Getting Started



The CAT was a fun and unique duophonic analog synthesizer produced by the innovative New York-based Octave Electronics Inc. (later Octave-Plateau) from 1976 to 1981. We at Cherry Audio are excited that the Octave Cat virtual instrument has been created in collaboration with the original designer and owner of Octave Electronics, Carmine Bonanno. Thanks Carmine!

The original CAT was a fat-sounding, flexible, and sometimes wild-sounding synth with mono- and duo-phonic modes, and a fiercely aggressive and resonant filter circuit (which we've very accurately reproduced!). Its mod figuration enabled screaming audio-range oscillator cross mod, as well as wild oscillator sync with two modes.

The Cherry Audio Octave Cat expands upon the original with up to 16-voice polyphony, and a feature-packed "page two" with distortion, phaser, flanger/chorus, echo, and reverb effects, as well as a super-flexible dual eight-step sequencer capable of modulating numerous Octave Cat parameters.

We hope you'll enjoy this deceptively flexible and unique instrument as much as we do!

Manual Layout

This manual will detail each section of the Octave Cat; the order of the chapters follows the signal flow (as opposed to the physical layout of the front panel).

Technical Assistance

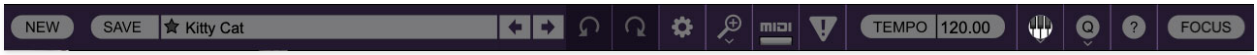
Cherry Audio's unique online store and automatic updating should make operation a smooth experience, but if you run into any issues or have questions, you can discuss issues online at the Cherry Audio forums at:

https://forums.cherryaudio.com/

... or you can communicate directly with one of our outgoing and friendly tech support staff at:

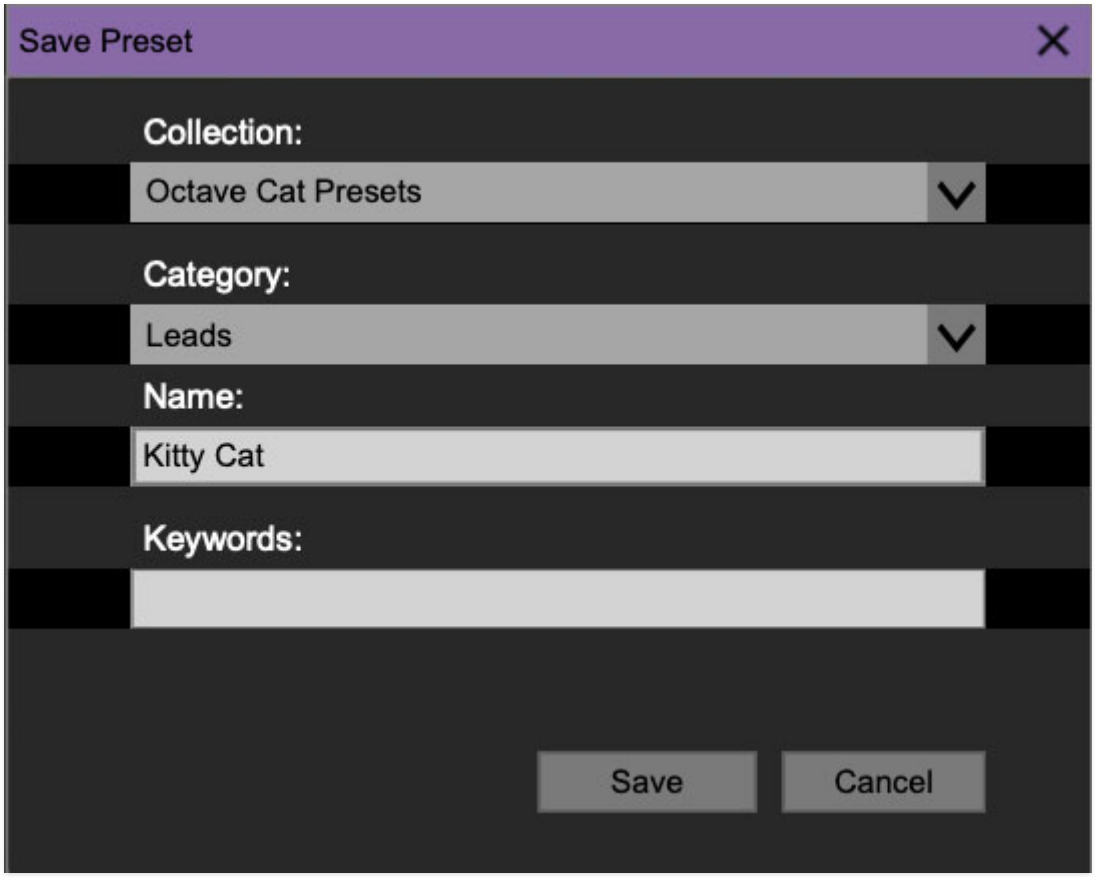
https://cherryaudio.kayako.com/

Top Toolbar and Preset Browser



The purple strip at the top of the Octave Cat interface is where you'll load, save, and create sound presets. It also contains utility functions such as undo/redo, UI zoom and *Focus* controls, under-the-hood settings, and more. Let's go over them:

New- Opens a new blank patch preset. If an unsaved patch is currently open or you've modified an existing saved patch, a dialog asks if you'd like to save the patch in its current state. This greatly reduces the possibility of losing an edited unsaved patch.

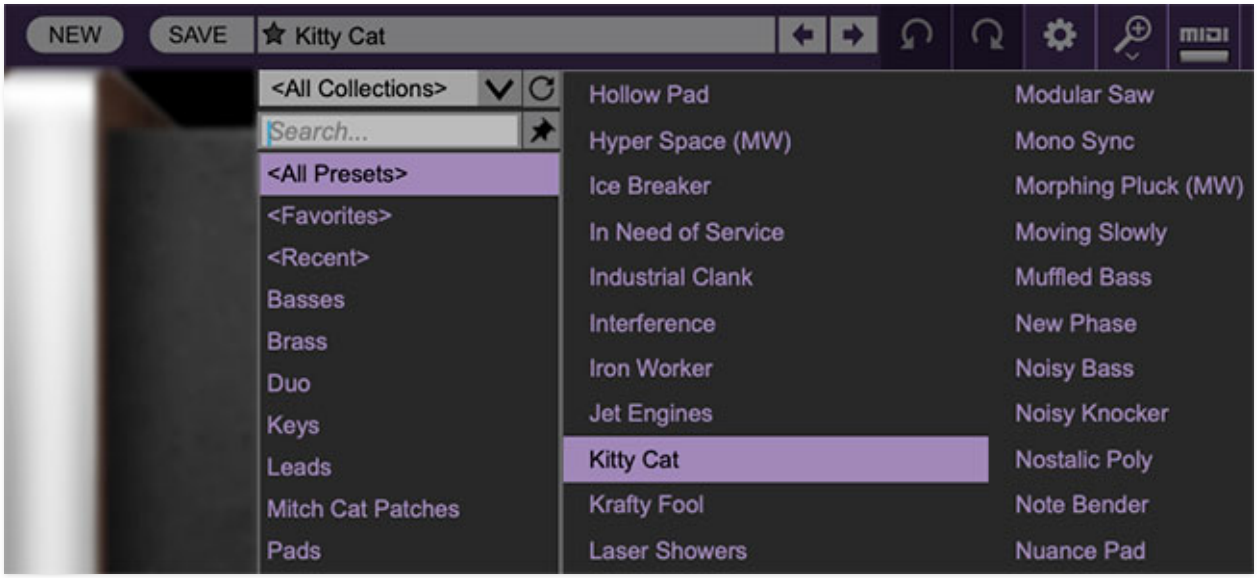


Save- Use this to save patches. There are a couple of levels of hierarchy:

- **Collection**- This is the top level of organization, and contains entire "sets" of presets. The *Cat Presets* are the main included collection. We also include a *User Presets Collection* for storing your own presets, but

you're free to create your own collections. To create a new collections, click in the *Collection* text field (where it says *User Presets* above) and type a name. User-created sounds can be freely saved to any collection; we like to keep 'em separated for organizational purposes.

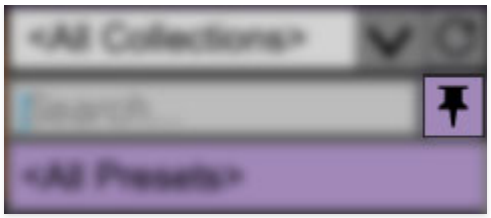
- **Categories**- Within each *Collection* are a number of sound categories. As with collections, you're free to create as many categories as you like. To create a category, click in the *Category* text field of the *Save* dialog window and type a new category name.
- **Patch**- A patch is an individual sound. To save a patch, simply type the name in the *Name* field and click *Save*.
- **Keywords**- You can add descriptive words such as "bass," "lead," "spaceship," etc., to patches to make them appear when terms are typed in the *Search* field. Use commas to separate multiple keyword entries.



Browsing Patches- Patches can be browsed by clicking the *<Select Preset>* field. To select a preset collection, click in the area that says *<All Collections>* or on the downward-facing arrow next to it.

Clicking on the left-side categories narrows down which patches are displayed.

- **<All Presets>** will show presets from all collections and categories.
- **<Recent>** displays recently used presets.
- **Refresh**- This is the circular arrow button to the right of the downward arrow; clicking this checks the Cherry Audio server for new or updated presets.



Pin- Clicking the push-pin icon locks the patch selection list open, allowing fast and easy browsing and auditioning of patches. Click the icon again to disable pin mode. when in pin mode, the up and down arrow keys can be used to select patches.

Preset Step Back/Forward horizontal arrows- These step to the previous or next preset. macOS [⌘+left/right arrow key] or Windows [CTRL+left/right arrow key] will navigate through presets back and forth in the currently selected collection/category.

Undo/Redo circular arrows- These undo or redo the last action. It remembers many steps, so if you really mucked something up, keep on clickin'...

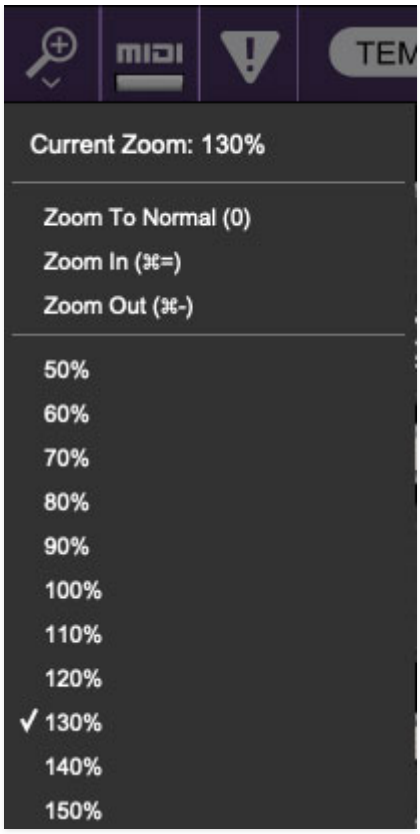
Settings- This is where user preferences for user interface, audio interfaces, user account, and more are configured. See the **Settings** section for full information.

Importing Presets with drag-and-drop

Presets can be imported singly or en masse (as a single compressed ZIP file) simply by dragging and dropping from the desktop anywhere on the user interface.

If a single .*preset file is dragged and dropped, the sound is immediately loaded and the standard Save Preset dialog appears; this lets you save the sound to the instrument's preset browser. Note that you don't have to save the sound to preset browser; if you just want to hear and play the sound, click the Cancel button in the Save Preset dialog - the sound will still be loaded.

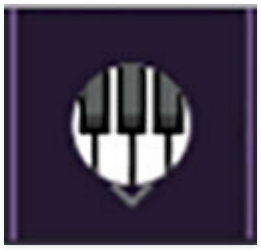
Compressed zip files containing multiple sounds can also be drag and dropped onto the UI. This works the same as with single sounds, but instead of the Save Preset dialog, you'll see the Import Preset Collection dialog. The presets will be added as a new collection and available in the categories for which they were tagged.



