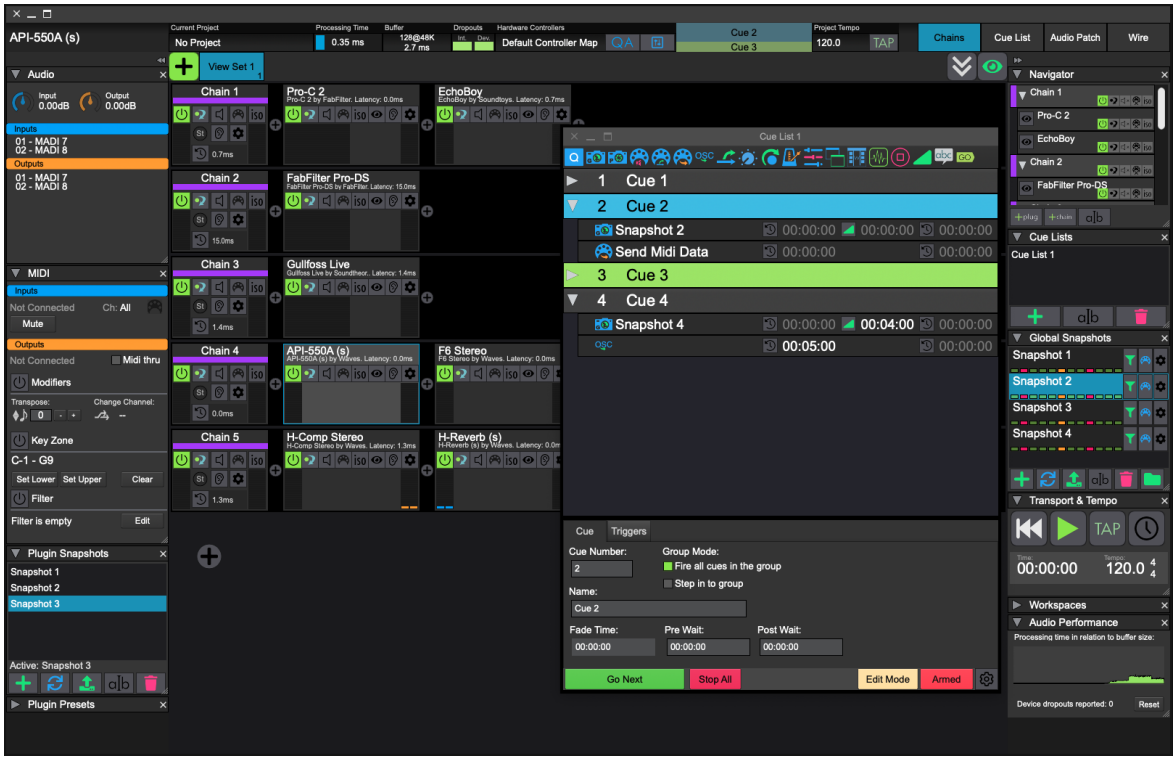
audioström sound software

LiveProfessor - User Manual

Updated October 2023

Introduction

LiveProfessor aims to take the software tools of the studio to the live stage, enabling creative audio processing and routing during performances. It was built with the live sound engineer in mind. Developed in close collaboration with users, LiveProfessor is used in concerts, theatre, and broadcast settings worldwide.



System Setup

System Requirements

Windows:

Windows 7 64bit or higher
A sound device with ASIO driver

Mac

OSX 11.5 or higher

Both Intel and Apple Silicon are supported.

The minimum hardware specifications are not defined, but having a stronger CPU will enable the use of more plugins with lower latency. When selecting a CPU, it is usually better to prioritize clock speed over the number of cores.

Optimize your system for running live audio

The computer running LiveProfessor should preferably be a dedicated computer. Background tasks and internet access can cause interruptions in the processing flow and cause clicks and pops in the audio stream.

Many websites and videos are available online that provide instructions on optimising PC and Mac systems. Since this field constantly evolves, the end user should search for the most relevant information.

Activating your LiveProfessor license

Audioström software is activated using a license file.

Once you have bought a license, an email containing a link to your license file will be sent to you.

This file is necessary to unlock LiveProfessor.

Just click on the link and download the file.
If you have installed LiveProfessor on a computer that does not have internet access, you can transfer the file using a memory stick or a similar device.

A popup window will appear whenever you start LiveProfessor but have not yet activated it.

Click the `ACTIVATE A LICENSE` button and select the file you downloaded.

Activation Codes from resellers

If you have purchased a license from a reseller, you will have received an activation code (in a form like "1234abcd").

To get your license file, please visit activate.audiostrom.com to activate the license.

You will have to enter your name and email address.

Once the activation is complete, you will receive an email with your license file.

On how many computers can I activate my license?

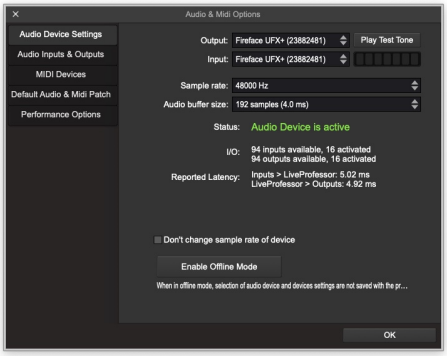
You are free to activate your license on as many systems as you need, given that you are the only user of the systems.

The license is assigned to a single user and not a particular machine. Therefore, you are free to install it on several devices as long as you are the only one using them. However, if you run a rental company or a venue with multiple stages, you must purchase one license for every rental unit or stage. Each rental unit or stage may have several machines under a single license, such as the primary and backup machines.

Audio & Midi Options

Audio Device Settings

The audio device settings control the connection between LiveProfessor and the audio hardware. This is where you select the device to use and control the device settings.



Audio device type

This option is only available on Windows and lets you choose the type of audio driver to use.
It is strongly recommended to use an ASIO driver as it provides the best stability and lowest latency. The other options (Windows Audio and DirectSound) are for special use cases and backward compatibility.

Device / Output / Input

This is where you select the actual hardware device to use for passing audio.

Sample rate

The sample rate of your system. This should be aligned with the settings in the rest of your system. Opting for higher values would reduce the latency for the same buffer size, but it may consume more processing power.

Status

The current status of the device reported by the audio driver

I/O

This shows how many inputs and outputs are available on the device and how many have been activated on the Audio Inputs & Outputs page

Reported Latency

The reported latency of the audio device which includes the audio buffer. The total round trip latency will be the input latency plus the output latency. It's worth noting that specific plugins might add extra latency on top of this, plugins that add extra latency will show the amount they add in the individual plugin's user interface.

Don't change sample rate of device

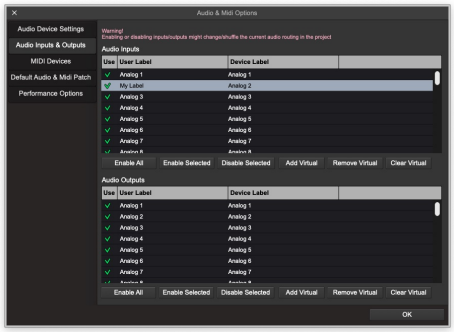
When this feature is enabled, LiveProfessor will not attempt to adjust the sample rate of the audio device. Instead, it will rely on an external device to set the sample rate. By default, this feature is disabled, allowing the application to have full control over the audio device.

Enable Offline Mode

This button will enable the offline mode manually. If a project is loaded without the correct audio device being available the project will enter Offline Mode and this button will be red. To return to normal mode click this button. More information on the Offline Mode here

Audio Inputs & Outputs

The audio inputs & outputs page lets you edit the list of available audio channels.
Sometimes it is useful to either disable a set of channels not needed or to give some channels clearer names.



Renaming Channels

Audio channels in LiveProfessor can have user labels. If no user label is provided the label provided by the audio device will be used. To rename a channel double-click on the channel in the `USER LABEL` column and type in the name.

Enabling and disabling channels

Some audio devices have sets of channels you don't use. For instance, if you only use the digital ports and none of the analog. You can hide the channels you don't need by clicking on the green check mark next to the channel name.
The audio patch inside LiveProfessor will not show the hidden channels.

> Please be aware that if you disable channels after setting up the routing of your chains and plugins, it will affect the audio patch. For example, if you have a plugin with input from channel 2 and you disable channel 1, the plugin will receive audio from channel 3 instead because it has become the new second channel in the list.

Virtual I/O

To allow for routing and programming without access to a multi-channel audio device the ability to add virtual inputs and outputs has been provided.

If a project that was saved with a multi-channel audio device is loaded, and the device is not available the project will enter Offline Mode and virtual I/O will be added to compensate for the missing hardware.

Virtual IO can also be added and removed manually using the `ADD VIRTUAL`, `REMOVE VIRTUA`l, and `CLEAR VIRTUAL` buttons.

Virtual IO will always be pushed to the end of the list, with physical IO taking priority.

