

# Inear Display Incipit

## User Guide

Version 1.5



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# Introduction

Thank you for using Incipit!

To get the most out of it please take some time to read this manual.

Incipit is a Delay audio plugin geared towards experimentation and sound design, but it can also be used as a « traditional » delay effect as most of the processing units can be excluded from the signal path to focus only the elements you need.

The essence of Incipit lies in its three-layer combination of pitch shifters and delays. These layers can be routed in either parallel or serial configurations, enhanced by a multimode filter on the main output. This foundational setup already offers a rich landscape for producing unique sounds. The plugin truly shines when you bring into play its four LFOs and three Macro modulators. These modulators can be intricately assigned to various effect parameters through a dynamic modulation matrix, allowing for intricate and creative sound manipulations.

Moreover, Incipit processes all modulations at an audio rate, enabling the effortless generation of complex tones.

For additional inspiration, Incipit is equipped with a comprehensive Randomizer module. This feature, complete with sub-groups and controllable randomization levels, offers endless possibilities for sound exploration.

And if you're looking to avoid the intricacies of sound design, Incipit has you covered with over 70 ready-to-use presets, ensuring you can enhance your audio effortlessly.

# Installation and First Launch

To use Incipit, you need a VST3 or Audio Unit host such as Ableton Live, Logic Pro, Cubase, Bitwig, Reaper, FL Studio, Renoise, etc...

- **macOS:** The installer will automatically place the AU and VST3 files in the appropriate folders.
- **Windows:** The installer will automatically place the VST3 in the appropriate folder.

Once you have installed the plugin, open your host and you will find Incipit in the effect plugins list.

➤ Incipit is only available as a 64 bit plugin.

➤ Incipit is a stereo-only plugin. It may not appear in the plugins list in some hosts if the selected track is a mono one.

➤ On macOS, if your preset folder is empty after the installation or if you cannot save presets, please refer to [this FAQ](#) to fix the folder permissions. The folder name is **Incipit\_1\_5** since version 1.5 of the plugin.

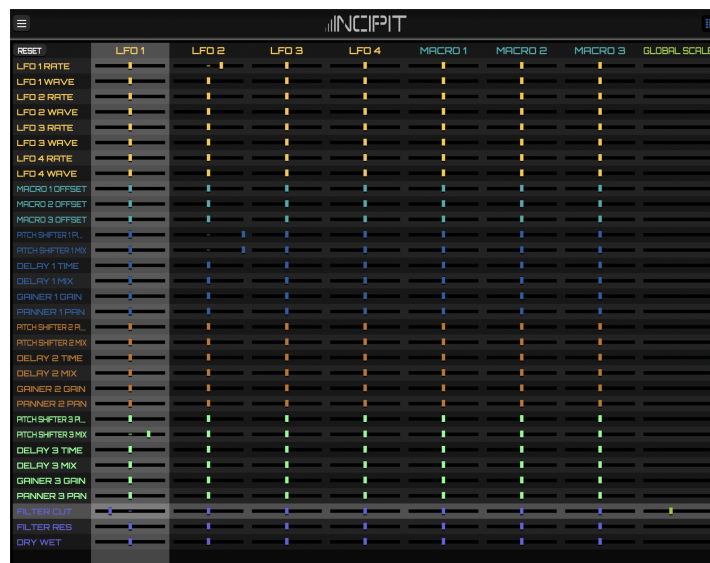
# Interface Overview

Incipit has two main views : the **CONTROLS** panel which is the one displayed by default and the **MODULATION MATRIX** panel. You can switch between the two panels by clicking the button located at the upper right corner of the plugin interface.

## Controls Panel



## Modulation Matrix

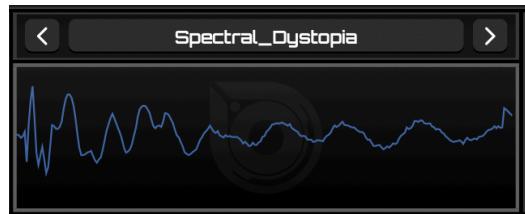


# Loading And Saving Presets

The large button in the middle of the panel (above the oscilloscope) displays the current preset name.