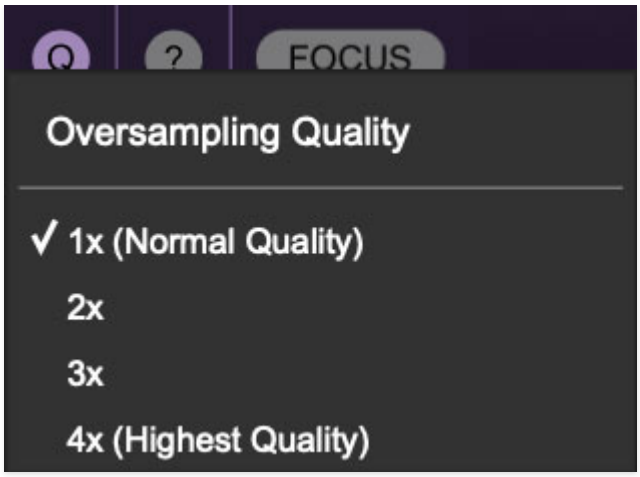
Zoom Magnifying Glass- Click to resize the Octave Cat interface. Selecting *100%* returns the user interface to native size.

MIDI Tab- Opens the MIDI controllers tab for configuring internal and hardware MIDI controls. See the **MIDI Controllers Setup and MIDI Tab** section for full information.

! (MIDI Panic) - Click to send an all-notes-off message in case of, "why won't this thing stop making noise?!?" stuck-note incidents.



QWERTY Musical Typing Keyboard- Opens an onscreen keyboard allowing a standard QWERTY computer keyboard to be used for playing music notes. For more information, see **QWERTY Musical Typing Keyboard (MTK)** section.



Q Oversampling Quality - The Q button sets Octave Cat's internal oversampling rate; the higher the setting, the better audio fidelity will be, with the caveat that more computer processing power will be required.

Internal processing can be set to *1x* (same rate as the current sample rate of the host DAW or in the *Settings>Audio/MIDI* window for the standalone version) or to *2x*, *3x*, or *4x* the current sample rate. The sample rate is downsampled at the instrument output stage to match the current host sample rate.

For example, if the current DAW/instrument sample rate setting is 48 kHz, and oversampling is set to 2x, Octave Cat's internal processing runs at 96 kHz, and is then reduced back to 48kHz at the output stage.

If the current DAW/instrument sample rate setting is 192 kHz and oversampling is set to 4x, Octave Cat's internal processing will run at 768 kHz, and you will very briefly hear the most ameeeezing synthesizer sound quality ever experienced by mankind before your computer instantaneously explodes in a fiery, white-hot supernova blaze. Ok, maybe not.



When oversampling is set to any multiple greater than *1x*, the *Q* button glows yellow.



Help- Clicking this launches your web browser and opens this help document. (Confusing circular logic thing there, amirightpeople?)



The Cat by Octave badge - Clicking this displays “about” information, and shows the version number and current registered user ID.

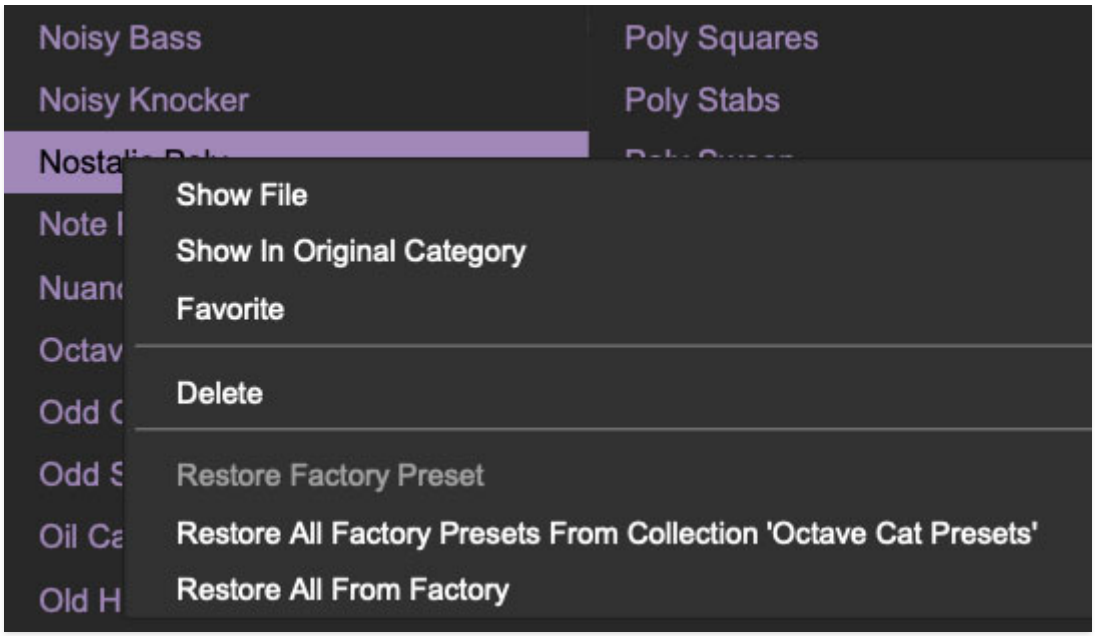
Focus Button



If you're using a tiny laptop, the user interface can potentially be hard to see. With this in mind, the *Focus* button conveniently blows up Octave Cat's view to roughly twice its normal size within the current window size. Unlike the *Zoom* "magnifying glass" function, *Focus* doesn't affect the current window size. By default, the patch panel section fills the current window, but the view can be scrolled vertically and horizontally with a mouse wheel, track pad, or Apple Mighty Mouse finger-scrolling. Or if you're the last person on earth still using a single-button mouse, scroll bars will appear at the window edges when in *Focus* mode. (Guess what? YOU'VE GOT MAIL!)

Using *Focus* mode couldn't be easier - just click the *Focus* button the top menu bar. To return to standard view, click *Reset*. **There's also a superfast key shortcut** - on Mac, hold the ⌘ [COMMAND] key and click the mouse; in Windows, hold the [OPTION] key and click the mouse. Focus can be reset with the same key shortcuts.

Preset List Right-Click Functions



Show File- This displays the selected preset in the Mac or Windows folder containing it. This is useful for backing up or sending a preset file to another user.

Show In Original Category- Selects the preset within its category, i.e. the category will highlight in the left preset menu. The *Show In Original Category* command only displays if the preset was selected within the <*All Presets*>, <*Favorites*>, or <*Recent*> categories.

Favorites- Favorited presets will show in when the <*Favorites*> category is selected. A star will display next to the preset name. Right-click on the preset and reselect *Favorite* to un-favorite it. (Or just ghost it if you don't do the confrontation thing.)

Delete- Deletes the selected preset.

Restore Factory Preset- If one of the factory (i.e. not user) patches is edited and saved, selecting this command restores the patch to its unaltered "factory" setting. This menu will be grayed-out for user bank patches.

Restore All Factory Presets From 'Cat Presets'- If any patches from the "factory" Cat bank are edited and saved, selecting this command restores *all* of them to their unaltered "factory" setting.

Restore All From Factory- If any patches from the "factory" banks are edited and saved, selecting this command restores *all* of them to their unaltered "factory" setting. At the time of writing, the Cat bank mentioned above is the only factory bank, so this function and the *Restore All Factory Presets From 'Cat Presets'* above have the same effect.

Panel View Mode

The original CAT was a straightforward one-knob/slider-per-function affair. The Cherry Audio Octave Cat adds an extensive array of effects as well as a dual eight-step sequencer. Instead of cramming all of the controls onto the panel, we've divided the main synthesis controls and effects+sequencer controls over two panel view modes. **The two views are easily switched by clicking the *Main / FX/Seq* button at the the top right**. The white section of the selector button indicates the current panel view mode.

Main Controls view:



FX+Sequencer view:



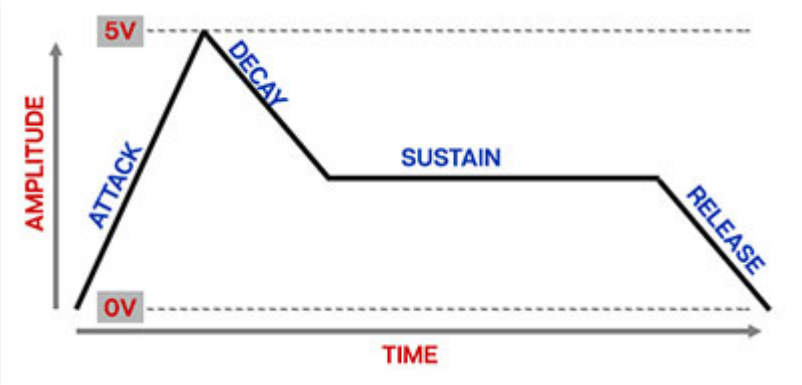
Switching the panel view mode has no effect on settings or sound. The current view mode is saved with the preset.

Transient Generators

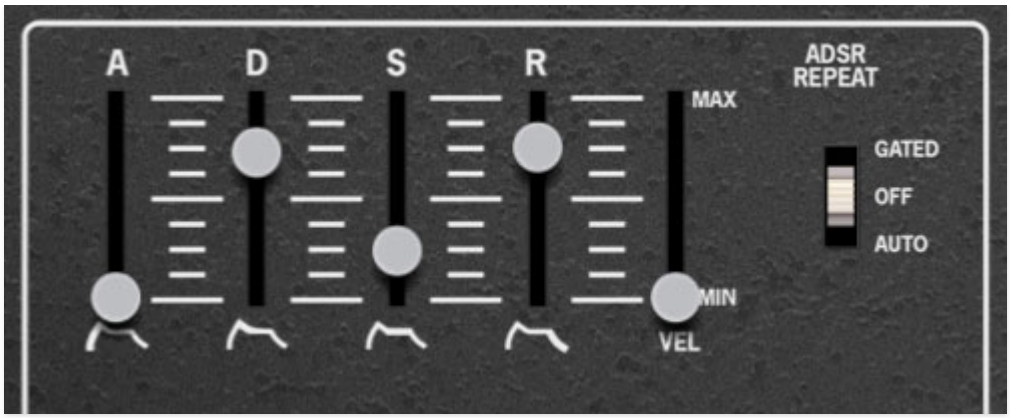
The Transient Generators section includes a two envelope generators - a standard ADSR (attack/decay/sustain/release), and an AR (attack/release).

ADSR Envelope Generator

If you're not familiar with how envelope generators work, following is a nerdy explanation of how an ADSR works... it's a real conversation starter at parties!



When Cat sees a gate voltage from a note, the envelope generator outputs a dynamically changing voltage, according to the settings of its four stages. The attack stage defines how long it takes for the output voltage to rise from 0 to 5 volts. Once the attack stage reaches 5V, it moves to the decay phase, which defines how long it takes to fall from 5V to the setting of the Sustain phase. Unlike the attack, decay, and release phases, which define times, sustain simply sets the held voltage level following the attack and decay phases - this equates to the envelope output level while holding down a key. Finally, the release slider defines the the length of time it takes for the voltage to fall back to 0V when the gate input voltage is removed, i.e. when the key is released.



A (Attack)- Defines the length of time for voltage to rise from 0V to 5V when a key is played.

D (Decay)- Defines the length of time for voltage to fall from the attack stage 5V peak to sustain stage setting.

S (Sustain)- Sets the voltage level following attack and decay phases while a note is held.

R (Release)- Defines the length of time for voltage to fall from sustain level to 0V when a key is released.

Vel (Velocity)- Sets the degree to which keyboard velocity affects overall envelope voltage output. At *Min* setting, velocity has no effect on the envelope. As the slider is set to higher values, playing the keyboard lightly decreases the overall envelope output. In a way, the *Vel* slider works "backwards," because it creates increasingly lower voltages as its setting is increased when playing lightly.

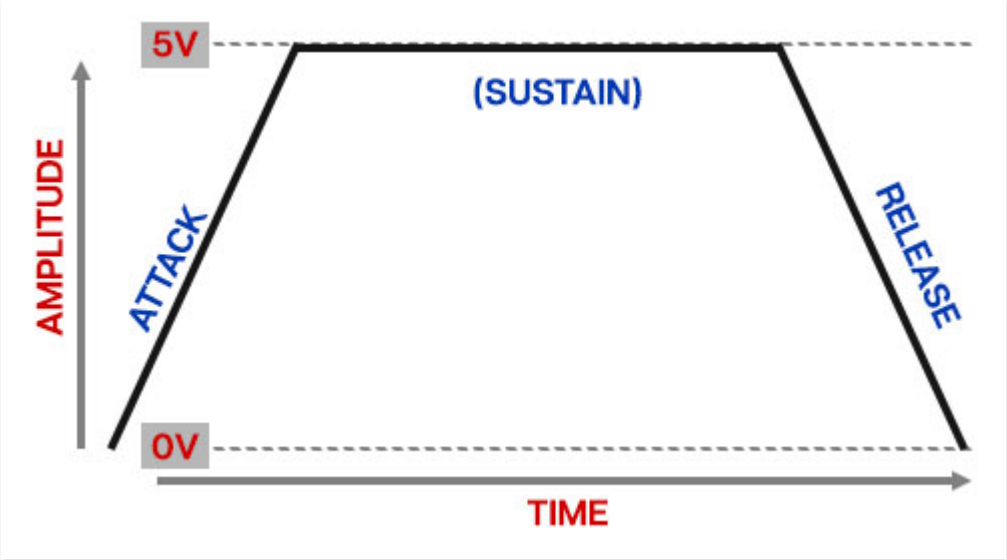
ADSR Repeat- Allows automatic triggering of the ADSR envelope with the LFO. The LFO Freq setting defines the rate at which the envelope retriggers.