Midi Devices

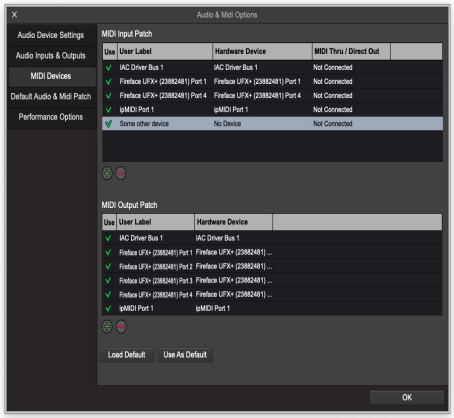
The MIDI inputs and outputs in your project are not directly linked to the physical MIDI devices. Instead, LiveProfessor has a MIDI input and output patch that allows you to assign a name to each input/output and choose which hardware device it should use.

To configure Midi Devices, go to `OPTIONS > AUDIO & MIDI OPTIONS > MIDI DEVICES`. Any Midi Devices connected at program startup will be added to the patch automatically, with the same name as the physical device.

To manually add a new device, click the `+` button and select the hardware device in the `HARDWARE DEVICE` column.

The list of devices contains the following columns:

Use
Click in this column to enable or disable this device inside LiveProfessor.



User Label
This is the name that you choose to give to a device within the project. For example, you could label a device as "Keyboard 1" even if its actual name is "USB MIDI 123".

Hardware Device
Click in this column to select the hardware device to use for this input or output.

MIDI Thru/Direct out
This applies to Inputs only. Here, you can optionally select an output device to forward all incoming MIDI to.
Any MIDI messages received on this input will be directly forwarded to the hardware device selected in the Midi Thru column

Default MIDI Patch

You can save a default MIDI patch to be used by future projects by clicking on the `USE AS DEFAULT` button. The default patch can be restored with the `LOAD DEFAULT` button

Replacing a missing Midi device

If you initially create your project using a MIDI device and later replace it with a new one, you will receive an error message from LiveProfessor when loading the program, indicating that a MIDI device is missing. This is because MIDI hardware is identified by its name.

To resolve this issue, open the MIDI Device window by navigating to `OPTIONS > AUDIO & MIDI OPTIONS > MIDI DEVICES`, and click the `HARDWARE DEVICE` column for the missing device. From there, choose the new hardware device you want to use.

Audio Performance Options

This option dialog provides you with several choices for multithreaded processing.

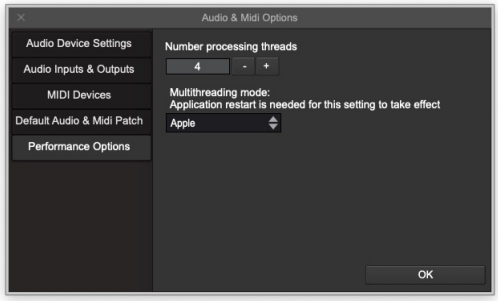
Number of processing threads

To utilize multiple CPU cores, the processing work is divided into sections known as "Threads." This option controls how many threads the work should be divided into. Higher numbers will, in theory, give better distribution of work among the CPU cores. However when latency should be low the overhead of synchronizing all the threads, among other things, often eats up this benefit.

Recommended values:

The same number as physical CPU cores. For CPUs that have "Performance" and "Efficiency" cores, only the number of high-performance cores should be used.

For example, Apple M2 has 8 cores, 4 performance, and 4 efficiencies, recommended number of threads would be 4.



Multithreading Mode

These are different strategies on how to best utilize the multicore performance. Technically, these settings have to do with how to free resources back to the computer, while still ensuring they are available for low-latency performance.

Recommended values

On PC: "Hybrid" is the default as it seems to give the best performance on most systems.

On macOS: "Apple" is the preferred setting as it utilizes the built-in features of macOS to prioritize audio processing.

Plugins

Installing Plugins - The Plugin Manager

To get LiveProfessor to do something useful, you need plugins.
The supported plugin formats are VST2 & VST3 on Windows and VST2, VST3 and AudioUnits (AU) on macOS

Assuming that you have downloaded and installed the necessary plugins per the creators' instructions, the next step is to inform LiveProfessor where they are located.

Open the Plugin Manager Window by going to the menu `OPTIONS > PLUGIN MANAGER`.

Click the `LOOK FOR NEW PLUGINS` - button to add new plugins.

In the popup menu that follows, select the desired plugin format.
Make sure all license dongles etc., are connected when scanning starts.

The Plugin Scanner will now look through the standard plugin folders on the computer for compatible plugins, do a basic test, and add them to the list. If there are many plugins installed, this process can take a while.

You may also see popup windows for license activations and other plugin notifications.

If the scanning should fail because of a misbehaving plugin, the scan will restart, and the problem plugin will be skipped.

Once the scan completes, you should see the full list of installed plugins

> **Note for Apple Silicon**
> LiveProfessor will run natively on the Apple Silicon CPU where available. If the plugin is incompatible with Apple Silicon, it will fail to load, as the plugin and the host (LiveProfessor) must run under the same CPU architecture.
> MacOS should handle this converting on the fly for AU plugins, so you should not need Rosetta for these.
> To use other non-compatible plugins and run under Rosetta, right-click (or ctrl+click) on the LiveProfessor application icon and select Get Info, then enable the Open using Rosetta option.
>
> The entire application and all plugins will then run under Rosetta.

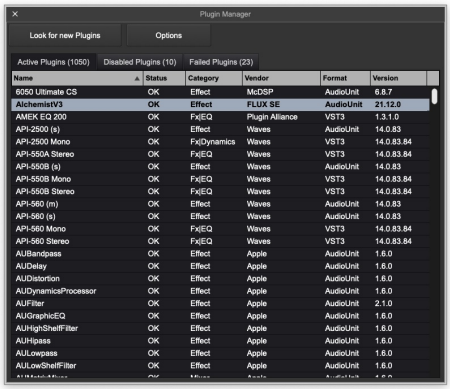
Plugin Manager Window

Within this Plugin Manager, you can install new plugins and edit the list of available plugins.

The plugin list is divided into three tabs: Active plugins, Disabled plugins, and Failed plugins.
You can right-click on any plugin to edit it.

Active plugins

These plugins are available for use and will appear in the plugin menu for adding to the project.



Disabled plugins

The user has the option to hide certain plugins from the plugin menu. This feature can be utilized to hide plugins that may be available in various formats or that the user wishes to keep hidden for practical reasons. To hide a plugin, go to the `ACTIVE PLUGINS` tab, right click and select `DISABLE SELECTED PLUGINS`

Failed Plugins

These plugins are files that the Plugin Scanner has scanned but could not load or crashed during loading.
You can try to re-scan the plugin by right-clicking on the plugin and selecting `RE-SCAN PLUGIN.`
Please note that this will scan the plugin directly and if the plugin crashes the program might also crash.

Installing new plugins

Click the `LOOK FOR NEW PLUGINS` - button to add new plugins.

In the popup menu that follows, select the desired plugin format.
Make sure all license dongles etc., are connected when scanning starts.

The Plugin Scanner will now look through the standard plugin folders on the computer for compatible plugins, do a basic test, and add them to the list. If there are many plugins installed, this process can take a while.

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Once the scan completes, you should see the full list of installed plugins

Options Menu

Clear List

This will empty the list of scanned plugins, effectively resetting all the plugin lists.
When the plugins are re-scanned, the disabled plugins will still be disabled.

Remove Missing Plugins

The list will be scanned to confirm the presence of plugin files on the disk. Any plugins that are no longer installed on the system will be removed from the list.

Clear Plugin Images

This will delete the images files used to display preview images in the plugin menu

Download Plugin Images

When the computer is connected to the internet, this feature attempts to download preview images of the plugins listed to use in the plugin menu.

Plugin formats

What are the differences between VST2, VST3, and AU plugins? Is there are recommended format?

When it comes to sound quality, there is no variation among different formats. However, the difference lies in how the plugin interacts with the host. Although there is no one format that is universally preferred, some users have reported an improvement in stability or performance for certain formats for certain plugins. If you encounter any difficulties with a plugin, it would be a good idea to experiment with various formats to determine if it resolves the problem.

VST2 (Virtual Studio Technology 2):

- VST2 is an older plugin format introduced by Steinberg in 1996 and quickly became a standard in the industry.
- VST2 plugins lack certain features compared to VST3, such as automation handling, and dynamic I/O.
- Due to its limitations, Steinberg has discontinued official support for VST2 in favor of VST3.

VST3 (Virtual Studio Technology 3):

- VST3 is the successor to VST2 and was introduced by Steinberg in 2008.
- It is designed to address the shortcomings of VST2 and provides several enhancements for developers and users.
- VST3 supports more efficient CPU usage, improved sample-accurate automation, and better handling of multi-channel audio.
- It also has additional features like VST3 note expression, which allows more expressive and flexible MIDI control.

AU (Audio Units):

- Audio Units is a plugin format developed by Apple and introduced in 2002.
- It is native to macOS and fully integrated into Apple's Core Audio framework.
- They offer features like side-chaining and MIDI-controlled effects, which were not available in VST2 at the time of its introduction.