Clicking on this button will reveal a popup menu.

- At the top of this menu, the [SAVE PRESET...](#) option will open a file picker in the Incipit presets folder. Type in a preset name and save the file to keep a copy of the current settings on disk. If you want this preset to be available in the menu, you need to save it to the preset folder where the file picker opened. You can save it to a subfolder if you want it to appear in a preset bank in the menu (limitation: only the first level of subfolders will be searched for preset files).
- The second option ([SAVE STATE AS DEFAULT](#)) will create a default preset from the current settings, that will be used as the default state the next time you launch the plugin.
- Below this option, the menu displays a list of all preset banks and individual preset files found in the preset folder. Each bank has its own submenu with its presets listed. This bank system allows you to sort your presets by the categories of your choosing. To load a preset, simply click on its name in the menu.
- Incipit comes with several factory preset banks:
  - At the root level of the presets folder you can find template presets. These are starting points with Incipit set up to perform basic effects. Using them as a basis, you can add modulations and effect layers to craft your own patches.
  - [DUBS](#) : echo effect patches.
  - [MANGLERS](#) : patches to completely mutate and destroy the input signal.
  - [TONES](#) : patches that either add overtones to the sound, turn it into a texture, or add harmonic resonance to the input.



The navigation arrows on each side of this button let you cycle through all the presets referenced by the menu.

➤ To manage the presets, you need to access the presets directory in the Finder/Explorer by selecting the appropriate option in the Configuration menu. Then you can just move or delete the files you wish as you would do for any other files.

➤ Keep in mind that the results are highly input dependent. Some patches will play nicely with melodic sounds but will have little effect on drums, and the other way round.

# Effect Chains

The three effect chains are at the heart of Incipit. They act as three layers that operate on the input signal.

Each chain is made of three modules : a Pitch Shifter, a Delay and an Amplifier section. The signal flows through them in the same order as they appear on the panel.

➤ The following description applies to the three effect chains.

## Pitch Shifter

The Pitch Shifter effect alters the playback rate of the incoming audio resulting in a pitch transposition of the signal. It works by buffering its input using a delay line and mixing the outputs of several taps reading from the delay line at a slower or higher rate than the original signal rate.



➤ The Pitch Shifter in Incipit is geared towards the creation of interesting timbres and artifacts, not to give you a high fidelity transposed signal.

### Parameters :

- **PITCH** : changes the transposition amount of the signal. This amount is set in semitones in the range -24 to +24 (so two octaves down to two octaves up). - *available as a modulation target* -
- **SIZE** : the size of the delay line used by the Pitch Shifter. Be aware that tweaking this parameter can result in clicks so this should be more a one time setting than something you automate.
- **FEED** : defines the amount of the Pitch Shifter output signal that will be passed back to its input. It can result in very creative tones so do not hesitate to abuse it.
- **MIX** : a value of the 0% will bypass the Pitch Shifter, while a value of 100% will pass only the pitch shifted signal. Any value in between will blend the two signals. - *available as a modulation target* -

# Delay

The Delay effect buffers the incoming audio and plays it back with a time offset that is user defined. Using the **WIDE** toggle, you can alternate between regular processing and Ping-Pong mode. When the WIDE toggle is engaged (Ping-Pong mode) the delay will have a more pronounced stereo effect.



The Delay has two modes of operation :

- **Free Mode** : the delay time is set in milliseconds.
- **Host Synced** : the delay time is set in beat divisions according to the host tempo.

You can switch between these two modes using the **SYNC** toggle.