- **Gated**- Envelope auto triggering occurs when a key is held
- **Off**- Envelope auto triggering is disabled.
- **Auto**- Envelope auto triggering occurs constantly regardless of whether a key is down.

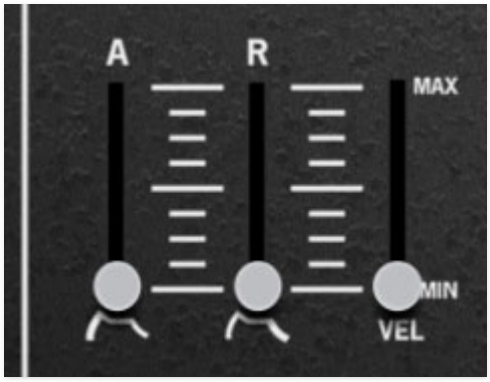
AR Envelope Generator

A simple envelope generator with attack and release segments only. Cat's AR envelope is actually an ASR - attack, sustain, release envelope, because the voltage holds at 5V when key is held.

The AR envelope functions as follows:



The attack stage defines how long it takes for the output voltage to rise from 0 to 5 volts. Once the attack stage reaches 5V, it remains there until the key is released. The release control defines the length of time it takes for the voltage to fall back to 0V when the gate input voltage is removed, i.e. when the key is released.



A (Attack)- Defines the length of time for voltage to rise from 0V to 5V when the gate voltage is applied.

R (Release)- Defines the length of time for voltage to fall to 0V when a key is released.

Vel (Velocity)- Sets the degree to which keyboard velocity affects overall envelope voltage output. At *Min* setting, velocity has no effect on the envelope. As the slider is set to higher values, playing the keyboard lightly decreases the overall envelope output. In a way, the *Vel* slider works "backwards," because it creates increasingly lower voltages as its setting is increased when playing lightly.

Sample + Hold

Sample + Hold is a synthesis tool that repetitively “samples” an input signal and outputs a held voltage until triggered again. It's not really a transient generator per se, but we assume it was placed in this section on the original instrument, because there was open panel space there.

In the image below, the smooth gray line shows a continuous input signal. Each time the module is triggered the current voltage is “sampled” and “held” until the next trigger. The red line shows the stepped output signal.



White noise is often used as an input source to generate a random stepped-CV signal. Modulating the pitch of an oscillator with this will create the classic sample and hold sound often heard in sci-fi movies, perhaps most recognizably as the voice of R2-D2.

S+H Glide- Similar to a standard keyboard glide control, this slews the voltage steps for smoother transitions. Higher slider settings = slower glide.

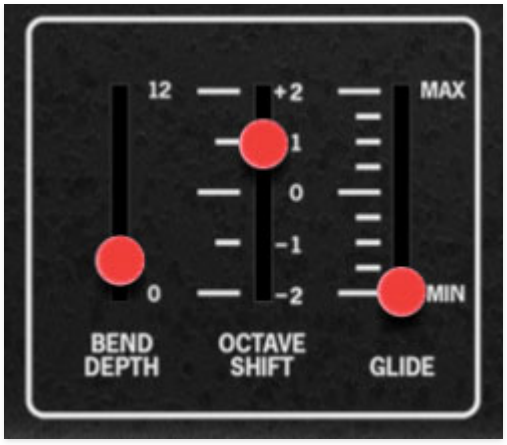
Sample + Hold sample source switch- This chooses which voltage is sampled.

control behavior.

- **VCO 1**- Samples VCO 1's voltage.
- **VCO 2**- Samples VCO 2's voltage.
- **Noise**- Samples the noise generator voltage.

Sample+holds typically default to using a noise source as the sample source, resulting in completely random voltages, but if timed correctly, VCO waves can be used for stepped "pseudo sequencer" effects.

Bend Depth, Octave Shift, and Glide



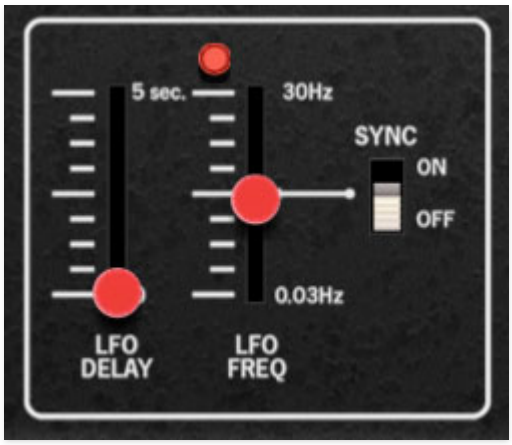
All three of these parameters are probably self-explanatory, but we're all about the explainer-ing around here, so dig it:

Bend Depth- Sets bend range when using a MIDI/USB controller pitch wheel or lever. Default setting is a whole-step (i.e. two semitones), but the range can be set from 0 to 12 semitones (one octave).

Octave Shift- Transposes the entire instrument down or up -2 or +2 octaves.

Glide- The *Glide* slider causes notes to slide smoothly from one pitch to the next. Higher settings result in a slower change of pitch.

LFO



The LFO (low-frequency oscillator) generates sub-audio range signals intended for modulation purposes.

LFO Delay- Moving this slider up gradually delays the onset of LFO depth. The delay time can be set from 0 to 5 seconds.

Keep in mind that there's only one LFO, so when playing in *Poly* mode, LFO delay is monophonic; that means *LFO onset delay occurs simultaneously for all notes currently playing.* LFO delay resets when all notes are released.

LFO Freq- The *LFO Freq* slider sets the speed of the LFO, from 0.03 to 30 Hz (with *Sync* button off) or from 8 beats up to 1/64th note triplets (*Sync* button on). The lamp above the *Rate* slider flashes at the current modulation rate.

Sync- When the *Sync* switch is enabled, LFO speed will lock to host tempo when using The Cat within DAW software, or to the current tempo in the top menu bar when using the standalone version.

VCO 1 and 2

The Cat includes two oscillators. Their controls are mostly similar, but different enough that we'll go over each individually (hey, we're not paying for this doc by the page).

VCO 1



Fine Tune- This can be used to fatten dual oscillator patches by detuning a small amount, or for "building-in" musical intervals. Its range is a roughly a minor third, up or down.

Coarse- Sets the coarse pitch range for VCO 1 from roughly 1 Hz to 9 kHz. When the *Keyboard Control* switch is set to the *On* position, the *Coarse* knob sweeps continuously; if the *Keyboard Control* switch is set to *Semi* position, the *Coarse* knob moves in semitone steps.

In both *On* and *Semi* positions, the red indicator light glows to indicate when VCO 1 is at (or near) an octave setting in order to simplify tuning.

Keyboard Control- Determines if the keyboard is connected to VCO 1 as well as *Coarse* control behavior.

- **Off**- This is useful if VCO 1 is being used a mod source and you don't want its pitch to rise and fall when notes are played on the keyboard.
- **On**- Oscillator pitch tracks the keyboard, *Coarse* knob sweeps pitch continuously.
- **Semi**- Oscillator pitch tracks the keyboard, *Coarse* knob moves in semitone steps.

Modulation Depth controls- The two *Modulation Depth* knobs and slide switches at left determine the routing and amount of VCO 1 pitch modulation.

- **VCO 1 mod routing 1**- The slider switch selects between sine wave, square wave, or sample and hold LFO modulation. The knob sets the amount of modulation; at center setting, modulation is off. Turning the knob to the right applies constant (*Dir*) modulation. Turning the knob to the left (*Whl*) applies mod via a USB/MIDI controller mod wheel with the knob setting the maximum mod amount. LFO frequency, delay, and host sync are set in the LFO section to the left.
- **VCO 1 mod routing 2**- The slider switch selects the mod source - ADSR envelope generator, AR envelope generator, or VCO 2. Turning the knob clockwise from center adds positive modulation; turning the knob counterclockwise applies negative modulation.

Pulse Width controls- The knob and slide switch at right determine the width of the pulse wave. These only affect the pulse wave, thus their effects will only be audible if the corresponding pulse wave slider below is turned up. The knob functions differently depending on the switch position:

- **Sine Wave pos** - The knob sets the depth of pulse modulation (PWM) via the LFO. The mod amount is zero with the knob fully counterclockwise; mod amount increases as the knob is dialed to the right. The modulation wave is a sine wave, and its speed is determined by the *LFO Freq* setting.
- **ADSR pos** - The knob sets the depth of pulse modulation via the ADSR envelope generator. The mod amount is zero with the knob fully counterclockwise; mod amount increases as the knob is dialed to the right.
- **DC pos**- Pulse width remains constant. Setting the knob fully counterclockwise creates a perfect square wave; dialing the knob to the right makes the pulse wave thinner.

Audio Levels- The Cat allows all oscillator waves to be used simultaneously in any mix. The sliders set their relative levels. The Sub Octave slider creates a square wave exactly one octave below the current oscillator tuning; this is useful for fattening up sounds.

VCO 2



VCO 2's functions are almost the same as VCO 1, but we'll go over its differences here.

Fine Tune- This can be used to fatten dual oscillator patches by detuning a small amount, or for "building-in" musical intervals. Its range is a roughly a minor seventh, up or down. (For you forum complainers in studio audience, we know the range is different from the VCO 1 *Fine Tune* control - this accurately emulates the original instrument).

Sync- This causes VCO 2 to force reset the start of VCO 1's waveform to the beginning of its cycle, resulting in the classic Cars "*Let's Go*" tearing

harmonics sound when the oscillator 2's pitch is swept. The Cat's sync implementation is unique in that it has two different sync modes:

- **Mode A**- VCO 2 forces VCO 1's waveform to the beginning of its cycle, and VCO 1 is actually turned off for half of each VCO 2 cycle. As far as we know, Sync *Mode A* is completely unique to the original Cat, and we've accurately reproduced it with guidance from The Cat's original designer... thanks Carmine!
- **Off**- Disables oscillator sync.
- **Mode B**- The standard sync style commonly heard in most analog synths wherein VCO 2 forces VCO 1's waveform to the beginning of its cycle, and the entire wave cycle is heard.

Modulation Depth controls- The two Modulation Depth knobs and slide switches determine the routing and amount of VCO 2 pitch modulation.

- **VCO 2 mod routing 1**- The slider switch selects between sine wave, square wave, or sample and hold LFO modulation. The knob sets the amount of modulation; at center setting, modulation is off. Turning the knob to the right applies constant (*Dir*) modulation. Turning the knob to the left (*Whl*) applies mod via a USB/MIDI controller mod wheel with the knob setting the maximum mod amount. LFO frequency, delay, and host sync are set in the LFO section to the left.
- **VCO 2 mod routing 2**- The slider switch selects the mod source - ADSR envelope generator, AR envelope generator, or VCO 1. Turning the knob clockwise from center adds positive modulation; turning the knob counterclockwise applies negative modulation.

Audio Levels- The Cat allows all oscillator waves to be used simultaneously in any mix. The sliders set their relative levels. The Sub Octave slider creates a square wave exactly one octave below the current oscillator tuning; this is useful for fattening up sounds.

VCF



Cherry Audio's Cat filter is based upon the original four-pole 24 db/oct "cascaded OTA" SSM2040 filter. This filter was used in a number of 70s and 80s analog synths, including the original Rev 1 and Rev 2 Prophet-5.

VCO 1 Audio- Enables or disables input from VCO 1. The intention of this control is to disable VCO 1's sound when it's used strictly as a mod source and you don't want to hear it.

Keyboard Control- This causes the cutoff frequency to increase as ascending notes are played on a keyboard. The idea behind this is, because actual note frequencies rise as higher pitches are played, the *Keyboard Control* switches adds a rising CV to the cutoff frequency in order to maintain the brightness of notes as higher pitches are played.

