Expert Sleepers Augustus Loop v1.8.0 User Manual

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# Introduction



Augustus Loop is an emulation of a tape-based delay effect, with some extra features to facilitate its use as a looping device. (If you're unfamiliar with the concept/genre of looping, pay a visit to <a href="https://www.loopers-delight.com">www.loopers-delight.com</a>).

The key features of Augustus Loop that make it more than just a big delay effect are:

- Really long maximum delay (3600 seconds that's one hour).
- Tap length/tap record. You can set the loop time while recording your first phrase.
- Virtual tape. The delay simulates an old-style tape delay, meaning you can
  - change the tape speed (i.e. pitch up and down)
  - reverse the tape direction
  - stop the tape
  - smoothly change the delay time (as if changing the head gap on a tape delay).
- Multimode filter and saturation in the feedback loop.
- Four feedback taps (left to left, left to right, right to left and right to right) with independent delay time and feedback settings, for ping-pong effects, stereo delays etc.
- Pitch and filter LFOs.
- Loop length can be set in terms of the host's tempo setting.
- Output of MIDI clock messages to synchronise other applications to the plug-in.
- Automatic fades up and down to allow smooth transitions in your playing. It can even automatically clear the loop for you once it's faded out.

- Host transport-sync'd punch in and out when recording.
- 'Inertia free' mode suppresses the tape-like behaviour when changing delay times to allow seamless transitions between loop lengths. (This is also the route to the popular 'multiply' and 'divide' features found on some popular looping devices.)
- The 'Fx Loop' plug-in configuration allows you to route audio through other plug-ins either side of the 'virtual tape', allowing you to insert your own effects in the delay loop. So you can just substitute your own filtering/saturation for Augustus Loop's own, or get really creative by inserting any plug-in you like in the delay.

# **Installation**

#### Mac OS X, Audio Unit (AU)

One file (ExSlAugustusLoop.component) contains all variants of the plug-in.

Simply copy the file to the folder:

Library/Audio/Plug-Ins/Components

#### Mac OS X, VST

There is one file per plug-in configuration, named ExSlAugustusLoop.vst and ExSlAugustusLoop.vst.

Simply copy the files to the folder:

Library/Audio/Plug-Ins/VST

#### Windows (VST)

There is one file per plug-in configuration, named augustusloop.dll and augustusloop fxloop.dll.

Simply copy the files to your VST plug-ins folder.

# System Requirements

#### Mac OS X

Augustus Loop requires at least Mac OS X version 10.2.8. Version 10.4 or higher is recommended.

The plug-ins are Universal Binaries and so will work on PowerPC or Intel Macs.

The Audio Unit version will work in any Audio Unit host.

The VST version requires a "VST 2.4" compatible host.<sup>1</sup>

#### **Windows**

Augustus Loop has been developed and tested with Windows XP SP2. It may work with other versions of Windows (Vista included) but this is by no means guaranteed.

The plug-in requires a "VST 2.4" compatible host.

<sup>&</sup>lt;sup>1</sup> VST is a trademark of Steinberg Media Technologies GmbH.

# Registration

The downloadable version of Augustus Loop stops working after 15 minutes every time you use it. To stop this happening, you need to buy a registration.

You can buy a registration key online using a credit card or PayPal from the Expert Sleepers Licence Manager application. See <a href="here">here</a> for more information. Note that on Windows you need at least version 1.0.10 of the Licence Manager.

The e-commerce side of things is handled by <u>eSellerate</u>. If you have any security concerns, have a look at their website which is pretty informative.

Your registration key allows you to install Augustus Loop on up to 3 different computers (useful if for example you have a desktop computer in the studio and a laptop for live use).

You need an internet connection to activate the software, though not necessarily on the computer on which you want to use it.

# Quickstart

Augustus Loop is designed to be used as an insert effect, but you can use it as a send effect if you wish.

By default, the effect produces a straightforward one second delay, with fairly high feedback. Play a note through it - you should hear it echo once a second for quite some time.

The GUI consists of two sliders, a number of knobs and a smaller number of buttons.

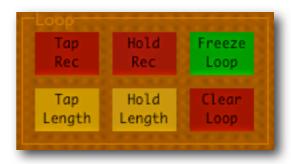
The shorter of the two sliders and the cluster of edit boxes around it control the delay time. By default the slider lets you adjust the delay time between zero and ten seconds. Try dragging the slider and see what happens.