Adding plugins to the project

In LiveProfessor, plugins can be added as part of a signal chain or as an independent freestanding unit.

A chain is a series of plugins that are connected sequentially.
Using chains to organize plugins has many benefits. You can easily group plugins that process specific instruments and rearrange their order by dragging them around..

If you require more flexibility and customizable routing options, you can add plugins directly to the project and route audio between them as desired. For more information on routing possibilities, please consult the Routing section.

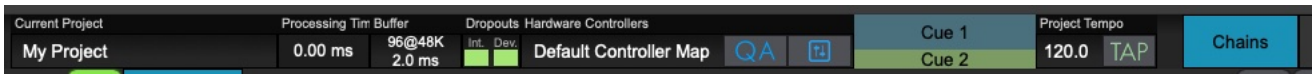
To add plugins to a chain, click the `+` button inside the chain. A menu will pop up, allowing you to select the plugin.

To add a plugin directly to the project, either add it using the plugin menu on the top of the screen or using the `+ PLUGIN` button in the Navigator panel

User Interface

Status Bar

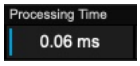
In the main window, a status bar at the top offers quick access to the current status and functions. The items in the status bar are described from left to right:



Current Project

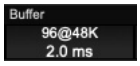
Displays the name of the loaded project

Processing Time



This is the amount of time LiveProfessor currently takes to process all plugins. It must remain lower than the buffer size and can be monitored over time in the Audio Performance panel.

Buffer



This section displays the current sample rate, buffer size, and buffer size in milliseconds. Clicking on it brings up options to change both parameters.

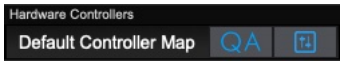
Dropouts

These are two indicators showing a red warning if processing takes too long, something that will cause click, pops, or crackle in the audio.
Clicking on these indicators will reset their status. There are two indicators:

Internal: This measures the time it takes for LiveProfessor to deliver audio to the audio driver. If delivery is on time, the indicator will be green. Otherwise, it will be red.

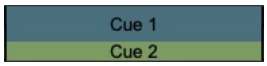
Device: These are indications of dropouts reported by the sound device. Even if LiveProfessor delivers the audio on time, other factors might prevent the audio driver from delivering it to the hardware on time. The driver then reports this back to LiveProfessor.

Hardware Controllers



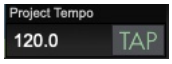
This section gives you quick access to the Hardware Controllers features. The first part displays the current Controller Map. Click on the name of the map to switch to a different map. Next is the Quick Assign button; this will put the controller into Quick Assign mode. Moving the plugin control and the hardware simultaneously, you can map a hardware control to a plugin parameter.
Last, there is the Map Editor button that opens the CONTROLLER MAP EDITOR.

Cues Section



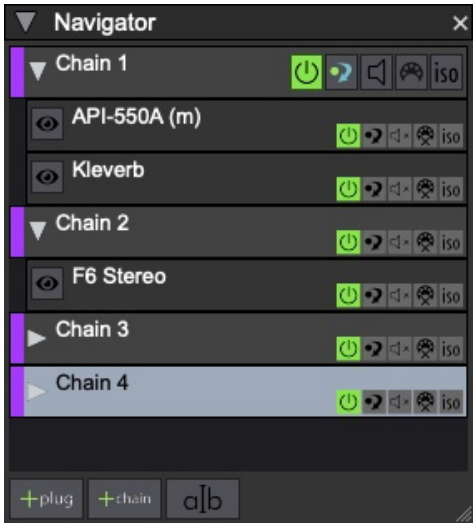
The upper text, in blue, shows the current Cue. The lower part in green, shows the next cue to fire when you trigger the `NEXT` command in the active cue list.

Project Tempo



This section controls the project tempo. Use the `TAP` button to tap in the wanted tempo. Tempo can also be controlled from the Transport & Tempo panel

Navigator Panel



The Navigator Panel displays a list of all Chains and Plugins used in the project.

Each item has buttons for controlling the processing state as well as a button for opening the plugin editor window.

Right clicking on an item in the list will bring up a context menu with additional options to mange the chain or plugin.

Chains can be re arranged by draging them up or down. This will also change the order in the Chain View.

The `+PLUG` button lets you add plugins to the project

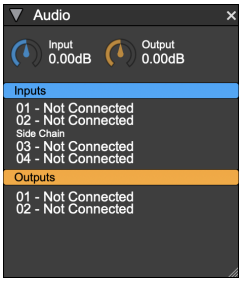
The `+CHAIN` button lets you add a new chain to the project

The `A|B` button lets you rename a chain or plugin

Audio Routing

LiveProfessor has a flexible audio-routing system. At the base is the simple concept that all inputs can sum any number of sources and any output can be split to any number of destinations. This applies to all chains and plugins added outside chains. Plugins inside a chain can not be routed outside the chain as they follow the signal flow inside the chain.

Audio Routing Panel



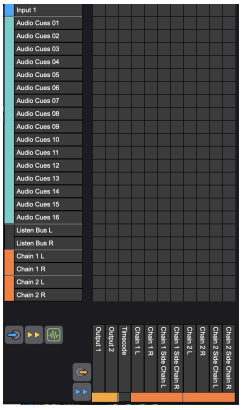
Audio to and from the currently selected plugin or chain can be routed in the audio routing panel.
Click on one of the chain or plugin inputs/outputs and select the destination/source you want.

Holding down the `CMD/CTRL` lets you choose multiple sources/targets to split or sum the audio.

In this panel, you can also access the selected processor's input and output gain.

Audio Patch View

The Audio Patch view shows sources (everything that can produce audio) in the vertical column and targets (all destinations) in the horizontal column. The main area shows the connections between sources and targets.To route audio click anywhere in the grid to make a connection.



You can make mulitple connections by clicking and dragging diagonaly.

Holding down the `CMD/CTRL` lets you choose multiple sources/targets to split or sum the audio.

Holding down the ctrl/cmd key while selecting an input or output will split/sum the signal.

In the lower left part of the audio patch view there are buttons to let you show or hide specific groups of sources and targets.

For sources these groups are `HARDWARE INPUTS`, `CHAIN OUTPUTS` and `AUDIO CUE OUTPUTS`

For targets the groups are `HARDWARE OUTPUTS` and `CHAIN INPUTS`

Wire View

The wire view presents the entire audio and midi routing as nodes with "wires".

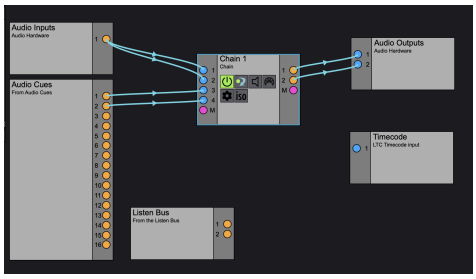
The wire view is great for giving an overview of the patch and for making more complex

routing setups.

The connection points on the nodes are color coded, audio inputs are blue, audio outputs are orange and Midi is pink.

Draging from one connection point to the other makes a connection.

In the wire view, summing and splitting is performend simply by dragging the same connection point to multiple targets, dragging multiple sources to the same target.



Routing using Cues

In addion to preforming manual routing, routing commands can also be performed by the Cue List. An audio route cue sets the audio routing for a specific processor, and can be recalled inside a cue.

Snapshot Automation

Global Snapshots

Global snapshots save and recall complete setups within the same project.

These snapshots are great for recalling complex changes in the project. Global Snapshots will store all information and recall it based on a Filter specified in each snapshot, much like the snapshot feature on many digital mixers.

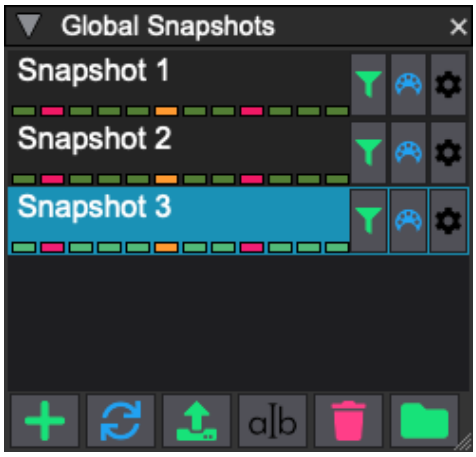
Working with Global Snapshots

To create a new Global Snapshot, click the `+` button in the Global Snapshots panel

To update the currently loaded snapshot with new settings, click the `UPDATE` button (blue, round, arrows).
If you want to update a specific snapshot with the current settings, click on the options button on the snapshot (cogwheel) and select `UPDATE SNAPSHOT`

To recall a snapshot, either double-click it or select it and click the `RECALL` button (Green arrow)

You can rearrange the snapshots in the list by drag and drop. You can also organize snapshots in to folders by clicking on the folder button.