## Parameters :

- **TIME** : when in free mode, this parameter is controlled by a knob that operates on the range 1 millisecond up to 1 second. When the Sync toggle is engaged, the Time knob will be replaced by a menu where you can pick a beat division to which the delay time must be set. The divisions available go from 8 bars up to 1/128. - *available as a modulation target* -
- **FEED** : the amount of output of the Delay line that is passed back to its input, creating a more dense echo effect for long delay times as you increase the value, or more metallic sounding resonance for short delay times.
- **MIX** : crossfades between the Delay line input and its output. A value of the 0% will bypass the Delay effect, while a value of 100% will pass only the delayed signal. Any value in between will blend the two signals. - *available as a modulation target* -

➤ If the host tempo is too slow and the delay line cannot buffer enough audio, the delay time will be divided by two until it fits in the available memory.

➤ When you change the value of the Delay time, Incipit interpolates between the old value and the new value resulting in pitch change artifacts which can be used creatively in conjunction with the LFOs or automation.



# Amplifier

With this module you can tame the audio coming out of the chain and adjust its position in the stereo field.



## Parameters :

- **LEVEL** : adjusts the final amplitude of the chain. It operates in the range -70dB up to 0dB. Allows Amplitude Modulation effects in conjunction with the High Rate LFOs.  
- available as a modulation target -
- **PAN** : defines the position of the chain signal in the stereo field. A value of 50% does not alter the position. A value lower than 50% moves the signal to the left of the stereo field while a value above 50% moves it to the right of the stereo field. - available as a modulation target -

When the **filter routing toggle** is engaged, the output of the chain will go through the master filter, otherwise the output of the chain will go to the plugin output without being processed by the master filter.



➤ When the active button is off, the chain will be bypassed : its controls will be disabled and the chain will not be processed at all, saving some CPU cycles.



Located on the left of the bypass switch, on chain 2 and chain 3 you will find another switch with 2 modes :

- **Parallel processing** : this is the default mode. When set up in parallel, the chain will use the plugin input as its input. This was the only routing mode in Incipit versions prior to 1.2.
- **Serial processing** : this optional mode allows you to route the output of the previous chain to the input of the current chain. For example, if you activate this mode on chain 2, the output of chain 1 will no longer be routed to the filter but will instead be used as the input of chain 2.



You can experiment with various combinations, mixing serial and parallel processing.

➤ If the previous chain is bypassed and the current chain is set to serial mode, it will use the input of the first active chain placed before it in the signal path, or the plugin input if no other active chain is found.

➤ You can easily copy the settings of a chain to another one by clicking on the chain name to trigger a menu with copy and paste options. This operation copies the parameter values as well as the modulation routings.

# Output Section

This module, located on the left of the oscilloscope, sums the signals coming out of the 3 effect chains and process them with a multimode filter before mixing them with the original signal that was sent by the host to the plugin.



The Filter sub-module lets you alter the spectrum of the signal processed by the effect chains using a multimode filter that can be set to either Lowpass, Highpass, Bandpass or Notch.

➤ If the filter routing toggle of a chain is not engaged, the signal from the chain will not be processed by the filter.

The filter mode can be selected using the round display with an icon inside at the left border of the module.

To change the filter type, simply drag the icon with the mouse like you would do with the regular knobs found on the panel. The icon will change to indicate the currently selected mode :

- Lowpass
- Highpass
- Bandpass
- Notch

## Parameters :

- **CUTOFF** : lets you adjust the frequency at which the filter will start altering the sound. In Lowpass mode, the frequencies above the cutoff frequency are attenuated. In Highpass mode, the frequencies below the cutoff frequency are attenuated. In Bandpass mode, the frequencies above and below the cutoff frequency are attenuated. In Notch mode, the frequencies around the cutoff frequency are attenuated. - *available as a modulation target* -
- **RESONANCE** : the higher the resonance is, the more the frequencies near the cutoff frequency will be emphasized, adding some crunch to the sound and, at high values, adding an overtone to the sound. - *available as a modulation target* -