The longer slider controls the speed of the virtual tape, or equivalently the pitch of the delayed material. Try playing some notes into the delay, and then adjusting the slider. You should hear the notes you played at a higher or lower pitch.

Four of the buttons let you set up a delay time without having to know what you want as a number of seconds. Try clicking on 'Tap Length', waiting a moment, and then clicking on it again. The delay time will change to the length of time between your two clicks. If you use 'Tap Rec' (short for 'Tap Record') the delayed material will be cleared out on the first click. This is useful when starting afresh on a new loop.



Other than that, just have a play with the controls, and then dig into the detailed reference section, below.

# **Using Augustus Loop**

## Using the controls

#### **Knobs**

Basic use of the knobs is to click on them and drag the mouse up and down. However you can obtain different results by holding keys as follows:

- Shift: Values change more slowly as you move the mouse.
- Command¹ (Mac OS X)/Alt (Windows): The knob assumes its default position.



#### **Sliders**

Sliders behave similarly.

- Shift: Values change more slowly as you move the mouse.
- Command : The slider assumes its default position.



#### **Dropdown menus**

Clicking on the menu displays the list of options. Move the mouse over the desired option and release the mouse to select it.



#### Value edit boxes

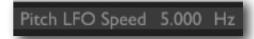
These boxes let you enter parameter values directly. Clicking on the value highlights it in green - you can then type the desired value using the keyboard. Press enter to finish and accept the new value.



While you're typing the value, the box goes red to indicate that the value you see has not yet been accepted.

#### Name/value display

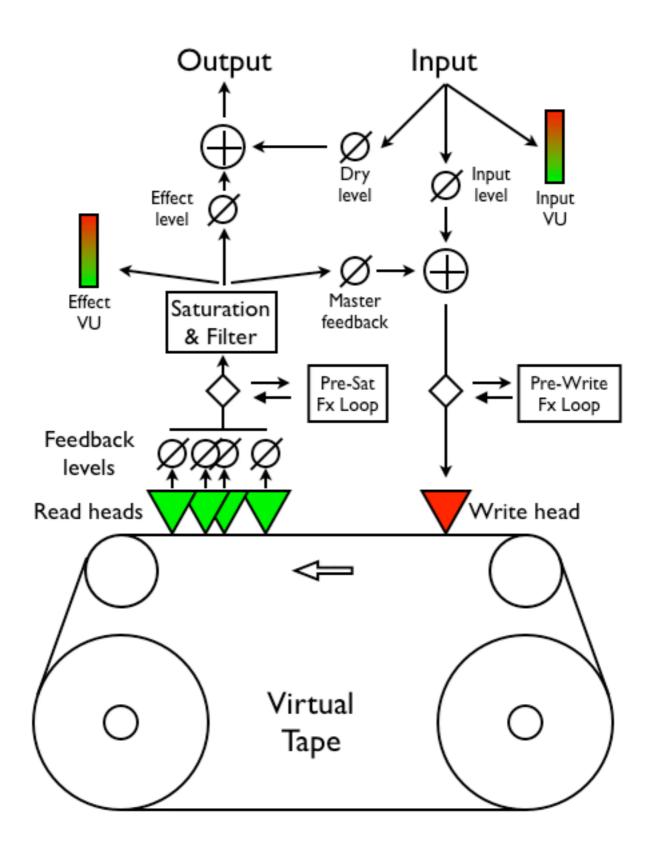
As you move the mouse around the interface, the name and current value of the control currently under the mouse is displayed in the top right of the window. This area also provides tooltips for buttons.



<sup>&</sup>lt;sup>1</sup> The 'Command' key is also known as the 'Apple' key - the one next to the spacebar.

## **Overview**

Here's a block diagram of the 'circuitry' of Augustus Loop. It can help to visualise this when understanding the effect of some settings, particularly the delay time settings.



## **Delay Time**

The delay time controls consist of a slider and four text boxes.

#### **Max Delay**

This field sets the maximum delay time the plug-in is capable of using. The highest value that



you can enter here is '3600', which is an hour (60 minutes times 60 seconds).

NB Changing this value causes the plug-in to reallocate its delay buffers. This can be a slow operation, especially if the value entered is large. So don't do it when there's actually audio flowing through the plug-in, as you'll most likely get an ugly stutter or momentary silence.

Also NB You'll want a lot of RAM to use high values for the delay time! At 44.1kHz, you'll need about 20MB per minute. If you ask for the maximum 3600 seconds, that's about 1.2GB of RAM you're asking the plug-in to use.