What is included in a Global Snapshot

These functions are saved and recalled in a global snapshot:

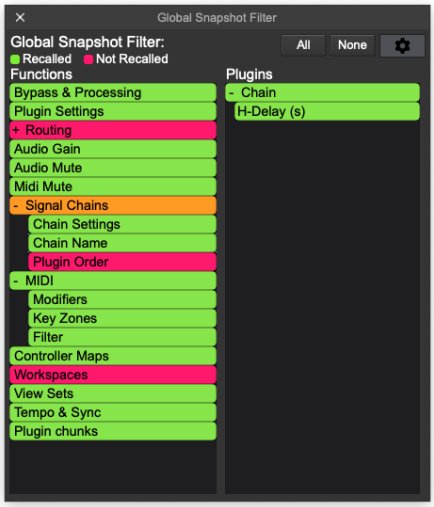
- Processing state (Enabled, Bypass, Mute) for all chains and plugins
- Plugin Settings
- Audio & Midi Routing
- Input & Output Gain
- Chain Name
- Plugin Order
- Midi Modifiers, Keyzones and Filter for all plugins and chains
- Selected Controller Map
- Selected View Set
- Selected Work Space
- Tempo Settings

These functions are not saved and recalled

- Loading and unloading of plugins, Global Snapshots will not change the type of loaded plugins
- Project Options
- Program Options

Filtering Snapshots

The snapshot filter controls what is recalled in each snapshot. Everything is saved in each snapshot and you choose what you want to recall. The snapshot filter for each snapshot can be accessed by clicking on the `FILTER BUTTON` on the snapshot you want to edit.



Clicking on each item in the list will toggle its state. Green items will be recalled, and red items will not be recalled.

Default Filter

You can set a default filter to be used for new snapshots by clicking on the `SETTINGS BUTTON` (cogwheel) in the filter editor. Then select `USE AS DEFAULT FILTER`

Triggering Global Snapshots

Global Snapshots can be triggered by external devices in several ways.

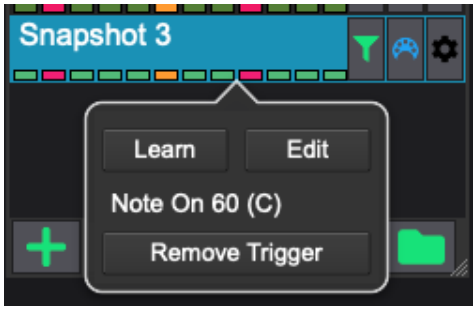
Triggered from Cues

You can add a global snapshot to a cue list. This lets you build set lists and use more advanced options such as wait times and triggering multiple actions at the same time.

Triggered via MIDI Messages

Global Snapshots can be triggered directly via MIDI messages. Wlthough this does not allow for advanced use like the cue lists it serves are a simple and efficient solution when you just want the snapshots to follow the main audio desk for example.

To set up a MIDI trigger, click the MIDI symbol on one of the snapshots, then click the `LEARN` button.
The Snapshot List will listen to all Midi inputs and assign the next incoming message to the snapshot.



Triggered via OSC

Global Snapshot can be triggered using OSC commands.

The command can contain either the snapshot name or the index in the list (zero-based)

`/GLOBALSNAPSHOTS/RECALL [SNAPSHOT NUMBER (NUMBER)]`
`/GLOBALSNAPSHOTS/RECALL [SNAPSHOT NAME (TEXT)]`

Before OSC commands can be received you either have to enable global OSC commands or add an OSC Controller.

To enable the global OSC commands, go to:

`OPTIONS > PROJECT OPTIONS > OSC CONTROL` .

- Enable OSC Control

This turns on/off the sending and receiving of OSC commands. This does not affect any Hardware Controllers added, but it does affect the triggers in the Cue Lists.

- Input Port

The UDP network port that LiveProfessor will listen for OSC Messages on. This should match the port set on the sending device.

- Output Port

LiveProfessor uses this port to send information back to the controller to make it able to display the current state.

- Local Ip Address

This is a list of local IP Addresses found on the system. This is just for convenience and can be used to enter the correct address in the sending device.

Cue lists and fading values

Global Snapshots can be added to a Cue List, this will give better flexibility in building for instance set-lists. as you can have multiple lists with the same snapshot, and the same snapshot can be used multiple times in the same list.

In addition, when added to a cue list, the plugin parameters can be faded by specifying a fade time on the cue. Please note that some plugins contain data that can not be faded, typically presets, samples etc. If you want to avoid loading these big changes and just fade the automatable parameters, you can use the Snapshot Filter and filter out `PLUGIN CHUNKS.`

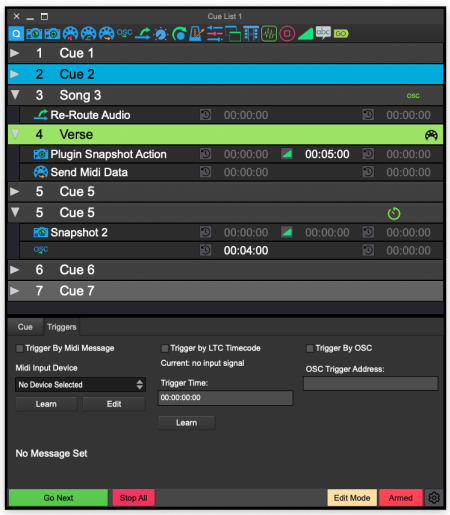
Cue Lists

Introduction to cue lists

Cue Lists lets you build your show using a theatre-style cue list. Cue Lists can also be thought of as a set list where one or more cues represent a song. Each cue list consists of cue groups, which contain multiple child cues that execute various actions on the program. When a cue group is triggered, all of its child cues are executed as well, optionally with individual wait times or fade times. These child cues can do things like recalling a snapshot, changing the audio patch, or sending MIDI messages.

Creating a Cue List

In the Cue Lists panel, you can find all the cue lists. The panel consists of three buttons: `ADD` (Plus symbol), `RENAME` (a|b symbol), and `DELETE` (X symbol). If you click the `ADD` button, you can create a new Cue List for your project. You can have as many Cue Lists as you need. To open a particular Cue List, double-click on it from the list.



The Cue List Window

The Cue List Window is split into four distinct sections. The top section is the toolbar used for dragging and dropping cue types into the list. The main section is the cue list itself, containing all the cues. Below the list is the Cue Editor, where you can adjust the properties of the selected cue. At the bottom of the window, there's a panel with a `GO NEXT` button, an `EDIT-MODE` button, an `ARMED` button, and a `SETTINGS` button.

A selected cue list can also be viewed in the Cue List View Mode (Next to chains, patch, and wire view). This allows you to choose a list to view the full screen within the main window.

Working with Cues

To add cues, simply drag the desired cue type from the toolbar onto the cue list. LiveProfessor automatically adds a parent cue for each new cue to keep the list organized. For Snapshot Recalls, you can drag the snapshot directly to the cue list to create the cue.

To move cues, simply drag them within the list or to other lists. If you want to copy them, hold down the ctrl/cmd button while dragging. A green line indicates where the cue will be placed once you release the mouse button.

To delete a cue, right-click on it and select "Remove Cue".

All cues in the Cue Editor have common properties that can be modified, such as the Cue Name, Cue Number, and Wait times.

During a performance, moving through the cue list in order is common. The "Go Next" function will activate the next Parent Cue (Green) on the list and execute its commands.

To set a cue as "Next", right-click and select "Set as next cue".

Cue Colors

Cues change colour based on their state: Green for the Next Cue and blue for active, including fading, waiting, and playing.

Wait Times

All child cues can be delayed before and after execution by adjusting the wait time using either the clock symbol on the cue or the cue editor.

A Pre-wait time will delay the start or execution of a child cue; all other child cues fire independently.
A post-wait time allows for creating a sequence by making the next child cues wait until the pre, post, and fade times are complete.

Fade Times

Fade times can be set to fade a parameter such as a snapshot, gain change or tempo change. The fade time can be adjusted by clicking the green triangle button and inputting a value in seconds.

Some actions do not have fade times, such as patch changes.

Available Cue Types

Cue Group

Cue Groups serve as a container for all commands within a single cue. Cues must be included within a Cue Group to be triggered. There are two modes for Cue Groups: "Fire all cues in group," which executes all child cues and moves to the next cue, and "Step into group," which can be used with subgroups to act more like a folder or sub list.

Global Snapshot Cue

The global snapshot cue will recall the specified global snapshot. It can be created either by dragging a Global Snapshot Cue from the tool bar, or by dragging in the actual snapshot from the Global Snapshot List.

Plugin Snapshot Cue

The plugin snapshot cue will recall the specified plugin snapshot. It can be created either by dragging a Plugin Snapshot Cue from the tool bar, or by dragging in the actual snapshot from the Plugin Snapshot List. The Plugin Snapshot cue also have option to set a recall filter to limit the parameters being recalled.

Midi Mute Cue

The Midi Mute Cue lets you set the Midi Mute state of multiple plugins and chains in a single cue. This allows a keyboard player to switch sound from one chain or plugin to the other. Midi Mute feature should allow you to hold keys while the mute action is fired allowing you to switch sounds without affecting the sustain of the currently played sound.