When set to its middle position, the cutoff frequency tracks the keyboard at 1V/oct, just like the oscillators. This allows the filter to be used as a "third oscillator," outputting a pure sine wave - it's particularly effective when combined with the noise (*Noise Level*) source.

Modulation Depth controls- The two Modulation Depth knobs and slide switches determine the routing and amount of VCF cutoff frequency modulation.

- **Mod routing 1**- The slider switch selects between sine wave, square wave, or sample and hold LFO modulation. The knob sets the amount of cutoff frequency modulation; at center setting, modulation is off. Turning the knob to the right applies constant (*Dir*) modulation. Turning the knob to the left (*Whl*) applies mod via a USB/MIDI controller mod wheel with the knob setting the maximum amount of mod. LFO frequency, delay, and host sync are set in the LFO section to the left.
- **Mod routing 2**- The slider switch selects the mod source - ADSR envelope generator, AR envelope generator, or VCO 1. Turning the knob clockwise from center adds positive modulation; turning the knob counterclockwise applies negative modulation.

Fc (Cutoff Frequency)- The filter removes high harmonics as the slider setting is decreased from max, resulting in a dulling of sound.

Q (Resonance)- Emphasizes sound energy at and around the current cutoff frequency by adding feedback from the filter's output back to its input. At lower settings, this can be used to create mild resonances such as those heard in acoustic instruments.

The Cat's resonance circuit is unique and can result in some SERIOUS squelching and screaming at higher settings, so be very cautious with volume when cranking the Q slider.

Master



Limiter- The *Limiter* switch applies a transparent limiting effect to help prevent overloading. This is particularly useful with higher *Number of Voices* settings.

Output Meter- Displays overall output level. Keep it in the green and out of the red for best results.

VCA



Volume and modulation controls- The VCA section controls overall amplitude (volume). The slides switch chooses between amplitude control via the ADSR envelope generator, the AR envelope generator, or *Bypass* mode.

When *Bypass* mode is selected and *Keyboard Mode* (next to the keyboard) is set to *Mono* or *Duo*, The Cat will continuously sound. *Bypass* mode doesn't work if *Keyboard Mode* is set to *Poly*, because this would result in an uncontrollable mess of notes (trust us, it's not what you want).

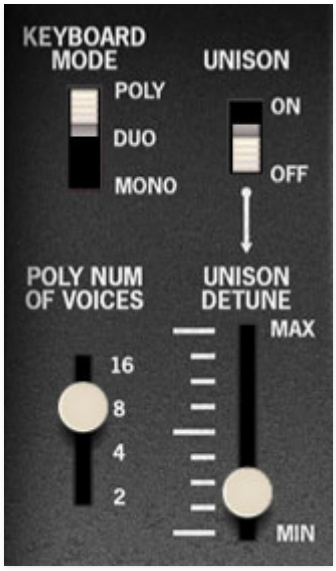
The *Volume* knob sets master volume in all mod modes.

Noise



Noise Level- Sets the volume level of The Cat's white noise generator. For those of you hoisting clipboards, white noise is a random signal in which all frequencies across the frequency spectrum are represented equally.

Keyboard Mode and Unison Controls



These controls are located to the left of the keyboard. They set the number of simultaneously playable notes, as well as unison mode and behavior.

Keyboard Mode- Determine the number of simultaneously playable notes, but Duo mode is unique, so we advise not skimming over this part:

- **Poly**- Plays as a standard polyphonic synthesizer, that is, each voice has its own independent dual oscillators, filter, VCA, envelope generators, etc. The total number of voices is set using the *Poly Num of Voices* controls, and the keyboard always plays in last note priority mode, that is, the most recently played note always steals the oldest note.

- **Duo (Duophonic)**- Duophonic mode is based on the original Cat's primitive duophonic circuit. When the keyboard is played monophonically, both oscillators play the same pitch as with standard mono mode. If two or more keys are played, the CV of the lowest note controls VCO 2, and the CV of the highest note controls VCO 1. Any notes played in between won't affect the pitch of either VCO.

  Since the original instrument only has a single set of envelopes, filter, VCA, etc., each note played will retrigger the envelopes, causing both pitches to be heard - even if one of them is held). And similarly, both tones will be hear, even if one of the keys is released because there is only one VCA. *Duo* mode is far from ideal for "normal" playing, but it can

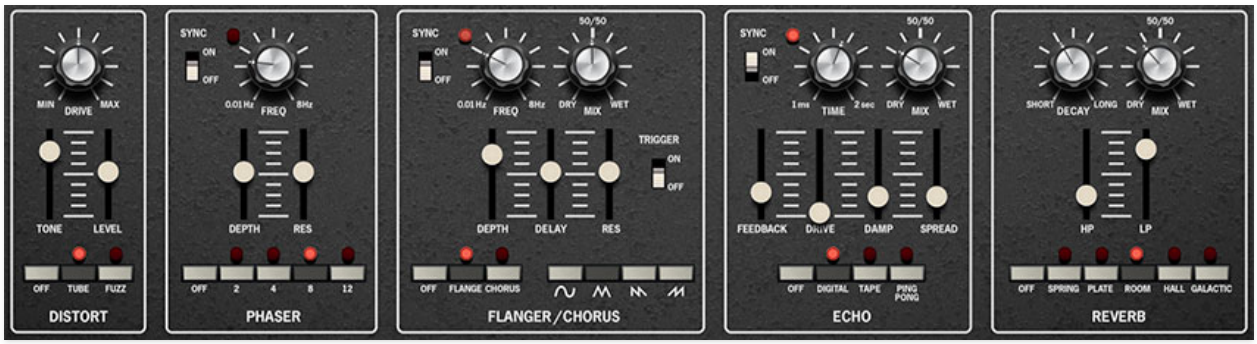
lead to unusual and interesting musical results. If you'd like Cat to behave more like a conventional two-voice polyphonic synth, use *Poly* mode with *Poly Num of Voices* set to *2*.

- **Mono**- One key sounds at a time with low-note priority.

Poly Num of Voices- Sets the maximum number of voices that can be played in *Poly* mode. *Poly Num of Voices* has no effect if *Mono* or *Duo* mode is currently selected.

Unison- Unison stacks multiple voices according to the current *Poly Num of Voices* setting. The *Unison* slide switch is used in conjunction with the *Unison Detune* slider which spreads out the tuning of the oscillators for fat sounds. Unison mode works only in *Mono* and *Duo* keyboard modes.

Effects



The Cat includes five simultaneous effects: Distortion, Phaser, Flanger/Chorus, Delay, and Reverb. These can be used in any combination.

Distort



Drive- Overall amount of distortion.

Tone- Sets the brightness of tone.

Level- Overall volume; this doesn't affect the amount of distortion. Increasing drive will cause an overall volume increase, *Level* can used to balance things out.

Mode buttons-

- **Off**- Distort effect is disabled.
- **Tube**- Relatively mellow distortion mode. Use it to add just little bit of vintage hair to sounds.
- **Fuzz**- Aggressive and raunchy vintage fuzz tone.

Phaser



Sync- The *Sync* slide switch locks the rate of the Phaser's modulation LFO to the tempo in the top toolbar when using The Cat standalone version, or to the current project tempo when the plug-in version is used in a DAW. When engaged, the *Freq* knob snaps to note values ranging from 1/64th note triplet to 8 beats.

Freq- Sets the phaser's internal LFO speed from 0.01 to 8 Hz.

Depth- Sets the effect depth - essentially an amount control.

Res (Resonance)- Increasing the amount of *Res* intensifies the phasing effect. This is sometimes referred as "feedback" in other phaser units.

Mode buttons-

- **Off**- Phaser effect is disabled.
- **2/4/8/12 Stage setting**- The Cat's phaser includes up to 12 all-pass filter stages. As a general rule, more stages = lusher phase, but there are plenty of interesting tones to be had using the lower stage settings.

Flanger/Chorus



We've included a thick and warm flanger/chorus effect. Flanging and Chorus are closely related - the general difference being that flangers use a shorter time range and some amount of feedback (this intensifies the "jet-flyby" whoosh), whereas choruses utilize a slightly longer delay time, and no feedback.

Sync- The *Sync* slide switch locks the rate of the Flanger/Chorus's modulation LFO to the tempo in the top toolbar when using The Cat standalone version, or to the current project tempo when the plug-in version is used in a DAW. When engaged, the *Freq* knob snaps to note values ranging from 1/64th note triplet to 8 beats.

Freq- Sets the phaser's internal LFO speed from 0.01 to 8 Hz.

Mix- Sets the ratio of clean to effected sound. Flanging and chorusing is usually optimal at a 50/50 setting, but we've added the *Mix* control by popular demand to allow more subtle (or warble-riffic) tones.

Depth- Sets effect depth, i.e. the amount of modulation.

Delay Time- Sets the amount of delay time when in Flanger mode, from 1-13ms.

Res- Sets the amount of internal feedback when in Flange mode.

Trigger- This is a fun and unique feature that forces the modulation wave to restart when a key is pressed. It's most noticeable and useful in *Flange* mode, with short *Delay* times and high *Res* settings.

Note that the mod wave restart is monophonic - that is, the wave only restarts if no other keys are currently being held.

Mode buttons-

- **Off**- Flanger/Chorus effect is disabled.
- **Flange**- Flange mode is enabled.
- **Chorus**- Chorus mode is enabled. Note that the *Delay* and *Res* sliders are disabled when in Chorus mode.

Modulation Waves- Selects the shape of the modulation waveform. Options include sine, triangle, sawtooth, and ramp.

Echo



Sync- The *Sync* slide switch locks the delay time to master tempo. When engaged, the *Time* knob snaps to note values ranging from 1/64th note triplet to 8 beats. *Sync* mode locks to the tempo in the top toolbar when using The Cat standalone version or the current project tempo when the plug-in version is used in a DAW.

Time- Sets delay time, from 1 to 2000 ms. If the *Sync* button is enabled, time settings snap to synchronized note values.

Mix- Sets the ratio of clean to effected sound.

Feedback- Routes the output to the input for additional repeats. Be careful at high settings as this can result in runaway feedback madness.

Drive- Adds subtle-to-not-so-subtle breakup to echo repeats only.

Damp- Attenuates high-frequencies as the knob amount is increased. Not only does this create more natural sounding decays, it also reduces the "stacking" effect that occurs with high feedback levels.

Spread- Alters the left and right channel delay times creating a stereoizing effect. Greater amounts of spread increase the delay time differential and thus the stereo separation.

Mode buttons-

- **Off**- Disables Echo effect.
- **Digital**- A pristine sounding digital delay.
- **Tape**- Reproduces the effect of a vintage "space echo" tape delay.
- **Ping Pong**- Echoes alternate between audio channels.

Reverb



Decay- Sets the length of reverb release time/size of room.

Mix- Sets the ratio of clean to effected sound.

HP- A highpass filter affecting wet reverb signal only. Low frequencies are increasingly attenuated as the knob setting is increased.

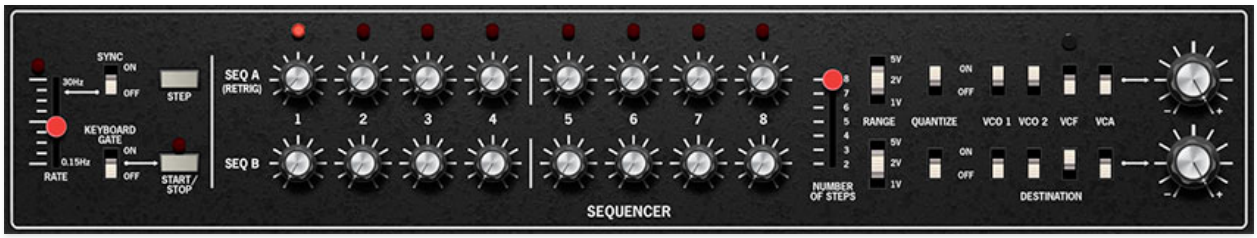
LP- A lowpass filter affecting wet reverb signal only High frequencies are increasingly attenuated as the knob setting is decreased.

Mode buttons-

- **Off**- Disables Reverb effect.

- **Spring**- Recreates mechanical spring-reverb effect often seen (and kicked) in vintage guitar amps.
- **Room**- Recreates a vintage algorithmic-style medium room verb.
- **Plate**- A medium-to-large studio plate-style algorithm.
- **Hall**- A large, hall-style reverb.
- **Galactic**- Cherry Audio's exclusive, giant, spacey reverb.