#### **Delay Time**

This field reflects the current delay time, in seconds. You can enter a value here directly, or use the delay slider or tap buttons to set it indirectly.

#### Min

This field sets the value corresponding to the leftmost position of the delay slider.

#### Max

This field sets the value corresponding to the rightmost position of the delay slider.

#### **Current delay time**

This field (immediately below the delay slider) shows one of the following:

- The current delay time in use, as set by the delay slider/text box.
- The current delay time in use, as set by the host tempo settings, if 'host tempo' is active.
- The time since tap recording began, during tap recording.

The time is shown in seconds and in bars/beats/480ths (if the host application supports the concept of bars/beats etc.).

#### **Delay Slider**

This slider lets you adjust the delay time between the two values set in 'Min' and 'Max'.

## **Delay Taps**

A total of nine knobs make up this section.

Eight of these are in pairs, giving you control of delay time and feedback level for each of the four taps.

#### **Delay Time**

Sets the delay time for the tap, expressed as a percentage of the master delay time set in the delay time section.



#### **Delay Level**

Sets the feedback level for the tap. This is the same as the actual output level of the tap in our architecture.

The four taps let you feedback sound between the two stereo channels. The left-toleft and right-to-right taps give you a normal



stereo delay. The left-to-right and right-to-left taps allow you create ping-pong style delays. By mixing all four, you can get some spacious stereo spread effects.

#### Master

The last control in this group, 'Feedback', sets the overall feedback level. Effectively it scales the four tap level controls.



#### **Pitch**



#### **Pitch**

This text field simply reflects the current pitch value. You can type numbers directly in here. The values represent semitones (12 semitones is an octave).

#### Pitch Slider

The slider controls the speed of the virtual tape, over a range of two octaves i.e. you can go from half-speed up to double-speed.

If you hold the Option (Mac OS X)/Ctrl (Windows) key while dragging the slider, it will only move to whole number values.

If you hold the Command (Mac OS X)/Alt (Windows) key and click on the slider, it will return to zero.

#### 'Piano Keys'

The many small buttons above and below the pitch slider are laid out in a black and white pattern like a piano keyboard. These buttons let you set the pitch slider directly to whole semitone values.

The upper set of buttons just change the pitch. The lower set of buttons also reverses the tape direction. NB This means that if the tape is already reversed, they will change the direction to forwards.

#### Reverse

Reverses the direction of the virtual tape.

Of itself, this is fairly straightforward. However it has a slightly non-intuitive relationship with the tap delay times. In order that changing the tape direction does not produce any nasty artefacts, the position of the tap tape heads has to remain constant. This means that their order is reversed.

Reverse

For example, say in the simplest case you have the L-L and R-R taps set to 100% time and level, and the other taps set to 0% level, with the master delay time set to 1s. In this scenario, reversing the tape gives you the same result, that is a delay of 1s.

In a more complex example, say the tap times are set to 100%, 75%, 50% and 25%. When the tape is reversed, the tap times become 100%, 125%, 150% and 175%. Note that the display of the tap times values does not change, only their internal interpretation.

Because in reverse delay times can reach 200%, you should try to make sure that the maximum (allocated) delay time is set to at least twice the actual delay time.

Note that the speed at which the tape reverses is controlled by the inertia setting (below).

#### **Stop**

Stops the virtual tape.



Note that the speed at which the tape stops, and starts, is controlled by the inertia setting (below).

#### LFO Speed

Controls the speed of the pitch LFO (in Hz).

#### **LFO Depth**

Controls the depth of the pitch LFO.



## **Filter**



#### Cutoff

Controls the filter cut-off frequency (in Hz).

#### Q

Controls the filter resonance.

#### **Type**

Allows you to smoothly change between the following filter types:

- Thru no filtering
- Low lowpass filter
- Band bandpass filter
- High highpass filter

#### **LFO Speed**

Controls the speed of the filter LFO (in Hz), which modulates the cutoff frequency.

#### **LFO Depth**

Controls the depth of the filter LFO. The value is a number of octaves to sweep the cutoff frequency by.

#### **Saturate**

The button below the 'Saturation' control (where the knob's label would normally be) turns the saturation effect on and off. NB when this is turned off, the signal in the loop can reach very high levels which may cause problems further down the line.

#### **Saturation**

Controls the level of saturation (overdrive) applied to the signal (before being fed into the filter).