- **AMPLITUDE** : the value displayed at the top right corner of the output section is the output amplitude of the effect. You can drag the mouse over it to alter the gain like you would do with a regular knob. This control impacts only the WET portion of the Dry/Wet mix : it is applied to the output of the filter, not to the plugin input. - *available as a modulation target* -
- **DRY/WET MIX** : the signal coming out of the filter will be mixed with the original signal sent by the host to the plugin. The mix is controlled by this parameter. At 0% you will get only the original signal, while at 100% you will get only the processed signal. Any value in between will layer both signals. - *available as a modulation target* -

➤ An interesting manipulation to try with the filter is to set its resonance parameter to a high value, and modulate the cutoff parameter using a LFO running at a very high rate (using the 20+ HZ mode for the LFO rate).

➤ The DRY/WET parameter is available as a target in the modulation matrix. This can be very useful to create evolving sounds by morphing between the original and the processed signal.

# Understanding the Modulation System

To get the most out of the modulation matrix, you should be aware of the way the modulations are processed.

- Only the parameters found in the modulation matrix can be modulated.
- The modulations are applied at audio rate which requires more processing power than regular control rate modulations. To limit this impact, only the modulations that are actually in use are calculated, so the CPU usage will increase proportionally to the number of active modulations.

For a target parameter, the modulation signal consists of the sum of each source's current output scaled by the corresponding modulation matrix depth control.



- The bipolar behavior of the matrix depth controls will be explained later, in the Modulation Matrix section. For now we will assume that we are always working with the positive range (from the slider center to the slider right edge).

After the modulations for each source have been scaled and added together, the resulting signal is scaled by the rightmost slider value (**GLOBAL SCALE**).

All the modulation signals calculated by the modulation matrix are finally scaled by the global modulation depth parameter (the **MOD SCALE** knob found at the bottom left of the controls panel).



Once the modulation signal has been calculated by the modulation matrix as detailed above, it is then applied to the target parameter. The range on which the modulation acts is determined by the current value of the parameter. This value serves as the base offset for the modulation. The upper limit of the range is the maximum possible value for the parameter.

To illustrate how Incipit's modulation works, let's consider a straightforward example:

Suppose you want to modulate the pitch of the first chain's pitch shifter, aiming for a range from 0 to 12 semitones upward. Here's how you can achieve this:

- **Setting Up Modulation:** In the modulation matrix, assign LFO 1's output to the target pitch parameter, setting the depth to maximum. By default, with the matrix row's global scale at 100%, this modulation would affect a range of 0 to +24 semitones (since 24 semitones is the maximum for this parameter).
- **Adjusting the Range:** To align with our goal of reaching only +12 semitones, adjust the Global Scale parameter for the pitch in the modulation matrix. Position this slider around the midpoint.
- **Visual Confirmation:** After this adjustment, check the controls panel. You'll notice the arc around the pitch knob is now shorter, indicating a reduced modulation range — exactly what we aimed for.
- **Dynamic Modulation:** An interesting aspect to note is the dynamic nature of this modulation. If you alter the base value of the pitch parameter, the modulation range adjusts accordingly. This is because the modulation depth is proportional to the theoretical maximum range. Therefore:
  - If the base pitch value is lower, the maximum and scaled ranges increase.
  - If the base pitch value is higher, both ranges decrease proportionally.

➤ As noted previously, there is a bit more to the modulation matrix as the sliders allow setting an inverted range. Refer to the MODULATION MATRIX section for more details.

# Modulators

Incipit has two modulator types : the [LFOs](#) and the [MACROS](#). Their settings are set from the main controls panel, but to assign them you need to switch to the Modulation Matrix panel.

➤ The modulations routing is covered in the sections [UNDERSTANDING THE MODULATION SYSTEM](#) and [MODULATION MATRIX](#). Here we will focus on how to tweak the modulators themselves.

## Macro Modulators

These are very straightforward.

The Macros are the 3 knobs located at the bottom center of the Controls panel and labeled 1, 2 and 3. Once you have routed one of the 3 macros to one or more targets in the modulation matrix, moving one of the Macro knobs on the front panel will offset the value of the target parameters by the amount specified in the modulation matrix. For negative range amounts, please refer to the [MODULATION MATRIX](#) section.

