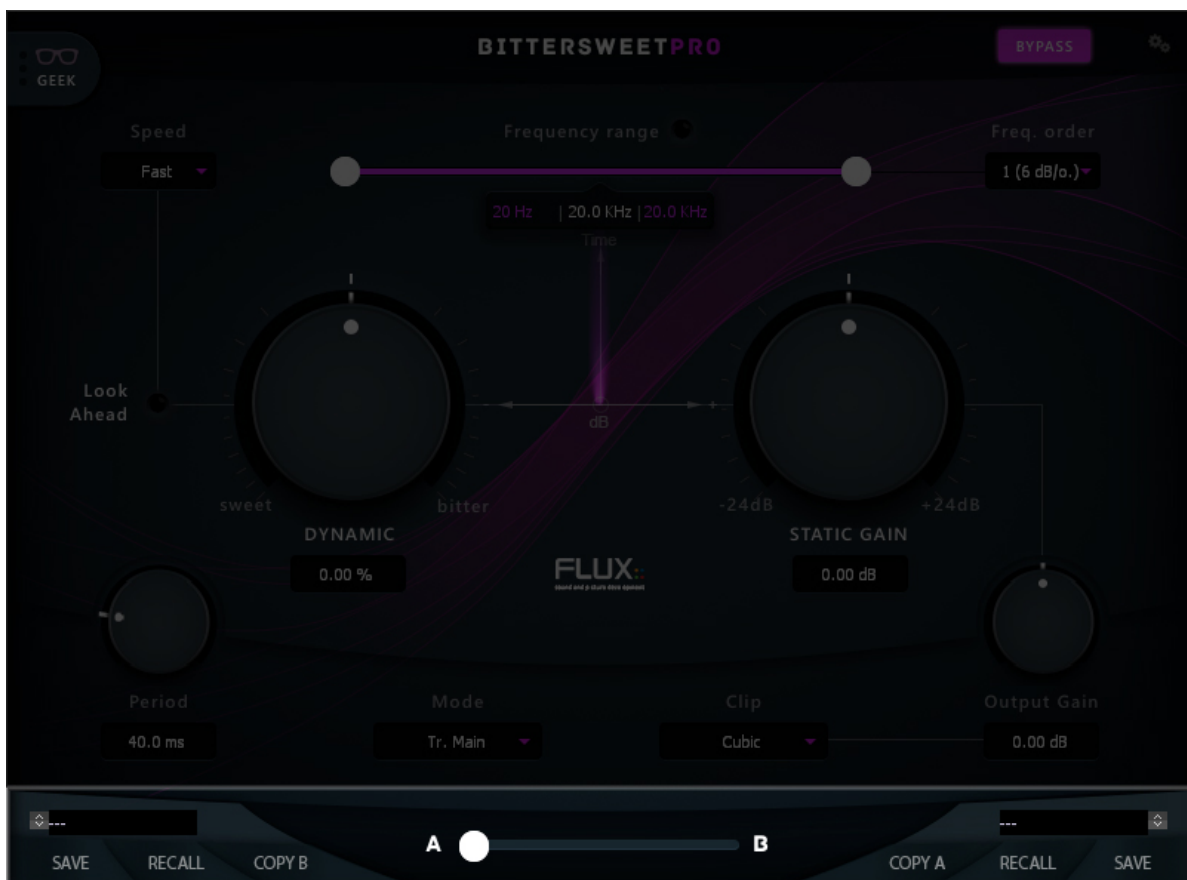
These are best left at their default in most cases, but can be changed if required:

- Disable processing during bypass: stops processing completely during bypass. Allows to conserve CPU when using many instances and a lot of bypass on/off automation, such as fi lm or sound effects mixing. Default is off (enabled).

- Use Multi-Thread Automation: dedicate a separate thread for automation. Useful when heavy automation is present in the project to get rid of possible audio dropouts. Default is off (processing and automation share the same thread).
- Try to avoid latency as possible: minimize latency by employing minimal buffering, possibly at the expense of a little CPU overhead. Default is on.
- Report latency: report plugin latency, if any, to the host. Some hosts have difficulty coping with large latency values, in this case you can force the plugin to report zero, but you'll have to manually compensate for this for tracks to remain synced. Default is on (report true latency).

8 Preset Management

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.



8.1 Preset Sections

Flux:: plug-ins 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.

8.2 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.

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.