Sequencer



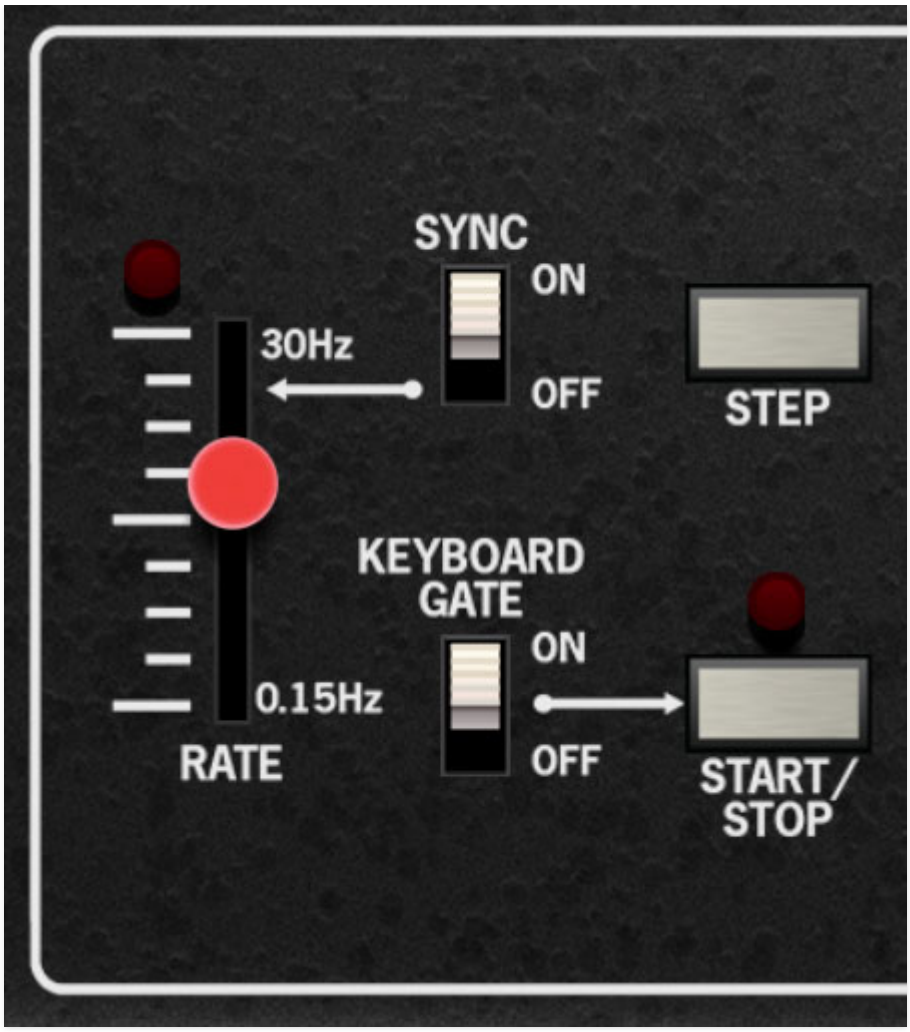
Cherry Audio's Octave Cat includes a dual-channel, eight-step sequencer. The sequencer CV's can be independently assigned not only to oscillator pitches, but also to filter cutoff and VCA amplitude.

Sequencer Basics

A classic analog sequencer is a pretty simple device that generally consists of one or more rows of eight or sixteen knobs or slider controls. Each of these sets a voltage and is referred to as a **stage**. A dedicated oscillator clock automatically steps through the setting of each knob in the row. If the output voltages are connected to the mod input of an oscillator, the knob settings correspond to pitches, and melodies are heard. Melodic sequences are the most common application, but sequencer control voltages can also be routed to control filter cutoff frequency for "stepped" timbre control, or to a voltage-controlled amplifier (VCA) to control note volume.

The advantage of using a sequencer to execute melodic sequences (as opposed to playing them manually on the keyboard) is that they play with absolute precision, and if desired, at inhumanly fast tempos. When combined with the aforementioned filter and VCA mod, a vast amount of synthesis textures are possible.

Sequencer Controls



Rate- Sets the overall speed of the sequencer clock, i.e. how fast it moves from step to step, from 0.15 to 30 Hz. The indicator lamp above the slider displays the current tempo.

Sync- The *Sync* slide switch locks the sequencer clock rate to the tempo in the top toolbar when using The Cat standalone version, or to the current project tempo when the plug-in version is used in a DAW. When engaged, the *Rate* slider snaps to note values ranging from 1/64th note triplet to 8 beats.

Step- Advances the sequencer to the next stage when in stop mode. This is generally used for setting up sequence pitches and here's why - it can be difficult to set sequence pitches while the sequence is running.

Important Sequencer Note Trigger Info... Like most analog synths, The Cat's note amplitude is controlled by a voltage-controlled amplifier (VCA), which in turn is controlled by the ADSR or AR envelope generators. When a note is played or the sequencer is running, gate voltages are sent to the envelope generators, which "open" the VCA so that notes are heard.

To use the *Step* button to dial in the CV knobs when the sequencer isn't running, there are two ways to hear notes:

- Set the *VCA* section mode switch to *Bypass* mode - this keeps the VCA open. We recommend turning the *Volume* knob down before switching to *Bypass*, or...
- Hold down a note on the keyboard.

Remember that keyboard CV is combined with sequencer CV - in other words, the keyboard transposes sequencer pitches, so if you're setting seq pitches by holding down a key, make sure to always hold down the same note on the keyboard. (There's one exception to this rule, but it's not important here and we'll cover it later.)

Keyboard Gate- The Keyboard Gate slide switch works in conjunction with the Start/Stop button to allow sequence playback when keys are held. When Keyboard Gate is enabled, the sequencer behaves as follows:

If Start/Stop is currently disabled, playing a key resets the sequence to step 1, begins playing and continues to play as long as the key is held down.

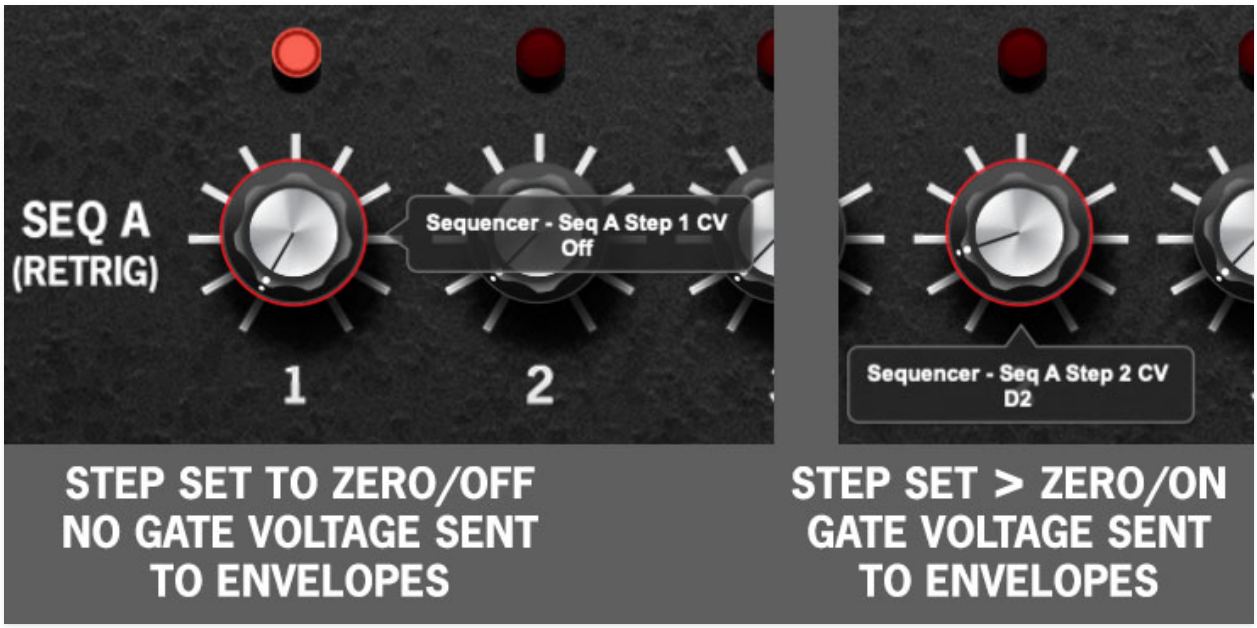
Start/Stop- Manually starts and stops the sequencer clock. Sequencer playback operates a little differently depending on which *Keyboard Mode* is currently selected, as follows:

- ***Keyboard Mode set to Mono or Duo***- The sequencer resets to step 1, begins playing, and knob and gate control voltages gate CV's are sent for all active steps. In layman's terms, sequencer notes play automatically as you would expect.
- ***Keyboard Mode set to Poly***- The sequencer resets to step 1, begins playing, and knob CV's are sent for all active steps. Gate CV's are sent ONLY if notes notes are held down on the keyboard. Sequencer CV's are applied to all notes played.

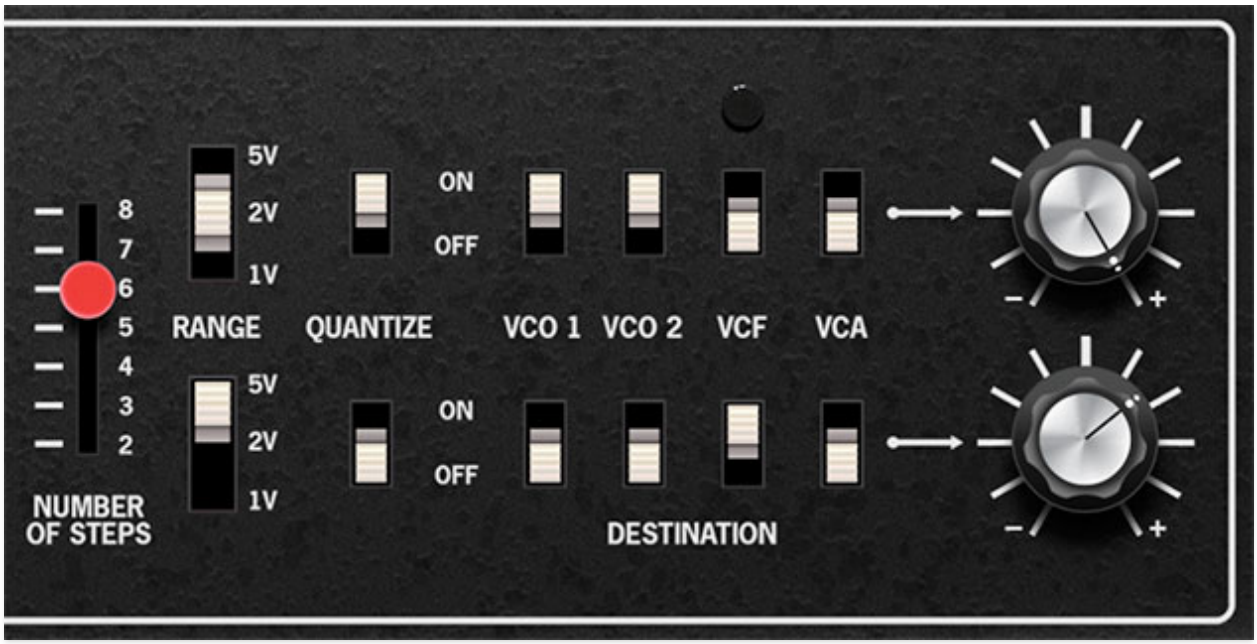
The reason The Cat sequencer operates this way is that if the sequencer gate voltages triggered the envelope generators for all poly voices, you'd hear a cacophony of (mostly) unwanted notes - in other words, every poly note you were playing on the keyboard AND random notes for the remainder of voices (according to the current *Poly Num of Voices* setting). Instead, Cat triggers the envelope generators only for currently played notes on the keyboard.



Seq A (Retrig) / Seq B CV knobs 1-8- These set the CV amount for each stage sequencer stage. The CV range depends upon the settings of the *Range* switches. *Seq A* and *Seq B* CV settings are independent, but the stage (step) number is always locked together for both. The lamp above each stage indicates the current stage.



Disabling Gate Voltage for Seq Stages - Setting any of *Seq A's* knobs to minimum disables the gate voltage for that stage. This allows you to disable stages, enabling far more interesting musical phrases and is why *Seq A* is labeled *(Retrig)* beneath. Note that *Seq B* CV knobs have no effect on gates/note triggering.



Number of Steps- Sets the overall length of the sequence pattern before it repeats. A setting of one can be useful for simple "auto-repeat" note effects.

Range- Sets the knob ranges to one, two, or five octaves. *Range* can be set independently for each sequence channel. Generally speaking, 1 or 2V is more useful for oscillator pitch control, whereas 5V is more useful for filter and VCA control.