Midi Patch Cue

The Midi Patch cue will let you change the MIDI Inputs, outputs as well as the MIDI modifiers, Key Zones and MIDI filter for a specific plugin or chain.

OSC Send Cue

The OSC Send Cue will send custom OSC commands when the cue fires. The network destination can be defined by clicking the `DESTINATIONS` button and specifying the IP address and port.

To send an OSC command with parameters, add a space after the address and enter the parameter. 1 will be sent as an INT, 1.0 will be sent as a float and "text" will be sent as a text string

Audio Route Cue

The Audio Route Cue lets you set the audio patch of a single plugin or chain

Gain Cue

The Gain Cue lets you set the input and output gain and audio mute of a specific plugin or chain. Additionally, you have the option to set a fade time to gradually modify the gain over time. The green triangle button on the cue or the Cue tab in the cue editor allows you to specify the fade times.

Processing State Cue

The Processing State Cue lets you set the On/Off, Bypass, Audio Mute and Midi Mute of a specific plugin or chain.

Tempo Change Cue

With the Tempo Change Cue, you can set the project tempo and time signature. Additionally, you have the option to set a fade time to gradually modify the tempo over time. The green triangle button on the cue or the Cue tab in the cue editor allows you to specify the fade times.

Controller Map Cue

The Controller Map Cue allows you to switch between different controller maps, making it possible for the same hardware controller to control different software parameters in each cue.

View Set Cue

This feature allows you to switch between view sets, making specific plugin windows visible in each cue.

Work Space Cue

This will recall the specified Workspace, including the docking of panels, visible cue lists and changing view modes.

Audio Cue

This cue lets you play audio files in the cue list.

Stop Audio Cue

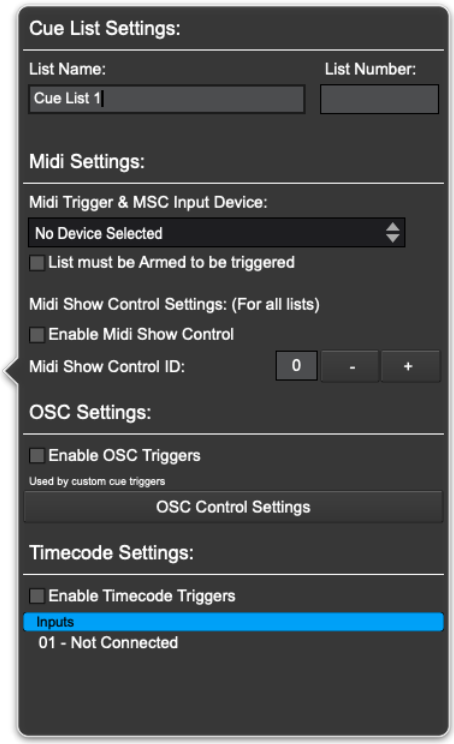
This cue will stop the specified Audio Cue if playing.

Audio Fade Cue

This cue will fade an audio cue to the specified levels. You have the option to set a fade time to gradually modify the volume over time. The green triangle button on the cue or the Cue tab in the cue editor allows you to specify the fade times.

Cue List Settings

The Cue List Properties window can be accessed by clicking on the SETTINGS BUTTON (Cogwheel) located in the lower right corner of the Cue List. It contains all the settings for the cue list.



List Name & List Number

Each cue list can be assigned a name and a list number. The name describes the list, while the list number is used for controlling specific lists via MIDI Show Control.

Midi Settings

To use Midi Show Control or custom midi triggers on each cue, a MIDI input device must be selected.
The input device can be selected from the drop-down menu in the Cue List Properties.

When LIST MUST BE ARMED TO BE TRIGGERED is checked, the Cue List will only respond to MIDI messages when the red ARMED button is enabled.
The ENABLE MIDI SHOW CONTROL checkbox allows for the toggling of Midi Show Control message listening.
The Cue List Midi Settings are global settings shared by all cue lists in the project.

OSC Settings

The ENABLE OSC TRIGGERS checkbox controls, if the individual, custom OSC triggers on each cue, should be enabled or not. Note that Global OSC messages, or OSC Controllers are still able to trigger the list using the global OSC commands.

OSC Control Settings

This will bring up the OSC Control settings window. This is a global setting and is equal to going to Controllers > OSC Options

Timecode Settings

Each cue in the cue list can be triggered by time code. To enable the time code input for a list, click the Enable Timecode Triggers button and select the audio input that is receiving the LTC Timecode signal.

Controlling Cue Lists

There are multiple ways to control the cue lists in LiveProfessor to allow for different workflows.
The list can both be run sequentially, with a "Go Next" approach, or each cue can be triggered individually, for instance, following the snapshot list of the main audio desk.

The Cue List can be controlled in the following ways:

- Mouse / Keyboard
- Hardware Controller (OSC or MIDI)
- OSC Commands
- MIDI Show Control
- Individual, custom Midi triggers
- Individual, custom OSC triggers
- LTC Timecode

Mouse / Keyboard

Using the mouse, a cue can be triggered by double-clicking it, or clicking on the `GO NEXT` button.
Using the keyboard, the following commands can be assigned keyboard shortcuts by going to Options > Keyboard Shortcuts

- Fire Next Cue
- Fire Previous Cue
- Step Up (default option + cursor up)
- Step Down (default option + cursor down)
- Go to top
- Stop All Cues (default cmd + escape)

Only the list with the Armed button enabled will receive the commands.

Hardware Controllers (OSC or MIDI)

If you have defined a Hardware Controller in Controller > Hardware Controllers Setup you can assign a button to the following commands:

- Fire Next Cue
- Fire Previous Cue
- Step Up
- Step Down
- Go to top
- Stop All Cues

These are available in the Controller Map Editor under LiveProfessor Commands > Cue Lists

Only the list with the Armed button enabled will receive the commands.

OSC Commands

The Cue Lists can be directly controlled using the global OSC Commands. This allows direct control over the cue lists without defining a Hardware Controller.

This is a great option if you can define specific commands on the sending device. (like Qlab or TouchOSC etc)

Available OSC Commands

/Cue/Recall [List number (text)] [Cue number (text)]	*Recall a cue from a specific cue list*
/Cue/Recall [Cue number (text)]	
/Command/CueLists/FireNextCue	
/Command/CueLists/FirePreviousCue	
/Command/CueLists/StepUp	
/Command/CueLists/StepDown	
/Command/CueLists/GoToTop	
/Command/CueLists/StopAllCues	

To enable the global OSC commands, go to:

`OPTIONS > PROJECT OPTIONS > OSC CONTROL` .

- Enable OSC Control

This turns on/off the sending and receiving of OSC commands. This does not affect any Hardware Controllers added, but it does affect the triggers in the Cue Lists.

- Input Port

The UDP network port that LiveProfessor will listen for OSC Messages on. This should match the port set on the sending device.

- Output Port

LiveProfessor uses this port to send information back to the controller to make it able to display the current state.

- Local Ip Address

This is a list of local IP Addresses found on the system. This is just for convenience and can be used to enter the correct address in the sending device.

MIDI Show Control

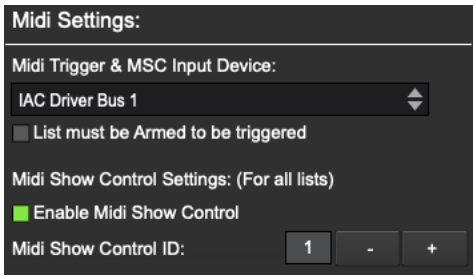
The Cue Lists in LiveProfessor can be controlled using the Midi Show Control protocol.

To enable MIDI Show Control, open the Cue List Settings panel by clicking on the button in the lower right of the cue list.

Select the MIDI Device with the incoming MSC Signal from the dropdown menu.

Then enable midi show control and set the correct device ID, as defined in the sending device.

Note that the list must be Armed for the MSC to work.



Individual, custom Midi triggers

To trigger individual cues using MIDI, you can assign a custom MIDI trigger to each cue. This enables the list to follow the snapshot list of the main mixer, or allows specific cues to be triggered by any other midi device.

To set the trigger on each cue, select the cue and go to the Triggers tab in the cue editor.

Select the midi input device you want to use from the dropdown menu. It will be used for all cues in all cue lists.

Turn on the `TRIGGER BY MIDI` button on the cue

To set the trigger, press the "Learn" button and capture the incoming MIDI message. You can also set the message manually or edit it by clicking on the `EDIT BUTTON`

By default, individual MIDI triggers will activate the cue regardless of the armed state of the cue list. However, there is an option in the cue list settings that allows you to change this behavior. By selecting `LIST MUST BE ARMED TO BE TRIGGERED`, triggers will only work when the list is in armed mode. This is useful if you need to temporarily disable the triggers.