8.3 Copy A / Copy B

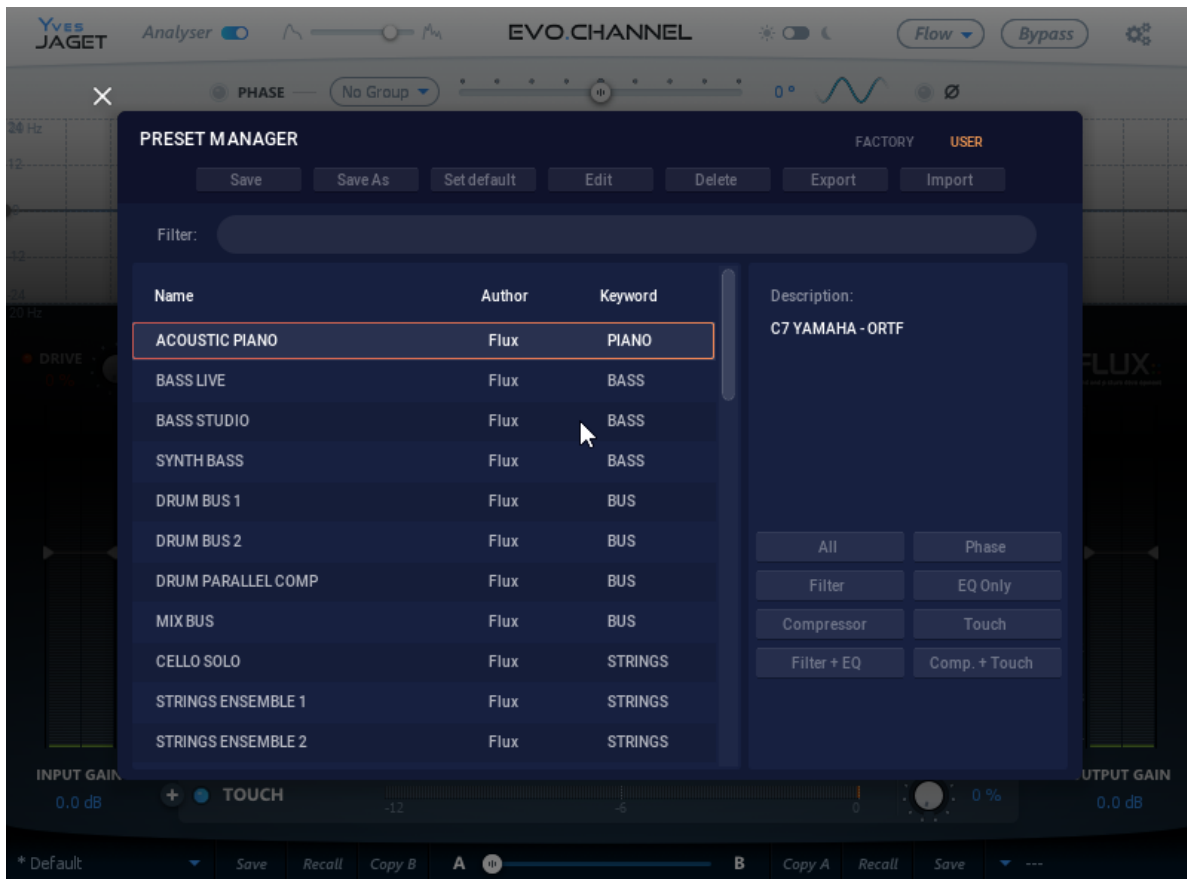
The current parameters of a section are copied to the other one. The section A or B is re-initialized with the current values and the morphing slider is parked at 100% of the corresponding section.

8.4 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.

9 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.