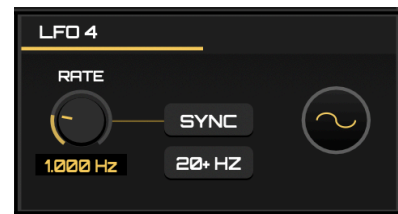


The macros are available as modulation targets in the matrix : you can modulate a macro with one or several LFOs for easy creative routings.

## LFO Modulators

The LFO modules are color coded in yellow and can be found on the Controls panel below the [GLOBAL](#) module. 4 LFOs are available and they all behave the same way and offer the same set of controls.

➤ The output of the LFOs is calculated and processed at audio rate which can get a little CPU heavy but allows very inspiring sonic manipulations.



There are two main modes for the LFOs :

- free running
- host synced

The only parameter independent of the mode is the wave shape.

The wave shape can be selected using the display with a waveform icon inside on the right side of the LFO module. This display acts like a regular knob, so you can click on it and drag the mouse to select another shape.

All other parameters of a LFO module are focused on the Rate (the time it takes for the LFO to perform one cycle). You can select the rate mode (free or host synced) by clicking the **SYNC** toggle at the center of the module. When this toggle is on, the LFO rate can be set in rhythmical divisions synchronized with the host clock. The divisions range goes from 8 bars to 1/128 and can be selected using the menu on the left side of the Sync toggle.

➤ To allow complex modulations, the phase of the LFO is not locked to the transport position of the host. Instead it uses its own internal clock, so it can possibly drift from the host clock over time. When you restart the playback from the start in your host, the LFOs phases will all be reset.

When the **SYNC** toggle is deactivated, the LFO module reveals a **RATE** knob and an additional toggle labeled '20+ Hz'.

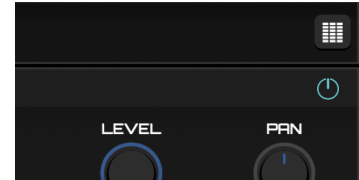
- With the '20+ Hz' toggle off, the RATE knob allows you to adjust the LFO rate within a traditional low frequency range, spanning from 0.001 Hz to 20 Hz. Opt for this setting when you aim to create a 'movement' effect in your target parameters.
- Activating the '20+ Hz' toggle extends the RATE knob's functionality, offering a broader frequency range from 20 Hz to 1000 Hz, entering the audio frequency spectrum. This mode is ideal for generating audible artifacts through modulation.

➤ You can try the 20+ Hz mode on parameters like the pitch shifter pitch to get FM like tones or the chain amplitude to get AM sounds.

➤ Using the 20+ Hz mode in conjunction with the LFOs cross modulations (modulating the rate of a LFO by another LFO) can lead to very interesting tones.

# Modulation Matrix

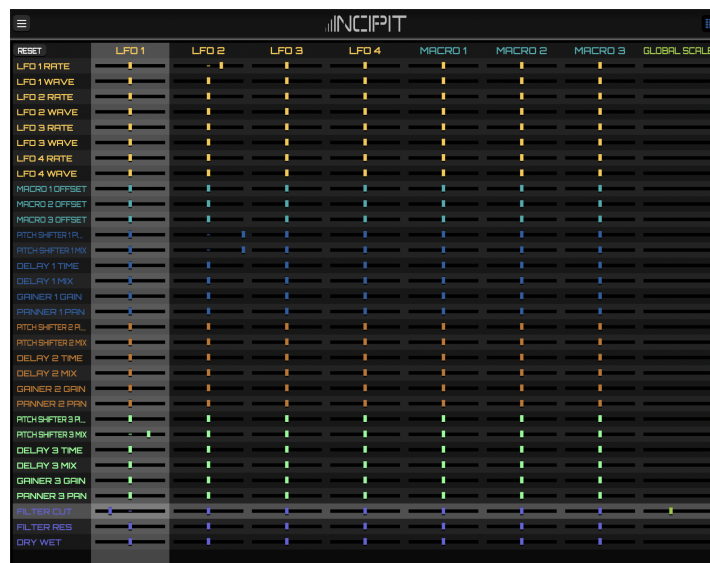
From the Controls panel (the default panel with the effects parameters), you can switch to the modulation matrix by clicking on the **MOD MATRIX** button at the top right. To switch back to the controls view, click on this button again.