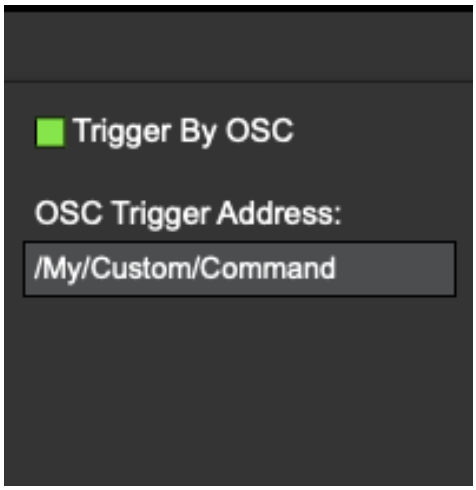
Individual, custom OSC triggers

While the Cue Lists can be controlled through the built-in OSC commands, there may be instances where you need to trigger cues using a custom address. This could be due to a lack of control over the commands being sent out by the controlling device. By utilizing individual and customized OSC triggers, the cues can be bound to almost any incoming OSC command, regardless of the message format.

To enable the individual OSC triggers open the Cue List Settings panel and click on Enable OSC Triggers.

You must also set the OSC input port to be used. This is a shared setting with the global OSC commands.

Once this is set up, click on the cue you want to trigger.



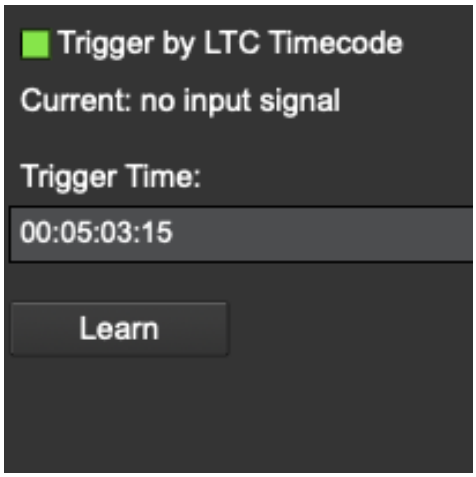
Go to the Triggers Tab in the Cue editor, then click on Trigger By OSC

Next, type in the OSC address to be used as the trigger.

LTC Timecode

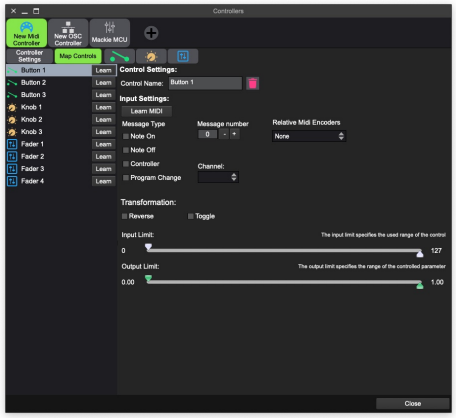
Cues can be triggered using an incoming Timecode (LTC). The timecode is received as an audio signal on any input from the currently used audio device.

To enable Timecode Triggers, go to the Cue List Settings panel and click `ENABLE TIME CODE TRIGGERS`, then select the audio input with the time code signal from the drop-down menu. (The LTC input can also be set in the Audio Patch and the Wire View)



When you're ready to trigger a cue, navigate to the Triggers tab in the Cue Editor and select `TRIGGER BY LTC TIMECODE`. You can then input the desired trigger time by typing it into the text field or by using the `LEARN` button to set it based on the current incoming time.

Hardware Controllers



LiveProfessor's Hardware Controllers section allows for easy control of plugin parameters and program functions using hardware devices such as MIDI or OSC Controllers. The system is designed to be flexible yet quick to use by creating an additional layer between the hardware and controlled parameters. Virtual knobs, buttons, and faders are assigned MIDI messages and labelled to resemble the hardware being used.

These virtual controls are then assigned to parameters using Controller Maps. This setup provides greater control over the mapping and the hardware setup can be reused in future projects.

These controllers can be saved to a file and be reused in future projects.

Defining a new controller

To create a new controller, go to the `CONTROLLERS` menu and select `HARDWARE CONTROLLERS SETUP`.

Click on the `+` button and select the type of controller you want to add. If you have previously saved a controller, it can be loaded here using the `LOAD FROM FILE` button.

MIDI Controllers

For controlling LiveProfessor using generic midi devices with buttons, knobs or faders.

The available settings include

`NAME:` A user selected, descriptive name for the controller.

`INPUT DEVICE`: The device that sends MIDI to LiveProfessor.

`OUTPUT DEVICE`: This sends feedback to the controller if the controlled parameter changes and allows it to update its state.

OSC Controllers

LiveProfessor can be controlled using the Open Sound Protocol.

`IP-ADDRESS OF CONTROLLER:` This is the IP address LiveProfessor will send feedback to keep the hardware controller updated on changes to the mapped parameters.

`INPUT PORT:` The network port (UDP) that LiveProfessor should listen to for control data.

`OUTPUT PORT:` The port used for sending feedback to the controller

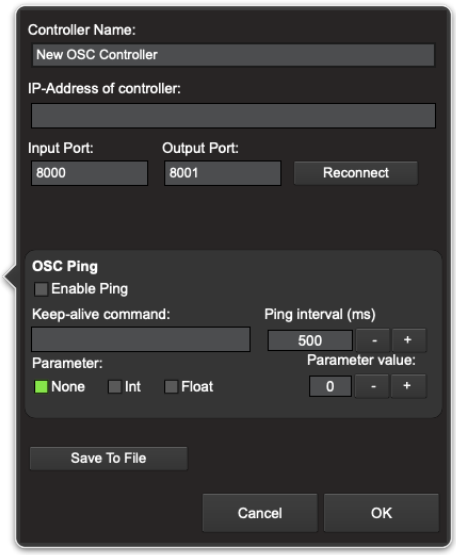
`OSC PING:` Some controllers require a message to be sent at regular intervals to keep the connection alive.

This section allows you to specify the command, interval and parameter value to be sent.

Companion Controller

The Companion Controller will be used with the Companion application and an Elgato StreamDeck. More information on Companion can be found here

As it builds on the normal OSC controller all functions available in the OSC controller is also available in the Companion Controller.

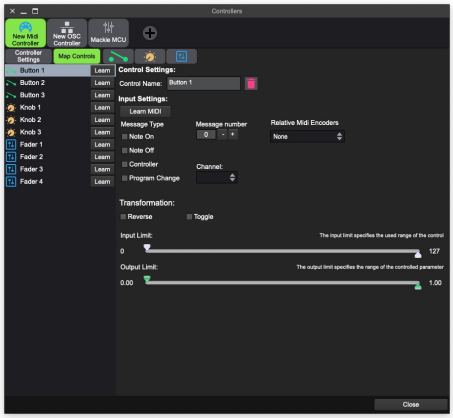


MCU Controller

The MCU Controller implements the Mackie MCU Protocol used by many MIDI Hardware Controllers. The setup is the same as for a Generic Midi controller, but it will use the MCU protocol and will have predefined knobs and faders according to the protocol. In addition to the predefined controls, you can add any custom controls you might need.

Defining The Controls

The controller definition in LiveProfessor will be the link between your hardware and the software.



- Select the controller by clicking on the button with its name on the top of the Hardware Controllers window.
- Clicking on one of the three buttons that lets you to define a controller of the type `BUTTONS`, `KNOBS`, or `FADERS`.
- For each of the controls, label it in the Control Name field.
- Click on the Learn button and activate the control on the hardware device.
  Once all the controls have been assigned messages from the hardware you will see them react in the control list.

Controller Maps

Controller Maps define how the hardware controller's knobs, faders and buttons correspond to specific parameters of your audio effects and processors. For example, you can map a hardware knob to control the size of a reverb effect or map a fader to adjust the wet/dry mix of an effect.

You can have as many controller maps as you like and switch between them using Global Snapshots or Cues. Switching between multiple maps allows the same hardware to be mapped to different parameters, for instance, depending on different songs.

The Controller Maps window can be opened by:

- Clicking on `MAP CONTROLS` in the Hardware Controller Window
- Using the menu `CONTROLLERS > MAP CONTROLLERS`
- Use the `MAP` button in the application status bar

Mapping

- Open the Controller Map editor using one of the ways described above.
- Select a controller you want to map
- Select one of the controls (knobs/buttons/faders) to which you want to assign a parameter.
- In the list on the right, find the parameter of the program function you would like to assign the control to. Use the + buttons to expand each section.
- By holding down the Ctrl/Cmd key, you can map one control to multiple parameters.

Quick Assign

The Controller Map provides an overview of mapped controls. To simplify mapping, you can use the Quick Assign feature, which lets you map a controller without searching the parameter list.

There are two ways to activate Quick Assign:

- Using the `QA` button in the status bar in the main program window
- Keyboard shortcut Ctrl/Cmd + A
  After activating Quick Assign mode, you can assign controllers by changing a parameter with the mouse in a plugin while physically moving a hardware control to link them.

Note that some plugins can't be mapped using quick assign because they don't send parameter changes back to LiveProfessor.