#### **Shape**

Controls the shape of the saturation. At '1.0' the effect is that of soft saturation and clipping. At '0.0' the effect is of hard digital clipping. Note that at shape settings other than '0.0', some alteration is applied to the signal even if the Saturation level is zero.

## **Host Sync**

The 4 controls to the right of the delay slider controls allow you to sync the delay time to the tempo of the host application. (NB not all plug-in hosts provide tempo information.)

# 4.0 4.0 Host Tempo Triplet

#### **Host Tempo**

This button activates the host tempo mode.

#### **Beat Divisor & Triplet**

The 'Beat Divisor' drop-down menu lets you set the units in which you want to control the loop length. 1/4 corresponds to quarter notes, 1/8 to eighth notes etc. The 'Triplet' button turns the selected value to triplets.

#### **Beats**

This is where you set the number of beats you want for the loop length. NB this can be a non-integer value e.g. if the beat divisor is 1/8 then setting 'Beats' to 1.5 will give you a dotted eighth note loop length.

## **Clock Out**

These controls set how the plug-in generates MIDI clock out. NB these controls have no effect if the MIDI output has been disabled in the 'Prefs' dialogue.



The tempo of the clock signal produced is set by the

loop length and the beats settings in the host tempo section. The tempo is displayed in the top left corner of this control group.

In this version of the plug-in this functionality is tied to the 'Tap Record' feature. Essentially the clock is started and stopped by the end and beginning respectively of the recording. However using the three drop-down menus you can control exactly what MIDI messages are sent.

The 'Pause Clock' button lets you manually stop and resume the MIDI clock once it's running.

## **PingPong**

#### Mono-ize & Init Pan

These controls let you convert a stereo input signal into a mono one, which is useful when you have the delay taps configured as a ping-pong effect. 'Mono-ize' controls the degree to which the signal is converted to mono (from 0.0 meaning no conversion to 1.0 meaning fully mono). 'Init Pan' controls the position in the stereo field of the mono signal.



#### Levels

#### Dry

Controls the amount of the input signal that is fed directly to the plug-in's output.

The level meter to the left of the 'Dry' knob shows the level of the signal entering the plug-in.



The slider to the left of the meter sets the trigger level (see <u>below</u>). The small button at the bottom right of the meter increases the meter sensitivity, which can be useful when setting the trigger level on signals with a low noise floor.

#### **Effect**

Controls the amount of the effect signal that is output from the plug-in.

The level meter to the right of the 'Effect' knob shows the level of the signal after the filter section, but before the effect level has been applied (see the <u>overview diagram</u>).

#### Input

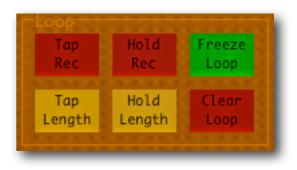
Controls the amount of the input signal that is fed into the delay loop.

## Loop

#### **Tap Rec**

When first clicked,

- silences the effect output
- sets the pitch to 0.0
- turns off the 'reverse' feature



When clicked again, sets the delay time to the interval between the two clicks, and immediately begins playback of the signal recorded in that time.

#### **Hold Rec**

Same as 'Tap Rec', except the delay time is set by the length of time the button is held down.

#### Tap Length & Hold Length

Similar to 'Tap Rec' and 'Hold Rec' except that the only effect is to change the delay time.

#### Freeze Loop

Similar in effect to setting the 'Input' control to zero (so no input signal is passed into the loop) and setting the feedback to 100% (so the loop doesn't decay). In fact though the behaviour is different because the loop is completely locked down so e.g. the filter is not applied in the feedback loop.

While the loop is locked you can still change the pitch, and the filter is applied to the loop output. The audio on the virtual tape remains unchanged however until the freeze is released.

Because in this mode the same bit of recorded audio is simply being replayed, you may notice slight discontinuities if you record your loop with the LFOs in operation.

You will also experience slight anomalies if the delay time is set to more than half the maximum (allocated) delay time (see also 'reverse' above).

#### **Clear Loop**

Wipes the virtual 'tape'. Because this can be a lengthy operation (especially when the max delay time is large) you should not expect to press this button and immediately be able to begin recording again. During the clear operation, the Clear Loop button remains lit, and the output level meters show a decreasing level to indicate progress.

#### Misc

#### **Fix Delay**

Normally when you change the pitch the delay time is changed as well. E.g. if you change the pitch an octave up, the delay time effectively halves. If you turn on 'Fix Delay', the delay time is changed automatically as the pitch changes, so the effective delay time remains the same as the pitch is altered.