➤ The logic of the modulation matrix has been detailed earlier in the **UNDERSTANDING THE MODULATION SYSTEM** section, so here we will only focus on the details left out in this previous section.

At first glance, the modulation matrix in Incipit may seem daunting, but several features are designed to help you quickly become proficient.

- **Color Coding for Ease of Use:** Each element within the matrix, including chains, LFOs, macros, and the global section, is color-coded. This coding mirrors the target parameters' colors in the Controls panel, simplifying the identification process. However, the **GLOBAL SCALE** column stands out with its unique color, indicating its distinct impact on modulations.
- **Interactive Navigation with Overlay Cross:** To help navigate the dense arrangement of sliders, an overlay cross appears when you hover your mouse over the matrix. This feature makes it effortless to identify both the modulation source and target corresponding to the slider under your pointer.
- **Reset Functionality:** For convenience, a **RESET** button is located at the top left corner of the matrix. Clicking this button will revert all sliders to their default positions, swiftly clearing all active modulations.





Delving deeper into modulation, it's important to note that the depth sliders for each source operate on a **bipolar** range. While we've discussed the effects of setting these sliders to positive values, moving them to the left, into the negative range, inversely modulates the output. This inversion means that the modulator output will be flipped, yet it will still operate within the same range.

Let's use another example to illustrate this: creating an alternating effect between pitch shifter and delay.

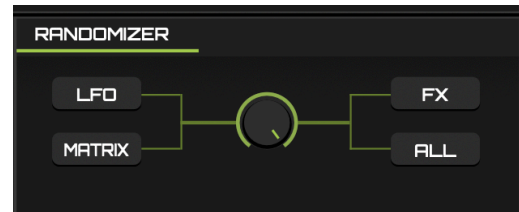
Imagine you have fine-tuned settings for the first chain's pitch shifter and delay, but you want to alternate between these effects, not layer them. You can achieve this by using LFO 1 to modulate both effects, but applying negative range modulation to one of them.

- Start by configuring LFO 1. Choose a Square wave shape, activate its sync button to align with the host BPM, and select a rate of 1 BAR.
- In Chain 1, set the mix levels for both the pitch shifter and delay to 0%. This ensures the modulations will have the maximum possible range of effect.
- Now, move to the Modulation Matrix. Assign LFO 1 to modulate both the pitch shifter and delay mix parameters. However, adjust the depth slider for the pitch shifter mix fully to the right (positive range), and for the delay mix, fully to the left (negative range).

When you play back your track, you'll notice the alternating effect in action. By setting the delay mix slider to the negative range, you've instructed it to use the same modulation as the pitch shifter mix but with an inverted output. This inversion results in the pitch shifter and delay alternating in their presence.

# Randomizer

Incipit includes a versatile randomizer section. Located at the right of the oscilloscope, it is composed of 4 buttons and a knob. The buttons correspond to the sections you can randomize. Clicking one of these buttons will set most of the parameters of the corresponding section to new random values.



- The **LFO** button acts on the parameters of the 4 LFO modules. It does not impact the SYNC setting of the LFOs.
- The **MATRIX** button acts on the mod matrix values. To avoid getting an insane chaotic state every time you click this button, it will only impact the values that have already been tweaked. So on a blank preset, it will do nothing. It will get interesting if you load/create a patch with several modulation routings active.
- The **FX** button acts on the parameters of the 3 effect chains. It does not impact the gain of the chain nor the SYNC setting of the delay sub-module.
- The **ALL** button is equivalent to clicking the 3 other randomizer buttons at the same time.