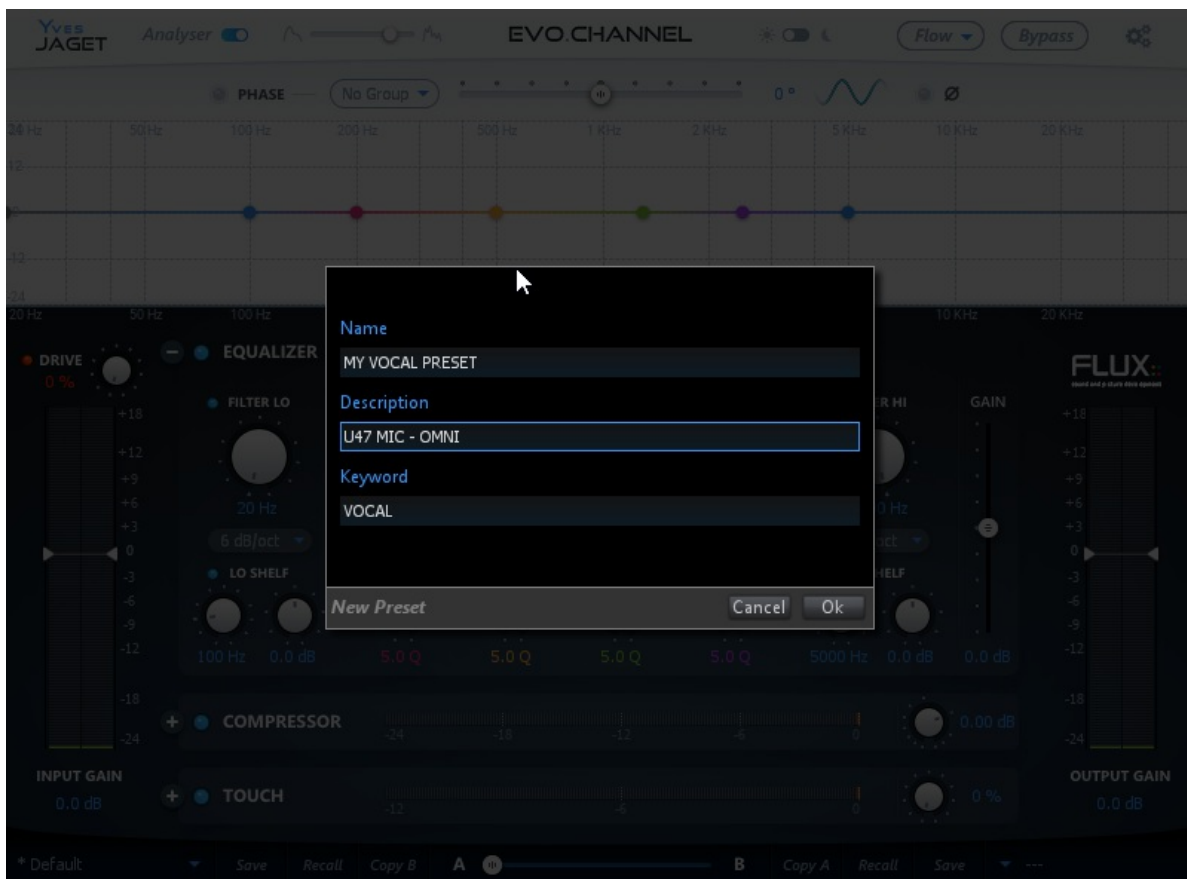


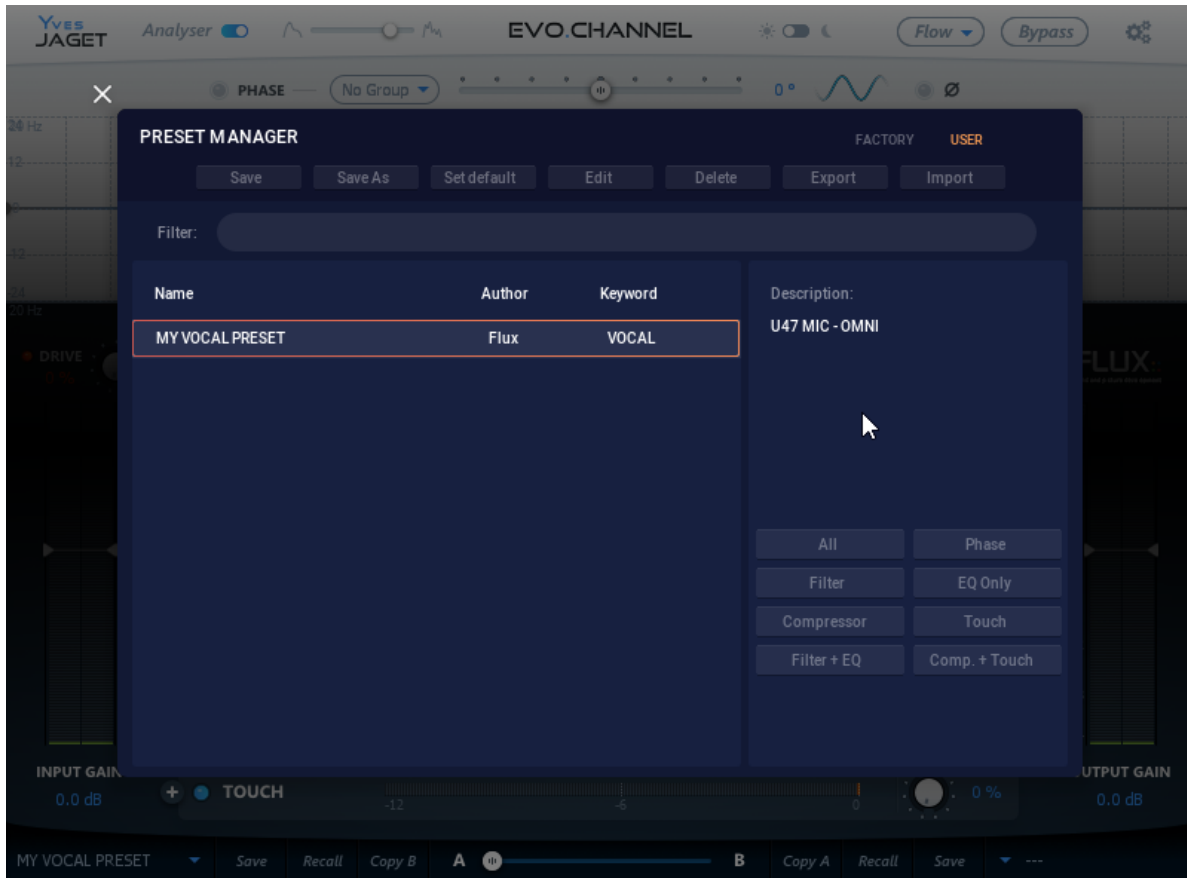
In the preset manager, any preset can be loaded into a preset slot by double clicking on the name of the desired preset in the actual preset list, the preset will then be loaded into the preset slot corresponding to the position of the morphing slider.

- 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.





10 Credits

Software development

Project Manager and Designer:

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Application Development:

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Graphic design:

Nicolas Philippot

FLUX:: Framework development:

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

FLUX:: Framework graphic engine:

Emmanuel Julien (GS lib) and Gaël Martinet

And

thanks to all fantastic testers...

FLUX:: Special Thanks to:

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

FLUX::

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11 Specifications

Refer to this [website](#) for complete specifications.

A Release Notes

A.1 Build 24.07.0.50393 - All plugins

A.1.1 New Features

- VST3 automation state on UI

A.1.2 Improvements

- EVO EQ - Dark mode update

A.1.3 Bugs

- All plugins - VST3 - GUI freeze when reloading a session in Studio One
- All plugins - VST3 - Wrong parameters frequencies when reloading session at 44.1KHz
- All plugins - crash when loading a StudioOne session
- All plugins AAX - Crash protocols when using the protocols plugin preset manager on Windows