#### **Trigger Arm**

Arms the auto-record trigger.



In this mode the plug-in will watch for an input signal, and when it detects one it will effectively press 'Tap Rec' on your behalf.

You can adjust the trigger level using the small slider to the left of the input level meter. The small button below and to the right of the input level meter controls the sensitivity of the meter. When pressed, the range of the trigger level slider matches that of the meter.

### **Fade**

The auto-fade controls allow you to smoothly and automatically fade the loop in and out, effectively turning the 'Effect' level control for you.



The 'Fade' button activates the fade operation. Press to fade out; press again to fade back in.

The 'Fade Override' button quickly completes the fade operation, in either direction.

The 'Fade In' and 'Fade Out' knobs set the corresponding fade times, in seconds (up to 30s).

The indicator to the left of the 'Fade' button shows the current level of the fade envelope (0.0 being fully faded out, 1.0 being fully faded in).

The menu below the indicator allows you to automatically clear the loop (i.e. as if you pressed the 'Clear Loop' button) when the fade out is complete. There are two settings (plus 'No Clear'):

- AutoClear simply activates loop clearing after a fade out.
- AutoClr2 activates loop clearing after a fade out, then does an instant fade-in after the loop is clear.

## Punch In/Out

These controls are used in conjunction with Tap Record, and affect the exact time that the start and end of recording take place. This can be useful when creating loops in sync with other material playing in the host application.



Note that most of these features rely on the host application's concept of tempo and meter. Some hosts may support none or only some of these features.

The indicator in the centre of the group turns red when a punch in or out is pending.

#### **Punch In Quantize (menu)**

When set to 'None', tap recording starts immediately you press the 'Tap Rec' button. Otherwise, the start of recording is delayed until a time quantized by the setting of this menu. E.g. if set to 1/4 the recording will not start until the next full beat (quarter note) arrives.

#### **Punch Out Quantize (menus)**

When set to 'None', tap recording ends immediately you press the 'Tap Rec' button. Otherwise the settings have the following meaning:

- Length recording ends automatically once the loop has reached the length it had before you started recording.
- LengthQ recording ends at a time quantized such that the loop has a length that is a multiple of the value selected. E.g. if you select a quantization of '1 Bar', when you press Tap Rec to stop recording, recording will continue until the loop length is a whole number of bars long.
- PositionQ similar to Punch In Quantize, in that the time of the end of recording is quantized. Please note the difference between quantizing the time of the beginning and end of recording and quantizing the length of the recording.

#### **Punch In and Out (buttons)**

These buttons allow the loop input level (the 'Input' knob) to be automatically set by the beginning and end of recording. The input level is set to 1.0 at the start of recording if Punch In is activated; it is set to 0.0 at the end of recording if Punch Out is activated.

## Inertia

#### Pitch Inertia

The 'Inertia' knob controls how long the tape speed takes to react to changes in pitch (including reversing and stopping the tape). Low inertia settings cause the pitch to change more quickly.



#### **Delay Inertia**

The 'Inertia Free' button controls how Augustus Loop behaves when a delay time is changed. (This includes a change to the overall delay time setting, or to one or more of the delay tap times.)

When the button is turned off, the behaviour is most like a tape delay, in that the play heads slide along the tape to their new positions. This will inevitably produce some odd sounds if the tape is not empty (which may of course be exactly what you want).

With the button on, the play heads move instantly, which is not how a physical tape delay works, but allows you to change the delay time without the unusual sounds.

In fact, it is a little more complex than just described - the play heads don't move instantly. Rather, new play heads are created at the new positions and the sound from these is faded in as the sounds from the old heads are faded out. The duration of this crossfade is controlled by the 'Inertia Fade' knob (set in milliseconds).

## **Digital Mode**

'Digital Mode' is activated using the button so labelled (in the Misc group).

In this mode, some of the tape simulation processing is disabled, allowing for perfectly clean, 'digital' looping, with no colouration/degradation of the sound as it loops.



Even with the digital mode button pressed, other settings have to be right for the mode to actually be active. The indicator above the button will turn green when digital mode is in fact active. These settings are as follows:

- The pitch control must be at zero (i.e. centred).
- The pitch LFO depth must be zero.

If delay inertia is active, digital mode will also be inactive for a while around delay time changes, while the delay times settle down.

It's worth noting that CPU load is fairly dramatically reduced in digital mode.