Quantize 1/2/3- When enabled, these round off voltage settings to the nearest 1/12 volt, i.e. semitones. This greatly simplifies creating in-tune melodies. Quantization can be enabled or disabled independently for Seq A and Seq B.

Destination switches and amount knobs- These set the mod routing of the sequencer control voltages, allowing routing to VCO 1 and VCO 2 frequency, VCF cutoff frequency, or VCA amplitude. The knobs immediately to the right of switches are attenuators that regulate how much mod is sent. Turning the knob clockwise from center adds positive modulation; turning the knob counterclockwise applies negative modulation.

Sequencer modulation works independently and additively with any mod applied using the center mod switches and attenuator knobs on the *Main* panel controls page. That is, mod settings on the main page or sequencer pages don't affect one another - all mod just "adds together." If sequencer mod isn't behaving as expected, jump over to the *Main* panel controls page and check out the mod settings to make sure nothing nutty is going on (and vice-versa).

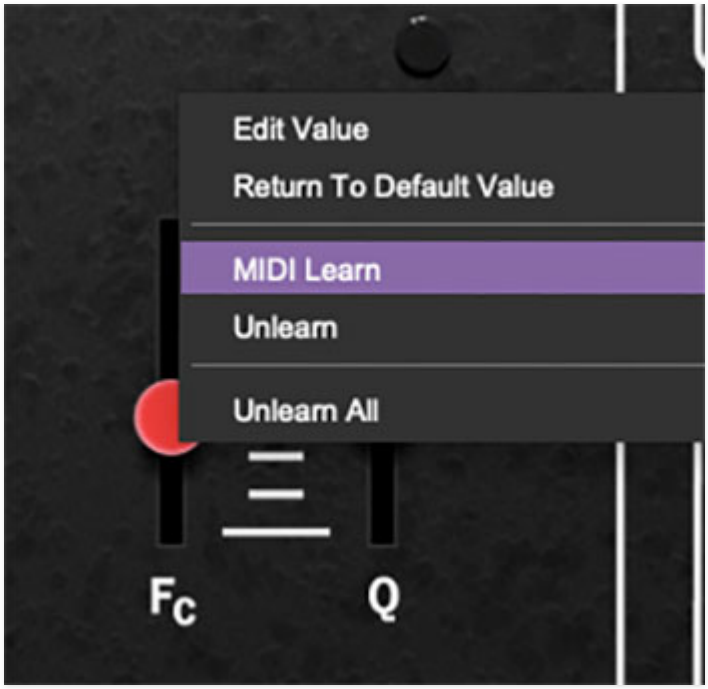
MIDI Controllers Setup and the MIDI Tab

Assigning internal and external hardware controls adds a whole new dimension of control and musicality to patches, and it's really easy to do. The MIDI Tab is where all controller assignments can be viewed and tweaked. First we'll show how to assign an external hardware controller to an Octave Cat control, then we'll go over all parameters in the MIDI Tab.

Basic External Hardware Control Assignment

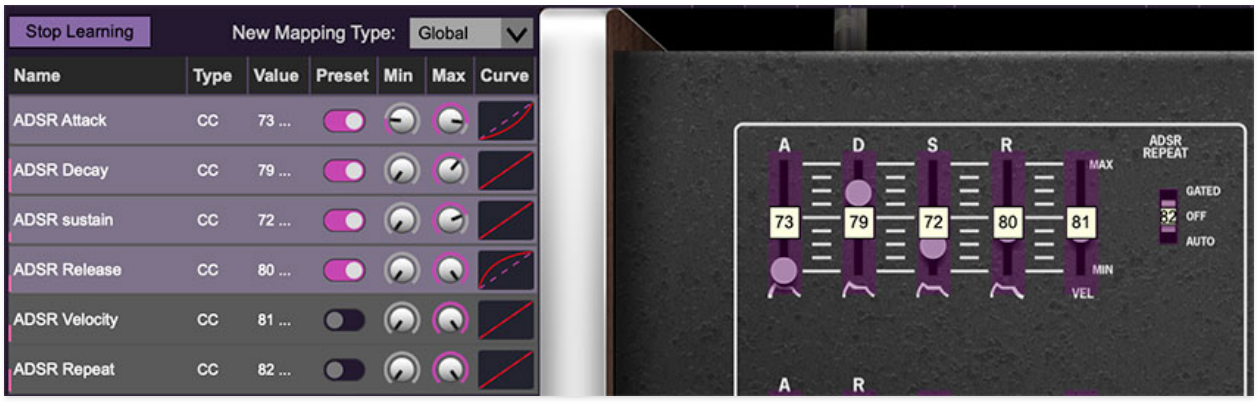
This is the quick, "I just want to assign a hardware control right now!," section. We recommend reading this whole section to best take advantage of Octave Cat's swell MIDI control assignments.

In this example, we'll assign a hardware slider/knob control to the filter *Fc* slider (*Fc* is electrical engineer language for "filter cutoff frequency") .



Begin by right-clicking on the *Fc* slider in the *VCF* section and selecting *MIDI Learn.* A transparent purple overlay appears over the knob indicating that it's in learn mode. Now move the desired hardware control device. The purple overlay disappears and the hardware control will move the onscreen slider. If you get cold feet (or accidentally put the wrong control into learn mode), learn mode can be aborted by right-clicking and selecting *Stop Learning*.

This is the basic procedure for assigning hardware controllers to almost any Octave Cat control.



When in MIDI learn mode, any previously assigned controller numbers will show in squares. These indicate the MIDI continuous controller number of the assigned hardware control (these are also displayed in the *MIDI* library tab at left).

Once a MIDI controller has been assigned, in addition to real-time control of a Cat parameter, you'll also be able to record and play back controller data from a DAW.

The MIDI Tab

This is command central for all MIDI controller assignments. Here you'll be able to see information about all currently assigned controllers and adjust control ranges.



To view or hide the MIDI Tab, click the *MIDI* button in the purple top toolbar.



MIDI Learn button- This is almost exactly the same as enabling MIDI learn mode by right-clicking a control. Click the *MIDI Learn* button to enter learn mode (all controls turn purple). Unlike right-clicking on specific knobs, where Cat automatically exits controller assignment mode, clicking the *MIDI Learn* knob "stays on" to enable assignment of multiple hardware controls. This is handy for quickly assigning a bunch of sliders or the buttons of a grid-style controller.

To assign multiple controls, click *MIDI Learn*, click an on-screen control, move the desired hardware knob or slider, continue clicking and assigning on-screen controllers until all desired controls are assigned, then click *Stop Learning* to exit learn mode.

Remember that a single hardware knob/slider/button isn't limited to controlling just one parameter - a single hardware controller can simultaneously operate as many controls as you'd like.

New Mapping Type- This popup menu selects whether newly assigned MIDI mappings will be global (affects all sounds and doesn't change when different presets are selected) or saved with individual presets.

MIDI Tab Columns

Name- Displays the name of the parameter being controlled.

Type- There are five possible types of controller automation in Octave Cat:

- **Note**- Notes played on a MIDI keyboard controller, expressed as C-1 to G9
- **CC (MIDI Continuous Controller)**- The standard 128 MIDI controller numbers as defined in the MIDI spec. More specifically, these are the controllers transmitted by hardware knob and slider controls. MIDI CC's can be used to control parameters in real-time or recorded and played back within DAW software.
- **MMC (MIDI Machine Control)**- The MIDI control protocol for tape machine-style transport controls. Back in the dark ages, this was used to control wonky old Tascam and Fostex reel-to-reel monsters, but it's useful if your MIDI controller has tape-style transport control buttons.
- **Aftertouch**- Besides sounding like a 1981 Melissa Manchester record, some keyboard controllers transmit controller data when keys are pressed and released as they're held down. The vast majority of keyboard controllers with aftertouch transmit "mono" aftertouch only; in other words, aftertouch data is the sum of all keys to one single data stream.
- **Key**- This allows keys of the computer QWERTY keyboard to at as button controls for The Cat's onscreen controls.

Value- Displays the specific automation controller. In the case of a *Note* this would show a MIDI note number (C-1 to G9, for a MIDI CC, this would be the MIDI CC controller number, etc. Clicking on the value opens a pop-up menu where all values are displayed and can be selected.

Preset- This slider works in conjunction with the *New Mapping Type* menu. In the left position (gray background), the MIDI mapping is global (affects all sounds and doesn't change when different presets are selected), in the right position (lavender background), the MIDI mapping is saved with, and only affects the current sound preset.

The *Preset* switch is super nifty, because it means MIDI mappings can easily be set to global or per-preset status at any time. (A lot of folks asked us for this feature.)

Min- Sets a limit on the lowest value any automation control can set a mapped controller to. This actually recalibrates the range of the automation controller to the remaining parameter range.

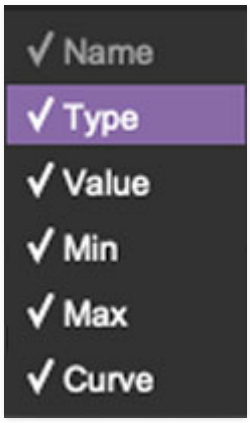
Max- Sets a limit on the highest value any automation control can set a mapped controller to. This actually recalibrates the range of the automation controller to the remaining parameter range.

- ***Super Tricky Min-Max Tricks***- Not only can parameter ranges be limited via the the *Min* and *Max* knobs, mapped control destinations can be completely inverted by setting the *Min* knob all the way up and the *Max* knob all the way down (or anywhere in between).

  Limiting and inverting parameter ranges with the *Min/Max* controls is particularly useful when multiplexing a single hardware control to operate multiple parameters. Along with the *Curve* control, the customization possibilities are super flexible.

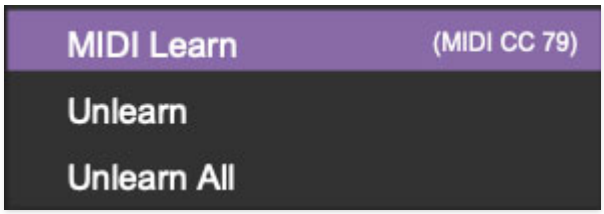
Curve- These allow the customization of how incoming MIDI CC controls affect the movement of The Cat's onscreen controls, ranging from exponential to linear to logarithmic curves.

MIDI Tab Column Configuration Right-Click Menus



Right-clicking anywhere in the top row (*Name*, *Type*, *Value*, etc.) displays the column configuration menu. Checking/unchecking these allows hiding and display of each column. This has no effect on assignments.

MIDI Tab Parameters Right-Click



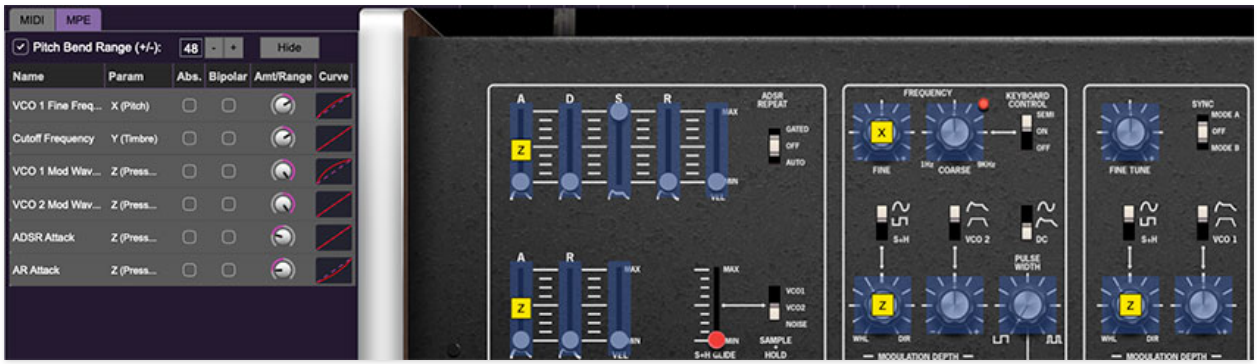
Right-clicking on an assigned parameter opens the menu above.

MIDI Learn- This is used to change the controller assigned to a particular parameter.

Unlearn- Deletes the selected automation parameter.