- EVO Channel/Touch and BS Pro - Presets have to be loaded twice to apply the filter values from the Touch section properly
- Elixir - Latency not properly compensated after changing stage parameters value in VST and AudioUnit
- Elixir - VST - May crash or bypass the audio when reloading a previous session in Nuendo
- Evo Channel - GUI issues on Geek panel
- Evo Channel/Evo EQ - Bad init on the lowpass filter cut off frequency
- HEar - Failed to load HRTF message in Logic until audio playback
- Verb and VerbSession - VST3 - Freeze during Steinberg TestHost on Windows

A.1.4 Known Issues

Important

- All plugins - AU - Crash in Logic 10.5 on MacOS Mojave

- All plugins - AU - Sidechain not available
- All plugins - VST versions - GUI issue in Izotope Ozone and Davinci Resolve
- Elixir - VST3 - Elixir is not available as 32 channels (24 max) in Reaper
- HEar - AU - Crashes Ableton
- HEar - Do not work properly with Ambisonic streams
- Trax - Ran out of CPU error and playback issue in Protools
- Verb - AAX - Moving any temporal parameter mute audio and generate noisy artefacts
- Verb - HOA 3rd order not working properly

Host Specific

- All plugins - VST2 - GUI cropped in TwistedWave
- All plugins - VST3 - Do not process the audio in TwistedWave
- EVO EQ - AAX-DSP - Not listed in DSP plugins list
- EVO Series - AAX DSP - No metering
- Evo Channel/Evo EQ - AudioUnit - LPF cut off frequency badly initialized when samplerate is 2FS or more
- StereoTool - AAX DSP - No metering