Also note that if you want a totally clean loop, you should also set the filter to 'Thru' and turn off the saturation. NB setting the saturation knob to zero is not the same as turning it off (by pressing the button).

# **Augustus Loop Fx Loop**

## Introduction

The normal Augustus Loop configuration is a stereo or mono-to-stereo plug-in. As of version 1.8.0, another configuration is also available; known as Augustus Loop Fx Loop, it's a 6-in 6-out plug-in.

The 6 inputs and output are arranged as 3 stereo pairs. (At this point it may help to refer to the <u>overview diagram</u> earlier in this manual.)

The first stereo pairs (inputs 1&2 and outputs 1&2) are the regular inputs and outputs that the stereo plug-in configuration has. The remaining pairs are "effects loops" (aka fx loops).

Inputs/outputs 3&4 are the "Pre-Write Fx Loop". This lets you process the audio just before it's written to the tape.

Inputs/outputs 5&6 are the "Pre-Sat Fx Loop". This lets you process the audio after it's been played back from the tape, just before it enters the saturation and filtering section.

## **Using the Fx Loops**

The fx loops are disabled by default. To access the controls to enable them, click on the little 'Fx Loops' button just above the Delay Time controls.

This hides the central Delay Time and Delay Level sections and replaces them with controls for the fx loops.

There are two identical sets of controls, one for each fx loop.

The 'Enable' button enables the fx loop i.e. audio will be sent out to and re-



R-R Time

Fx Loops

L-L Level

ceived from the relevant inputs and outputs only when this button is pressed.

The remaining two controls relate to the compensation for the fx loop latency in the loop delay time. When the audio is routed through the fx loops it usually encounters a slight delay, simply because of how digital audio applications work. This therefore affects the time between when a signal enters the plug-in, and when it (after coming off the tape)

leaves it - i.e. it affects the delay time. The compensation controls allow you to make up for this, so the delay time you specify is the one you actually get.

Note this is not the same as the latency usually meant by "plug-in latency" in DAWs, which refers to the internal latency introduced by a given plug-in. In the case of Augustus Loop's fx loops, the latency is introduced by the host's buffering of plug-in inputs and outputs. This latency will typically be small, and is not worth worrying about overly unless you need exact tempo-synced delay times. Often it is an amount that you can specify in your DAW - e.g. in Ableton Live, the setting is under the CPU section of the Preferences.

The menu to the right of the Enable button offers three choices for the latency compensation:

- Auto: The plug-in uses a latency figure guessed from information supplied by the host app.
- Off: No latency compensation is applied.
- Manual: You can specify exactly the compensation you want via the 'Latency' knob.

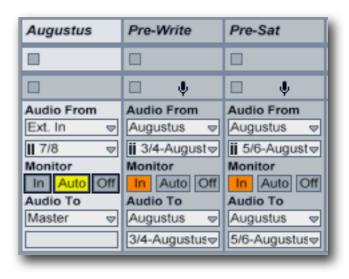
## Setting up your DAW for Fx Loops

#### **Ableton Live**

The image to the right shows how to configure the routing in Ableton Live to use Augustus Loop's fx loops.

The track named 'Augustus' is the track on which the plug-in is inserted. The regular inputs and outputs (1&2) operate on this track.

The other two tracks are the fx loop tracks. By inserting plug-ins onto these tracks, you can apply processing to the audio within Augustus Loop.



## **Current Limitations**

Unfortunately using the fx loops with the following features will most likely result in audio glitches, unless the input to the plug-in is silence:

- Reverse
- Tap Record

These issues may be resolvable in a future update. As ever, the more people we hear from who say this is important to them, the higher priority will be assigned to it.

# **Preferences**

Pressing the 'Prefs' button brings up a dialogue where various preferences are set. These global settings are shared by all instances of Augustus Loop, and are not stored with presets.



The top section shows the product version. The Windows version also shows which SSE variant has been detected (there are optimised versions of the core processing routines for systems with SSE2).

The central section will show your serial number once you've bought a registration.

#### MIDI In

This menu controls how the plug-in responds to incoming MIDI CC messages (see <u>below</u>).

## **MIDI** output

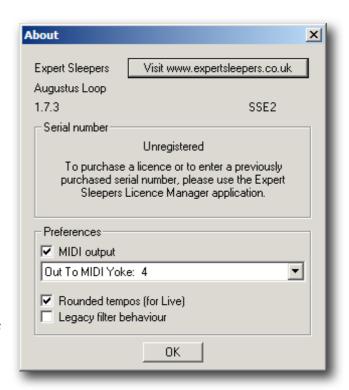
This checkbox enables or disables the output of MIDI clock messages (see <u>above</u>).