Mapping Program Functions

In addition to plugin parameters, application commands can be assigned to button presses from the controllers. These commands can be found in the `LIVEPROFESSOR COMMANDS` section of

the mapping list. These can only be mapped from the Controller Map editor and not using Quick Assign.

Controller Transformations

Sometimes, directly mapping a hardware control to a plugin parameter is not enough; you might also want to tweak how the knob or button responds. LiveProfessor has several options for changing the response and behaviour of the hardware controller through controller transformation. The transformation can be done at two points;

- On the control itself, it will then apply to all Controller Maps. This can be used when you want to compensate for specific hardware behaviour. This transform is set in the Hardware Controller editor.
- In the Controller Map. This transformation will only be applied to the specific map. This is used to make the controller work better with a particular plugin parameter, for instance. The transformation for each map is edited by clicking on the `TRANSFORM` button in the map editor.
  The best way to understand the different transformation types is to try them out, but here is a brief overview:

Types of transformation

Buttons:

- Reverse - Reverses the behaviour of the button, press becomes release and release becomes press
- Toggle - This will change the state of the mapped parameter each time the button is pressed.
- Input Limit - Scales the received input value (MIDI or OSC message) to control when the button should trigger
- Output Limit - By default, a button will give the controlled parameter a value of 100% when pressed. Using the limit, you can reduce this if needed.
  Knobs and Faders:

- Reverse - Reverses the behaviour of the fader or knob
- Relative - Uses the relative change of the control, not the absolute value
- Input Limit - The input limit sets the input range used by the control
- Output Limit - specifies the range the controlled value can travel
- Logarithmic Curve - applies a curve to the fader or knob to make them respond more naturally to volume/gain changes

Reverse

Inverts the logic of the control.
When a fader or knob is turned all way down (0%), the controller will output 100%.
A button will be ON when not pressed and OFF when pressed.

Toggle (Buttons)

Each time the button is activated, the controller will switch the state of the button. This mode will ignore the “button up” message, so only the press will be used.

Relative

Instead of moving the controller to the absolute position of the hardware controller, the value is changed relatively.

Input Limit

Moving these two sliders lets you specify what part of the midi message should be used. The software control will only respond to messages inside this range. Input limit can limit the range of a physical knob or fader.

Output Limit

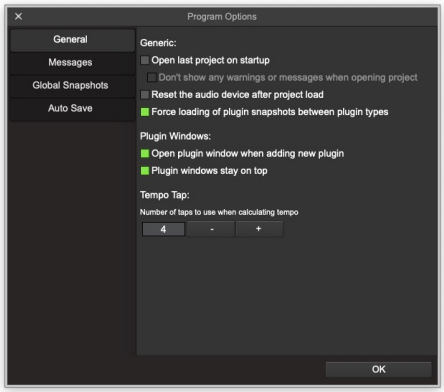
Moving these sliders sets a limit on the controlled parameter.

If you, for instance, want to control a frequency parameter, the range might be 20-20.000hz.

Using the output limit, you can make the physical knob only work in a set range, let’s say 200 – 2000. This will improve the accuracy and the feel of the knob.

Program Options

General Program Options



To access the program options, navigate to the main menu and select Options, followed by Program Options.

Open the last project on startup
When this option is on the last opened project will automatically load when the program is started.

Reset the audio device after project load
This will close and restart the audio device after a project has been loaded. This setting is off by default but can be used if there are issues with audio devices not resetting properly.

Force loading of plugin snapshots between plugin types
If you turn on this option in LiveProfessor, it will not prevent you from loading a snapshot from one plugin onto a plugin of a different type.

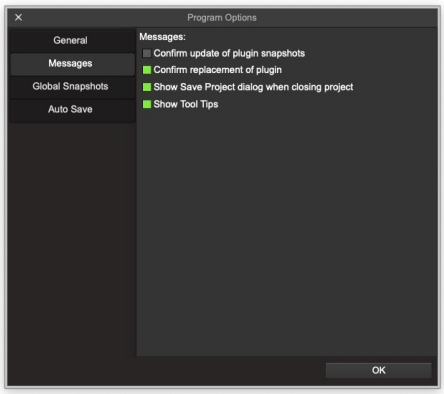
The advantage of not enforcing the check is that it can enable cross-compatibility between versions of the same plugin, such as a different format or channel configuration.

However, the downside is that a snapshot could be loaded onto an entirely different plugin type where the parameters and values represent something completely unrelated, such as loading reverb settings onto a distortion plugin. Therefore, it is recommended to use this option with caution.

Open plugin window when adding new plugin
This will open the plugin window of any new plugin added to the project.

Plugin windows stay on top
This will force the plugin windows to stay on top of any other windows on the system

Messages Options



This section of the program options lets you control the presence of warnings and confirmations.

Confirm update of plugins snapshots

This will show a dialogue box asking you to confirm updating of plugin snapshots. Turn this on to prevent accidental updates.

Confirm replacement of plugin

When this option is on you will be asked to confirm the action when replacing a plugin.

Show Save Project dialog when closing projects

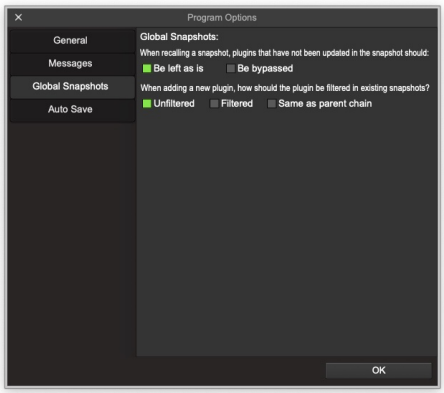
When this option is on the user will be asked to save the project before exiting the application.

Show Tool Tips

Tooltips are small pop-up messages that appear when the mouse hovers over an item in the user interface. Although they often provide useful explanations of the item, they can also be annoying. Users have the option to turn them off here.

Global Snapshots Options

These options control the behavior of the global snapshots.



Currently, there are two options that both decide what to do with plugins that are not already in the snapshot.

When recalling a snapshot, plugins that have not yet been added to the snapshot should:

`BE LEFT AS IS` or `BE BYPASSED`

The idea here is that if you add a new plugin to a chain and recall a snapshot made before you added the plugin, you would need to bypass the new plugin to get the same signal path as that stored in the snapshot.

When adding a new plugin, how should the plugin be filtered in existing snapshots:

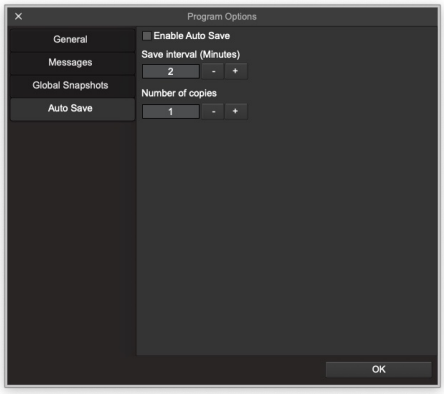
`UNFILTERED`: The plugin will be included/recalled in all snapshots

`FILTERED`: The plugin will be filtered by default in all snapshots

`SAME AS PARENT CHAIN`: The filter will follow the filter of the chain that gets a new plugin.

Auto Save

The Auto Save function automatically saves the project at regular intervals, while optionally retaining versions of the project. The files are saved in a subfolder located next to the main project file.

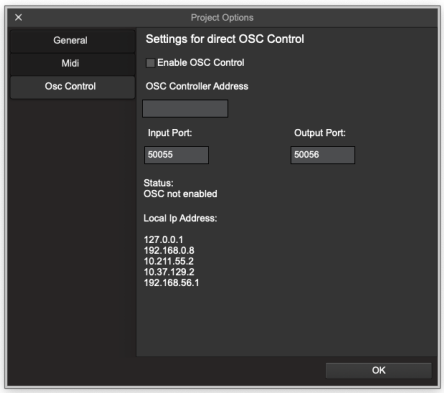


`INTERVAL` decides how often a backup should be made, and `NUMBER OF COPIES` sets the number of versions that should be retained.

OSC Control

Global OSC Commands

These are application commands that directly control the program. The functionality is much the same as keyboard commands.



Examples are: Recalling a snapshot, changing the Workspace, or setting the tempo.

To enable the global OSC commands, go to:

`OPTIONS > PROJECT OPTIONS > OSC CONTROL` .

- Enable OSC Control

This turns on/off the sending and receiving of OSC commands. This does not affect any Hardware Controllers added, but it does affect the triggers in the Cue Lists.

- Input Port

The UDP network port that LiveProfessor will listen for OSC Messages on. This should match the port set on the sending device.

- Output Port

LiveProfessor uses this port to send information back to the controller to make it able to display the current state.

- Local Ip Address

This is a list of local IP Addresses found on the system. This is just for convenience and can be used to enter the correct address in the sending device.