A.2 Build 24.06.0.50386 - All plugins

A.2.1 Improvements

- All plugins - Preset manager filter options updated
- All plugins - Preset recall button improved
- All plugins - Preset save button improved

A.2.2 Bugs

- AAX - Preset manager - Default preset is not applied to parameters at plugin instantiation
- All plugins - AAX bad GUI recall with user scale x2 and display scale x2
- All plugins - AU - auval real time safety checks
- All plugins - All parameters are reset when reloading a session when using presets
- All plugins - GUI issue on Windows
- All plugins - GUI issue with Retina in FLStudio
- All plugins - Mouse wheel not working anymore on knobs
- All plugins - Parameters are reset when deactivating/reactivating the plugin in Protools
- All plugins - Parameters are reset when loading a session if a preset is used
- All plugins - Preset manager font issues
- All plugins - VST3 - Keys not working in Pyramix

- All plugins - VST3 - Meters not working in Adobe premiere Pro, Adobe audition, Isotope RX10 and Waves Studio Rack
- All plugins - VST3 - preset name back reset to default when loading a session
- All plugins - VST3 - Can't edit values using keyboard on Windows
- All plugins - mouse wheel + shift key increase controls value when scroll down
- All plugins - AAX - Crash protocols when using the protocols plugin preset manager on Windows
- All plugins - VST3 - crash plugin scan when OSC enabled in prefs
- EVO Channel - Dark mode display issue when closing/opening the plugin
- EVO Channel - custom preset does not load some parameters
- EVO In - Phase shift amount automation line display issue in Logic
- EVO Series - Display issues on some parameters values
- EVO Series - Missing controls text
- EVO Series - Save button from preset manager not working
- EVO Series - save/recall/copy A & B preset buttons from main window not working
- EVO Series - wrong RMS reference value initialisation
- Elixir 1-Stage - GUI broken
- EvoEq - very low noise generated when offline rendering (32bit FP)
- HEar - AudioUnit - Crashes validation in Logic
- Preset Manager - Refresh missing - Preset name still displayed as current preset after being deleted.
- Solera - VST3 on Windows - DExp tab selected as default
- StereoTool - Correlation phase meter is wrong when quality setting set at 60fps
- StudioSession Plugins - May fail to scan in logic
- StudioSession Plugins - loads without the limitations
- Trax - VST3 - Learn feature not working
- VST3 - Some plugins are blacklisted in Cubase 13 on Windows
- VST3 - Conformity report
- VST3 - Display quality (15/30/60Hz) always reverts to initialized value
- VST3 - Verb & VerbSession - Crash in VST3 test host unit test
- VST3 - presets slots values are not correctly recalled when a session is saved after using morphing
- Verb - AAX - Matrix not reloaded on atmos 9.1.4 tracks
- Verb - Does not load the saved multichannel layout
- Verb - Multichannel layout not automatically set in Logic
- Verb - When in High Density, the dry signal is output
- Verb Session - AAX - GUI issue in HiDPI on Windows

A.2.3 Known Issues

Important

- All plugins - AU - Crash in Logic 10.5 on MacOS Mojave
- All plugins - VST2 - GUI cropped in TwistedWave
- All plugins - VST3 - Do not process the audio in TwistedWave
- All plugins VST versions- GUI issue in Izotope Ozone and Davinci Resolve
- Elixir - Latency not properly compensated after changing stage parameters value in VST and AudioUnit
- Elixir - Reaper - VST3 - Elixir is not available as 32 channels (24 max)
- Evo Channel/Evo EQ - All formats -Bad init on the lowpass filter cut off frequency
- HEar - AU - Crashes Ableton
- HEar - Do not work properly with Ambisonic streams
- HEar - Failed to load HRTF message in Logic until audio playback
- Trax - Ran out of CPU error and playback issue in Protools
- Verb - AAX - Moving any temporal parameter mute audio and generate noisy artefacts
- Verb - HOA 3rd order not working properly

A.3 Build 23.07.50310 - All plugins

A.3.1 New features

- Support Pro Tools new track formats

A.3.2 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.3.3 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.4 Build 23.1.0.50251 - All plugins

A.4.1 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.4.2 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
- 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.4.3 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.5 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.6 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.7 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.7.1 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

A.8 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.8.1 Build 20.12.0.49880

Bug fixes

Core:

- BPro - 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.9 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