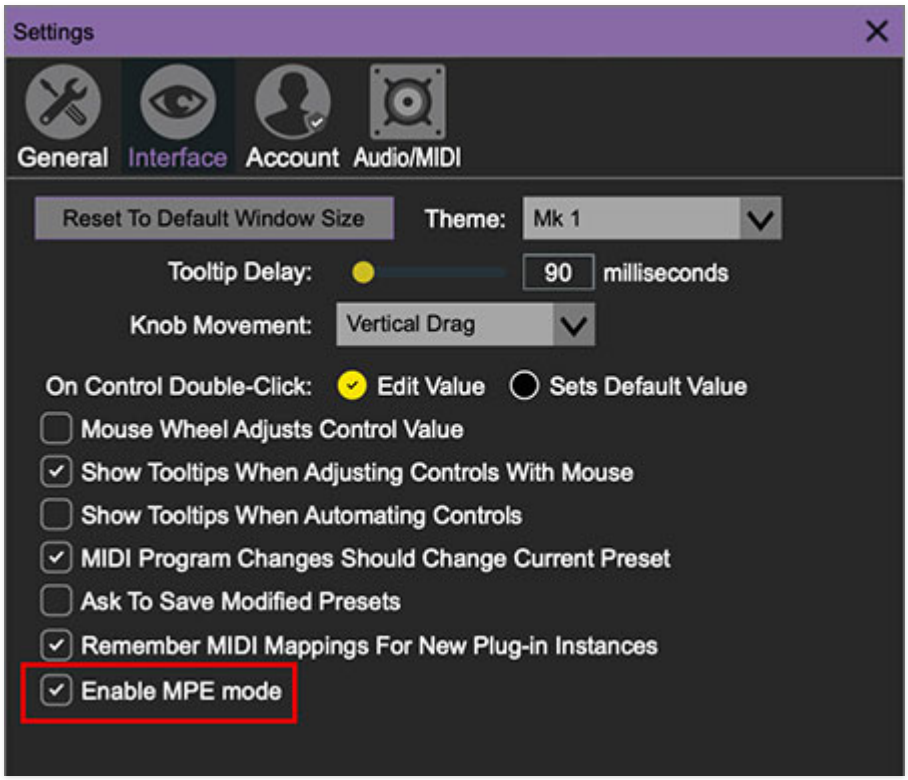
Unlearn All- Deletes all controller assignments for the patch. Octave Cat will display a warning dialog prior to deletion in order to thwart potential unlearn-related disasters.

Using MPE



The Cat supports MPE, short for "MIDI Polyphonic Expression." It's a specialized MIDI protocol enabling multidimensional controllers for controlling multiple parameters of individual notes. MPE specifies the MIDI messages used for three dimensions of control, regardless of how a particular controller physically expresses them. MIDI channel 1 is used as a master channel for global pitch bend, aftertouch, etc.; MPE utilizes MIDI channels 2-15 for the remaining controller data.

To enable MPE mode, click the *Settings* gear icon in the top purple toolbar, then the *Interface* tab, then check the *Enable MPE mode* box. Exit out of the *Settings* window and click the *MPE* icon in the top tool bar.

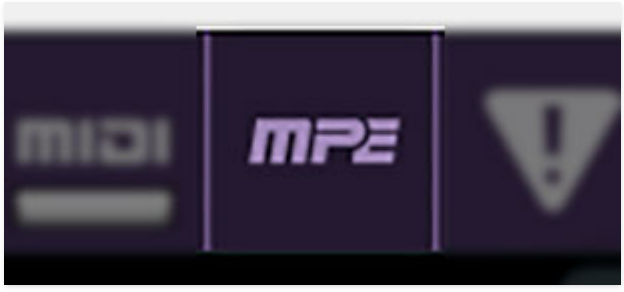


When MPE is enabled, you'll see the *MPE Active* badge on the left side of the panel. The *Keyboard Mode*, *Poly Num of Voices*, *Unison* on/off switch, and *Unison Detune* sliders will be grayed out and disabled.

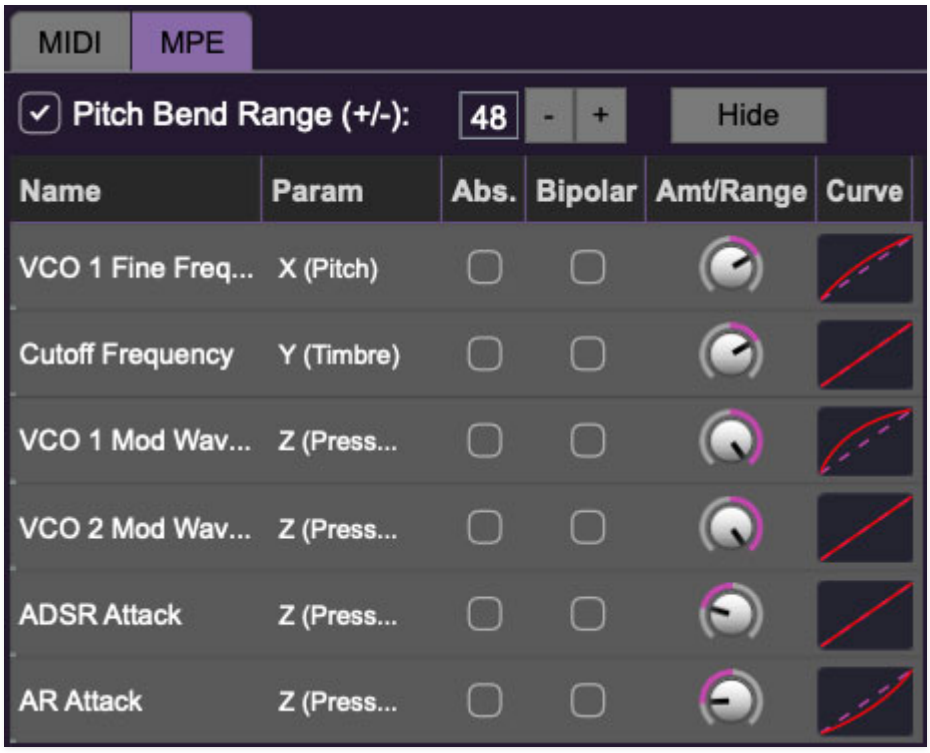


Do not enable MPE mode if you're not using an appropriate MPE controller (you'll know if you have one). The Cat will *not* play correctly with a standard USB MIDI controller while in MPE mode. Do not taunt Happy Fun Ball™!

MPE Control Tab

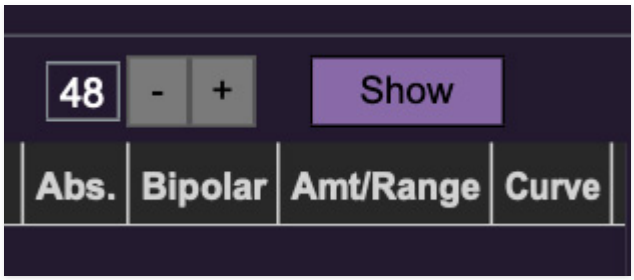


Once MPE is enabled, a button appears in the top purple menu strip. Click it to hide or show the MPE tab.

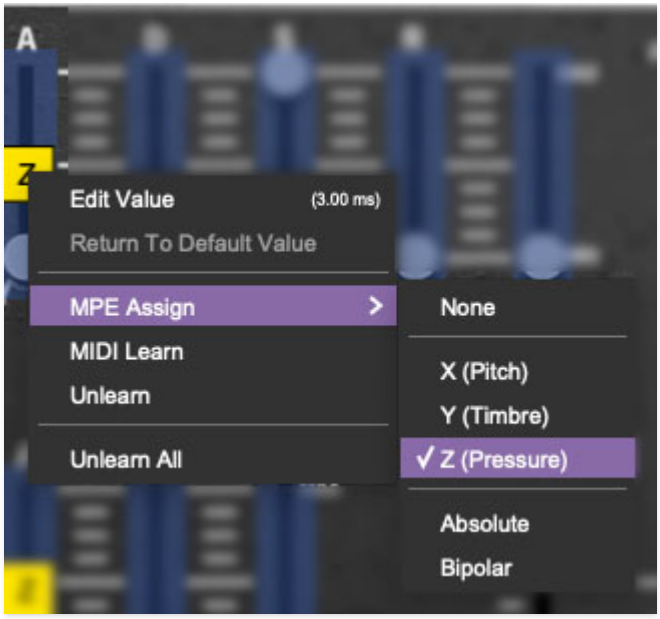


Pitch Bend check box and Range controls- At the top of the tab is a checkbox which enables pitch bend; to its right is the pitch bend range control. Its default setting is 48 semitones (four octaves). For best results you will need to match this number with your MPE controller's pitch bend setting (most MPE controllers default to 48 semitones).

***IMPORTANT**:* If MPE mode is enabled, you must use a MPE controller set to ”Lower Mode” to achieve full MIDI control.



Show/Hide Button - Clicking the *Show* button in the MPE panel highlights all of the available MPE mappable control sliders for The Cat with blue overlays atop panel controls. Click the *Hide* button to hide them.



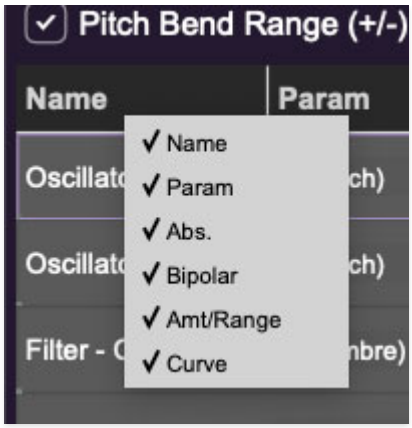
To map a control slider, right-click or [OPTION]+click (Windows) / [CONT]+click (Mac) the slider you wish to map. This reveals the controller mapping menu. Select *MPE Assign*.

Options are:
X (Pitch)
Y (Timbre)
Z (Pressure)

Note: Some MPE controllers such as the Roli Seaboard may have as many as five dimensions of expression. The Cat utilizes the three standard dimensions: *Pitch*, *Channel Pressure*, and *Timbre*. Also, not all MPE controllers are equipped with a master/global pitch bender.

Once mapped, the *Name* and *Parameter* will be visible in the MPE tab. A yellow square indicator (X,Y,Z) also appears atop each of the mapped controls.

MPE Tab Columns



Right-clicking any of the column headers opens a popup menu allowing each header to be shown or hidden.

Name- Displays the name of the parameter being controlled.

Parameter- Displays and allows selection of the three controller types: *X (Pitch), Y (Timbre),* and *Z (Pressure).*

Absolute- Sets the *Amt/Range* of the controller to absolute or relative control.

Bipolar- Enables bipolar controller, i.e. the ability to add and subtract the parameter amount, as opposed to positive only.

Amount/Range- Sets the intensity of control range. If set to *Absolute* mode, two knobs appear for min/max settings.

Curve- These allow the customization of how controller data affect the movement of Cat's onscreen controls, ranging from exponential to linear to logarithmic curves. Click and drag on the red line and pull up or down to adjust the curve.

MPE Tab Column Configuration Right-Click Menus

Right-clicking anywhere in the top row (*Name*, *Type*, *Value*, etc.) displays the column configuration menu.

Auto-size This Column- Automatically resizes so that all text in this column is visible.

Auto-size All Columns- Automatically resizes all columns simultaneously so that all text visible.

Column View Filters- Clicking any of these will hide or show the respective columns.

MPE Tab Parameters Right-Click



Right-clicking on an assigned parameter opens the menu above.

Remove- Deletes the selected MPE controller parameter.

Remove All- Deletes all MPE controller assignments for the patch. The Cat displays a warning dialog prior to deletion in order to thwart potential disasters.

MPE Mappable Parameters

Below are all mappable Cat MPE parameters. Note that only polyphonic parameters (i.e. parameters that independently affect individual notes) can be mapped with MPE.