The knob at the center of the Randomizer section corresponds to the amount of randomization that will be applied the next time you click one of the randomizer buttons. Setting this knob to a low value will lead to new random values that are close to the values before clicking the button, whereas if this knob is set to high values, the parameters will be set to values that can possibly be far away from the original values.

➤ By loading a preset, tweaking the randomization amount, and selecting specific sections of the plugin to alter, you can easily dial in inspiring variations of that preset.

# Configuration Menu

This menu, accessed by clicking on the button in the top left corner of the panel, is where you can access various global functions/options of the plugin.



- **UNDO / REDO**: These options allow you to cancel previous parameter changes or to replay previously canceled parameter changes.
- **SCOPE**: Using this sub-menu, you can configure the color used to paint the waveform of the oscilloscope. By toggling on/off the **ENABLED** option, you can also deactivate the oscilloscope if you find it distracting.
- **INITIALIZE PARAMETERS**: Selecting this option will set all the parameters to their default value.
- **MIDI MAP**: Use this sub-menu to manage your MIDI CC mappings:
  - **CLEAR** cancels the current CC assignments.
  - **SAVE** lets you save the current set of mappings to your hard drive.
  - **LOAD** allows you to restore a set of mappings by picking a file on your hard drive. See the MIDI section for more details.
- **NEW RANDOM SEED**: If you think that the randomizer produces patches that are too similar to each other, try selecting this option to generate a new seed for the randomizer.
- **OPEN PRESETS DIRECTORY**: Select this option to open the Finder/Explorer window at the presets directory location.
- The last line of the configuration menu displays the **version** of the plugin that is currently running.

# MIDI Learn

If your host does not provide a built-in MIDI learning system, you can assign MIDI CCs to most of Incipit's parameters from the plugin panel.

➤ To do this, you need to route MIDI data to the plugin in your host. As Incipit is an effect plugin, most hosts will not pass it MIDI data by default. The manipulation to allow this depends on the host you are using, so you should refer to the host's documentation to find more information on how to configure this.

Once you have properly routed MIDI to the plugin, you can quickly assign a CC to one of Incipit's parameters by moving the desired control on your MIDI controller and then clicking on a knob/slider/button on the Incipit panel while maintaining the **ALT** key pressed. A menu will show up with the option '**ASSIGN TO LAST CC**'. Click on this option, and the MIDI control will now be mapped to the desired parameter.

➤ Nearly all the parameters available for automation in your host are also available for MIDI learning.

You can easily cancel an individual mapping by using the same **ALT-click** menu and selecting the second option: '**CLEAR CC MAPPING**'.

A set of all the current mappings can be saved in two ways:

- If you save the current project in your host, the mapping set will be saved along with the regular plugin data. This allows you to pick up where you left off without having to manually recall the mapping set.
- You can manually save a mapping set by going to the Config menu and selecting '**MIDI MAP → SAVE**'.

You can manually restore a mapping set by using the Config menu and selecting '**MIDI MAP → LOAD**'.

Finally, you can delete all the current CC mappings by using the Config menu and selecting '**MIDI MAP → CLEAR**'.

# Tips

- You can fine-tune the value of a knob or slider by maintaining the **COMMAND** (on macOS) or **CONTROL** (on Windows) key while dragging the mouse.
- To resize the plugin user interface, use the handle at the bottom right of the panel and drag your mouse until you reach the desired window size.
- Bypass any chain that is not in use by clicking the on/off icon in the top right corner of the chain to save some CPU cycles.
- You can easily go back to a clean state by selecting the appropriate option in the configuration menu.

# Credits

- **Development and Design:** Thomas Hennebert
- **Factory Presets:** Thomas Hennebert
- Special thanks to Nicholas Yochum and Nicolas Arrouët for their advice during the development of the plugin.