The Windows version also has a drop-down menu for choosing which MIDI output port to send the MIDI clock on.

# Rounded tempos (for Live)

Essentially this is a workaround for a limitation in Ableton Live, in that Live reports rounded tempo values to hosted plug-ins when externally synced by MIDI clock. For example, if Live receives clocks at a tempo of 114.6bpm, it will tell its hosted plug-ins that the tempo is 115bpm. Why it does this remains something of a mystery.





This is a problem if you are using multiple instances of Augustus Loop in a Live song, with one AL set to generate MIDI clock, Live synced to that clock, and the other ALs set to 'Host Tempo' mode. When you use Tap Record to record your loop in the master AL, the other ALs will be given a slightly wrong tempo by Live and the loops will be out of sync.

Turning on 'rounded tempo' in AL solves this problem by only ever generating MIDI clock at rounded values. The downside is that the loop length will not be quite what you wanted, but it may be good enough, depending largely on your musical style and whether you record the first loop 'silent' simply to set the tempo.

With this mode turned on, when you use Tap Record the loop end will be slightly later than when you tap to close the loop. E.g. if you record a loop that would have a tempo of 122.3bpm, AL actually keeps recording until the loop length matches a tempo of 122bpm.

## Legacy filter behaviour

This checkbox causes the filter to revert to its behaviour in versions of the plug-in before 1.7.0 (see the <u>version history</u>).

## MIDI control

#### NB this section applies to the Audio Unit version only.

Most of Augustus Loop's controls can be controlled via MIDI.

There is a preference setting in the 'Prefs' dialog that controls whether Augustus Loop responds to MIDI events on all channels, or just on channels 1&2.

In the latter case, the plug-in responds to MIDI controller messages on channel 1 (see table below) and to note on messages (to alter the pitch setting) on channel 2. This can make it more convenient to play a soft-synth and control Augustus Loop from the same keyboard.

Some parameters are controlled by NRPN messages rather than CC messages because they require the extra (14 bit) resolution. NB the 'Delay Slider' has both a CC and NRPN assigned to it.

#### CC messages

5 Master Feedback

12 Delay Slider

14 Mono-ize Input

15 Initial Pan

18 Pitch

19 Pitch Inertia

20 Dry Level

21 Effect Level

22 Input Level

23 L-L Time

24 L-R Time

25 R-L Time

26 R-R Time

27 Filter LFO Speed

28 Filter LFO Depth

29 Pitch LFO Depth

31 Host Tempo

32 Triplet

33 Beats

34 Beat Divisor

70 R-L Feedback

71 Filter O

72 R-R Feedback

73 L-L Feedback

74 Filter Cutoff

75 L-R Feedback

76 Pitch LFO Speed

78 Trigger Arm

79 Saturation

#### 80 Saturation Shape

81 Saturation On/Off

85 Filter Type

86 Freeze Loop

87 Tap Length

or tup Length

88 Pause Clock

89 Tape Reverse

92 Tap Record

96 Fade In Time

97 Fade Out Time

100 Clear Loop

101 Punch In Quantize

102 Punch Out Quantize

103 Punch Out Type

104 Punch In Set Input Level

105 Punch Out Set Input Level

106 Auto Clear After Fade

107 Fade

108 Fade Override

109 Delay Inertia Mode

110 Delay Inertia Fade Time

111 Digital Mode

112 Tape Stop

#### **NRPN** messages

128 Delay Slider Min

129 Delay Slider Max

130 Master Delay Time

131 Delay Slider

# **Version History**

#### v1.8.0 5th June 2008

- New 6-in 6-out configuration of the plug-in, allowing audio to be routed through external processing either side of the virtual tape.
- Fixed an issue that could cause a crash in Logic 8 when opening a song containing multiple instances of Augustus Loop with their GUIs open.

#### v1.7.3, 24th March 2008

• (Windows version only updated) Plug-in no longer requires SSE2, though it is still optimised for systems that have it.

#### v1.7.2, 18th March 2008

- Mac OS X versions only updated.
- Fixed a problem where the VST version would crash if the AU version were not also installed.
- Further enhanced the plug-ins' resilience to font installation issues.

#### v1.7.1, 17th March 2008

• (Mac OS X versions only) Fixed a possible crash if a system font is not installed in the expected location.