List Of Global OSC Commands

Please note that these commands will also work when adding OSC Controller using the Hardware Controllers Section

Global Snapshots	
/GlobalSnapshots/Recall [snapshot number (number)]	*This number is zero-based, so 0 is the first snapshot; it can be sent as float or int*
/GlobalSnapshots/Recall [snapshot name (text)]	*Recall snapshot by name (string)*
/GlobalSnapshots/Refresh	*This will send back /GlobalSnapshots/Name for all snapshots so that you can rebuild a list of snapshots*
/Command/GlobalSnapshots/AddNewGlobalSnapshot	
/Command/GlobalSnapshots/UpdateActiveGlobalSnapshot	
/Command/GlobalSnapshots/RecallNextGlobalSnapshot	
/Command/GlobalSnapshots/RecallPreviousGlobalSnapshot	
Global Snapshot Feedback	
/GlobalSnapshots/Added	*Parameters: Name of the snapshot, Index of snapshot*
/GlobalSnapshots/Removed	*Parameters: Name of the snapshot, Index of snapshot*
/GlobalSnapshots/Changed	*Parameters: Name of the snapshot, Index of snapshot*
/GlobalSnapshots/Cleared	
/GlobalSnapshots/Recalled	*Parameters: Name of the snapshot, Index of snapshot*
/GlobalSnapshots/Name	*Parameters: Name of the snapshot, Index of snapshot*
/GlobalSnapshots/Moved	*The list order has changed, use /GlobalSnapshots/Refresh to get the list*

Cue Lists	
/Cue/Recall [List number (text)] [Cue number (text)]	*Recall a cue from a specific cue list*
/Cue/Recall [Cue number (text)]	
/Command/CueLists/FireNextCue	
/Command/CueLists/FirePreviousCue	
/Command/CueLists/StepUp	
/Command/CueLists/StepDown	
/Command/CueLists/GoToTop	
/Command/CueLists/StopAllCues	
Cue List Feedback	
/CueLists/NextCue	*Parameter: Name, Name of the next cue to fire has changed*
/CueLists/ActiveCue	*Parameter: Name, Name of the active cue has changed*
ViewSets	
/ViewSets/Recall [index (int)]	*Recall a specific view set (zero-based)*
/ViewSets/Refresh	*Sends a /ViewSets/Update command for all view sets, so you can update a list. in the controller*
/Command/ViewSets/RecallViewSet1	
/Command/ViewSets/RecallViewSet2	
/Command/ViewSets/RecallViewSet3	
/Command/ViewSets/RecallViewSet4	
/Command/ViewSets/RecallViewSet5	
/Command/ViewSets/RecallViewSet6	
/Command/ViewSets/RecallViewSet7	
/Command/ViewSets/RecallViewSet8	
/Command/ViewSets/RecallViewSet9	

/Command/ViewSets/RecallViewSet10	
View Sets Feedbacks	
/ViewSets/Changed	*Sent when a View Set has been added, removed, renamed*
/ViewSets/Recall	*Sent when a View set has been recalled*
Generic Application Commands	
/Init	*This will send back all view sets and global snapshot names to the controller*
/StatusPoll	*This will send back status info (at the moment the "DSP-meter" value)* *You will get back:* */DSPmeter with value as a float parameter*
/Command/Application/Quit	
/Command/General/Exit	
/Command/Project/NewProject	
/Command/Project/OpenProject	
/Command/Project/SaveProject	
/Command/Project/SaveAs	
/Command/Project/SaveAsTemplate	
/Command/Project/CloseProject	
/Command/Project/RenameProject	
/Command/Options/PluginManager	
/Command/Options/Audio&MidiOptions	
/Command/Options/ProgramOptions	
/Command/Options/ProjectOptions	
/Command/Options/KeyboardShortcuts	
/Command/View/PluginAudioRouting	
/Command/View/PluginMidiPanel	
/Command/View/PluginSnapshotPanel	

/Command/View/PluginPresetList	
/Command/View/Navigator	
/Command/View/CueListPanel	
/Command/View/GlobalSnapshotsPanel	
/Command/View/TransportPanel	
/Command/View/WorkspacePanel	
/Command/SelectedPlugin/DuplicateSelectedPlugin	
/Command/SelectedPlugin/RemoveSelectedPlugin	
/Command/Transport&Tempo/TempoTap	
/Command/Transport&Tempo/MidiClockSyncOnOff	
/Command/Transport&Tempo/ReturnToZero	
/Command/Transport&Tempo/StartStopTransport	
/Command/ViewModes/Chains	
/Command/ViewModes/LiveCueList	
/Command/ViewModes/PatchView	
/Command/ViewModes/WireView	
/Command/ViewModes/ZoomInWireView	
/Command/ViewModes/ZoomOutWireView	
/Command/Chains/AddNewChain	
/Command/View/FullScreen	
/Command/General/MIDIPanic	
/Command/Controllers/HardwareControllersSetup	
/Command/Controllers/MapControllers	
/Command/Controllers/QuickAssign	
/Command/CueLists/StopAllCues	
/Command/CueLists/FireNextCue	
/Command/CueLists/FirePreviousCue	
/Command/CueLists/StepUp	
/Command/CueLists/StepDown	

/Command/CueLists/GoToTop	
/Command/SelectedPlugin/EnableProcessingOnSelectedPlugin	
/Command/SelectedPlugin/EnableBypassonselectedplugin	
/Command/SelectedPlugin/EnableAudioMuteonselectedplugin	
/Command/SelectedPlugin/EnableMIDIMuteonselectedplugin	
/Command/SelectedPlugin/EnableISO-Modeonselectedplugin	
/Command/SelectedPlugin/UpdateActiveSnapshot	
/Command/SelectedPlugin/CreateNewPluginSnapshot	
/Command/SelectedPlugin/RenameActiveSnapshot	
/Command/SelectedPlugin/AddanewViewSet	
/Command/PluginWindows/ShowHideselectedplugin	
/Command/PluginWindows/TogglePluginWindows	
/Command/PluginWindows/Sendalltoback	
/Command/PluginWindows/Sendalltofront	
/Command/PluginWindows/SelectNextChain	
/Command/PluginWindows/SelectPreviousChain	
/Command/PluginWindows/SelectNextPlugin	
/Command/PluginWindows/SelectPreviousPlugin	
/Command/Workspaces/AddNewWorkspace	
/Command/Workspaces/UpdateActiveWorkspace	
/Command/Workspaces/RecallWorkspace1	
/Command/Workspaces/RecallWorkspace2 ..and so on up to 10	
/Command/General/TouchAndTurnChange	*Feedback when the user changes Touch N Turn control*
/Controller/QuickAssign	*Feedback for the quick assign state*

FAQ

Can I use a Waves Sound Grid Server with LiveProfessor?

To make this work, you'll require a sound grid audio interface that can transfer audio between the computer and the sound grid network.

The software-only solution with the audio driver, “SG Connect” will not work in practice as you get a 74ms delay.

SG Connect will only work in a typical DAW as a mixing tool, where everything is buffered anyway.

LiveProfessor users have used the DigiGrid MGO/MGB boxes for this.
Another limitation is that you can only run Waves plugins on the server.

For specific questions on Sound Grid and Sound Grid server please contact Waves Support.

Note for Apple Silicon

Note for Apple Silicon
LiveProfessor will run natively on the Apple Silicon CPU where available. If the plugin is incompatible with Apple Silicon, it will fail to load, as the plugin and the host (LiveProfessor) must run under the same CPU architecture.
MacOS should handle this converting on the fly for AU plugins, so you should not need Rosetta for these.
To use other non-compatible plugins and run under Rosetta, right-click (or ctrl+click) on the LiveProfessor application icon and select Get Info, then enable the Open using Rosetta option.

The entire application and all plugins will then run under Rosetta.

Dropouts when running in background on macOS

There have been issues with running LiveProfessor in the background on OSX.
The solution has been to disable App Nap on the system, as it interrupts audio when the latency is low.

To disable App Napp:

- Open the Terminal app, found in the `/Applications/Utilities/ folder`
- Copy and paste the following defaults string into the terminal, then hit the return key:
- `defaults write NSGlobalDomain NSAppSleepDisabled -bool YES`
- Close out of the Terminal and restart the Mac
  Please see this page for more info on disabling App Nap

Replacing A Missing Midi Device

If you initially create your project using a MIDI device and later replace it with a new one, you will receive an error message from LiveProfessor when loading the program, indicating that a

MIDI device is missing. This is because MIDI hardware is identified by its name.

To resolve this issue, open the MIDI Device window by navigating to `OPTIONS > AUDIO & MIDI OPTIONS > MIDI DEVICES`, and click the `HARDWARE DEVICE` column for the missing device. From there, choose the new hardware device you want to use.

No audio input on macOS

If you're using LiveProfessor on macOS and experience no audio input despite correct audio connections, it's likely due to macOS security policies.

When starting LiveProfessor you have to click “Yes” when macOS asks if it is OK to use the microphone.
By "Microphone", Apple means any sound input.

You can verify the setting in macOS under `SETTINGS > SECURITY SETTINGS > MICROPHONE`. You should see LiveProfessor in this list. If it is not already present, you should be able to include it there.