#### v1.7.0, 14th March 2008

- First Windows version.
- First Mac OS X VST version.
- New GUI.
- Fixed various filter problems. In particular, the filter cutoff was being limited to about 2kHz - now the full range up to 8kHz is usable. Therefore, this version may sound different to previous versions at the same settings. A preferences setting is provided to revert to the previous behaviour, which may be useful if you have to revisit an old mix after upgrading.
- Added 'Tape Stop' feature.

#### v1.6.5, 30th September 2007

• Now responds properly to AudioUnitReset(), so in e.g. Logic the delay buffer will be cleared when song playback is started etc.

#### v1.6.3, 31st October 2006

Added rounded tempos option.

#### v1.6.2, 2nd July 2006

Fixed a GUI issue with certain hosts (notably Plogue Bidule on Intel).

#### v1.6.1, 20th March 2006

• First 'Universal Binary' version for Intel and PowerPC Macs.

#### v1.6.0, 9th January 2006

- Added 'digital mode'.
- Fixed bug which could result in orphaned threads being created.

#### v1.5.1, 5th October 2005

• Added wider range of values for punch in/out drop-down menus.

#### v1.5.0, 29th August 2005

• Added new 'delay intertia-free' mode.

#### v1.4.3, 13th July 2005

- Tempo is calculated and displayed even if MIDI clock output is disabled.
- MIDI clock generation is completely rewritten internally, and is generally more compatible with host apps.
- Once tap recording has been performed, changing the beats/beat divisor/triplet controls changes the delay time accordingly to maintain the tempo calculated at the end of tap recording.

#### v1.4.2, 11th June 2005

• Fixed some potential issues with Logic's AU validation.

#### v1.4.1, 13th March 2005

Added MIDI control of delay time.

#### v1.4.0, 27th February 2005

- Added 'clear loop' function to wipe the tape.
- Added auto fade-in/out envelope, with override and optional auto-clear of loop on fade-out completion.
- Current loop length now displayed in host's bar/beat units as well as seconds.
- Added auto punch in/out, quantized to loop length (seconds or host units) or host transport position.
- Loop input level can be controlled by punch in/out.
- Extensive CPU efficiency improvements.
- Now correctly reports silent output to downstream processing, resulting in further efficiency improvements in hosts that support this feature.

- Fixed potential crash when using Freeze Loop and Host Tempo.
- Improved behaviour of Freeze Loop in conjunction with Reverse.
- Maximum delay time is now limited according to installed system RAM.

#### v1.2.0, 3rd January 2005

- MIDI output ports now uniquely named.
- Added option to disable MIDI output ports.
- Added option for MIDI receive channel.
- Added display of current loop length (when sync'd) and while using 'tap record'.
- Added saturation shape control.
- CPU efficiency improvements.

#### v1.1.0, 30th August 2004

- Added host tempo mode.
- Added ability to output MIDI clock messages.
- Added audio triggered recording.
- 'Tap tempo' renamed 'Tap length'.
- Fixed issue with 48kHz operation.
- Fixed behaviour of MIDI remote control of pitch parameter.
- Fixed problem with Freeze Loop button staying on after tap record.
- Rebuilt with Core Audio SDK 1.3.1.

#### v1.0, 5th June 2004

First release.

# **Release Notes**

## Issues with keyboard input

There are known issues with some hosts, in particular Ableton Live, and all plug-ins that require keyboard input. (Augustus Loop is such a plug-in.) Ableton have done something to address this issue in Live 7.0.2.

#### See

- <a href="http://www.ableton.com/forum/viewtopic.php?t=84434">http://www.ableton.com/forum/viewtopic.php?t=84434</a>
- <a href="http://www.ableton.com/pages/faq/options\_text">http://www.ableton.com/pages/faq/options\_text</a>

Basically you can enable keyboard presses in plug-ins by creating or editing a file called

Options.txt

which lives here:

C:\Documents and Settings\<username>\Application Data\Ableton\Live
7.0.2\Preferences

The file needs to contain the line:

-\_EnsureKeyMessagesForPlugins

# **Contact**

The Expert Sleepers website is here:

http://www.expert-sleepers.co.uk/

Or you can email

in fo@expertsleepers.co.uk

Or you can use the forum, which is here: <a href="http://www.kvraudio.com/forum/viewforum.php?f=85">http://www.kvraudio.com/forum/viewforum.php?f=85</a>