SECTION	PARAMETER
TRANSIENT GENERATORS	ADSR - ATTACK
TRANSIENT GENERATORS	ADSR - DECAY
TRANSIENT GENERATORS	ADSR - SUSTAIN
TRANSIENT GENERATORS	ADSR - RELEASE
TRANSIENT GENERATORS	ADSR - VELOCITY
TRANSIENT GENERATORS	AR - ATTACK
TRANSIENT GENERATORS	AR - DECAY
SECTION	PARAMETER

TRANSIENT GENERATORS	AR - VELOCITY
VCO 1	FREQUENCY - FINE
VCO 1	FREQUENCY - COARSE
VCO 1	MODULATION DEPTH 1
VCO 1	MODULATION DEPTH 2
VCO 1	PULSE WIDTH
VCO 1	AUDIO LEVEL - SUB OCTAVE
VCO 1	AUDIO LEVEL - SAW WAVE
VCO 1	AUDIO LEVEL - TRIANGLE WAVE
VCO 1	AUDIO LEVEL - PULSE WAVE
VCO 2	FREQUENCY - FINE
VCO 2	MODULATION DEPTH 1
VCO 2	MODULATION DEPTH 2
VCO 2	AUDIO LEVEL - SUB OCTAVE
VCO 2	AUDIO LEVEL - SQUARE
VCO 2	AUDIO LEVEL - SAW
VCF	KEYBOARD CONTROL
VCF	MODULATION DEPTH 1
VCF	MODULATION DEPTH 2

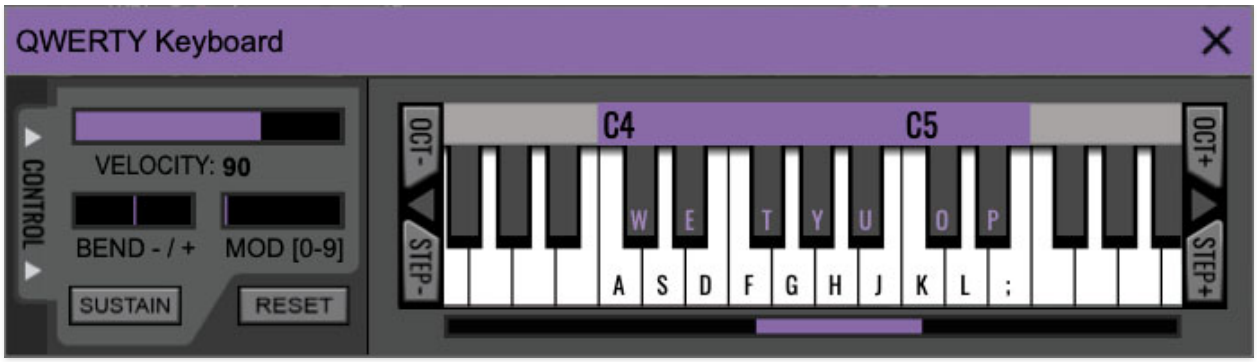
SECTION	PARAMETER

VCF	Fc (CUTOFF FREQ)
VCF	Q (RESONANCE)
NOISE	NOISE LEVEL

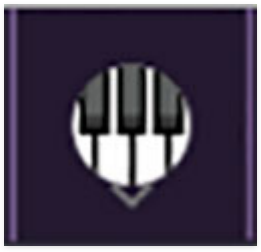
MPE Controller Devices

Following is a list of MPE controllers as of 2023. We're sure your Sweetwater rep is just dying to sell you one (and follow it up with 47 phone calls: "Hi, this is your sales rep, Seb... how are those mic cable velcro ties workin' out for ya?!?")

Expressive E - Osmose
Roli - Seaboard
Sensel - Morph
Joué Music - Joué Play
Keith McMillen Instruments - K-Board Pro 4
Haken Audio - Continuum Fingerboard
Roger Linn Designs - Linnstrument
Artiphon - Instrument 1



Octave Cat can be played by clicking its onscreen keyboard with a mouse or trackpad, but if you don't have a MIDI keyboard attached to your computer, there's a better way - your computer's QWERTY computer keyboard can be used to play notes. We call this the "musical typing keyboard," or "MTK." Following is a list of MTK keyboard modifiers and functions:



Opening and Closing the MTK - Click the the circular keyboard icon in the top toolbar. To close the MTK, click the keyboard icon in the top toolbar, or click the *X* in the top right corner.

Play Notes- To trigger notes, press the corresponding computer keyboard key or mouse click the onscreen keys.

Adjust Currently Visible MTK Range- Slide the purple scroll bar horizontally to adjust the currently visible keyboard range.

Adjust Overall Visible Keyboard Range- Clicking and dragging the right edge of the MTL window allows the overall size of the window to be adjusted. This lets you view more or less of the onscreen keyboard. Note that the MTK window's borders cannot exceed the overall outside dimensions of the Miniverse window.

Shift Range Up/Down Octave- Click the *OCT-* and *OCT+* buttons at the top left and right of the onscreen MTK. The current range is displayed above the keyboard.

Shift Range Up/Down Semitone- Click the *STEP-* and *STEP+* buttons at the bottom left and right of the onscreen MTK. The current range is displayed

above the keyboard.

Hide/View Controllers- Clicking *CONTROL* at the far left hides and displays velocity, bender, mod, and sustain control parameters. Hiding the control view makes more space available for the keyboard.

Pitch Bend- To pitch a note or notes, press the + or - computer keyboard keys while playing a note. Notes will bend up to an octave. Notes can also be pitchbent by clicking the mouse in the *Bend* area.

Mod Wheel- To add mod wheel modulation, press the number keys from *0-9* (above the character keys) while playing a note. The modulation amount will vary from none (*0*) to full modulation (*9*). Note that modulation will "stick" at the selected number; to disable modulation, click the *0* key. Mod can also be engaged by clicking the mouse in the mod bar area.

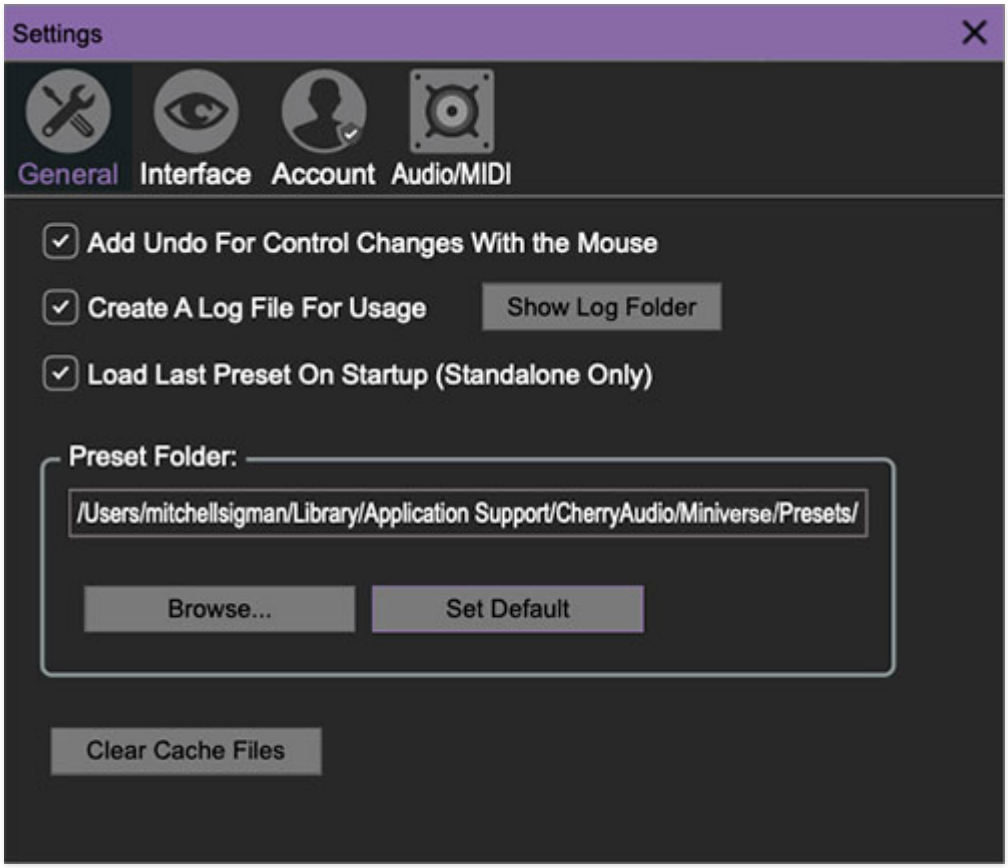
Sustain- The *Sustain* button mimics the functionality of a standard sustain pedal. Click the [TAB] key to engage sustain, or [SHIFT]+[TAB] to lock it. The *Sustain* button can also be engaged by mouse clicking it.

Reset- Initializes all MTK parameters including keyboard range and control parameters.

Settings

Clicking the settings gear opens a window with multiple tabs for configuring various "under-the-hood" settings. These are mostly set-and-forget kind of parameters - all the stuff you'll want to tweak is on the front panel, as it should be!

General

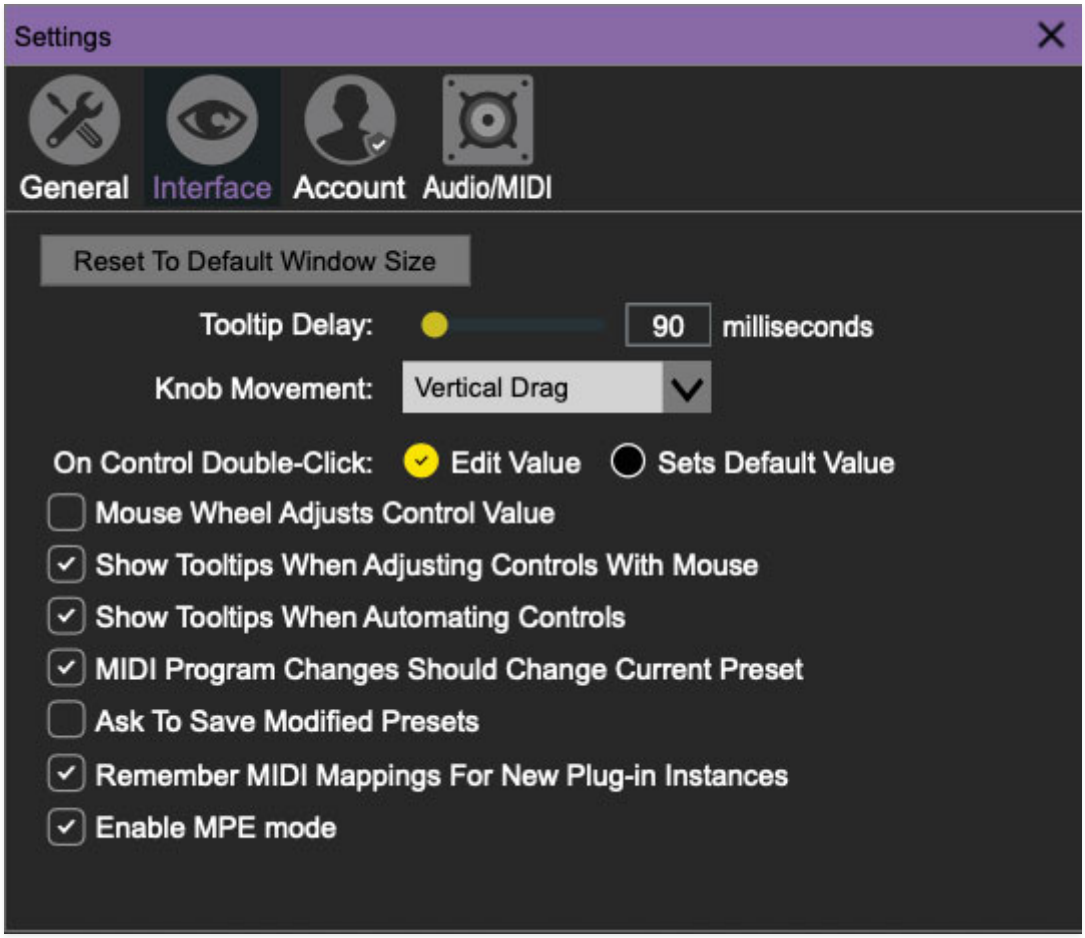


- **Add Undo For Control Changes With the Mouse**- Enabling this allows undo of knob/slider/button adjustments. You'll want this on if you want the ability to undo all aspects of patch editing and programming.
- **Create A Log File For Usage-** This creates a text doc of all of The Cat's internal and routines during use. It is mainly intended for our tech staff should you experience any issues. Clicking *Show Log Folder* opens the folder containing Cat log file docs.
- **Load Last Preset On Startup (Standalone Only)**- Automatically loads the last preset used when The Cat standalone version is started.
- **Preset Folder-** Displays the current location of The Cat's sound presets. This can be changed by clicking and typing in the field.

- **Browse...** - Displays the current location of preset folder in the file manager.
- **Set Default-** Sets the current displayed *Preset Folder* path as the default location

- **Clear Cache Files-** Deletes all log files, temporary sounds, and the image cache.

Interface



Allows customization of The Cat’s user interface settings.

- **Reset To Default Window Size-** Resets the The Cat workspace to default size. Use this to reset the window size if the window somehow becomes too large for your display and can't be resized (pretty sure we fixed that bug a while back though!).
- **Theme-** This popup menu lets you choose between original "Mk 1" or the later "Cat SRM" appearance.

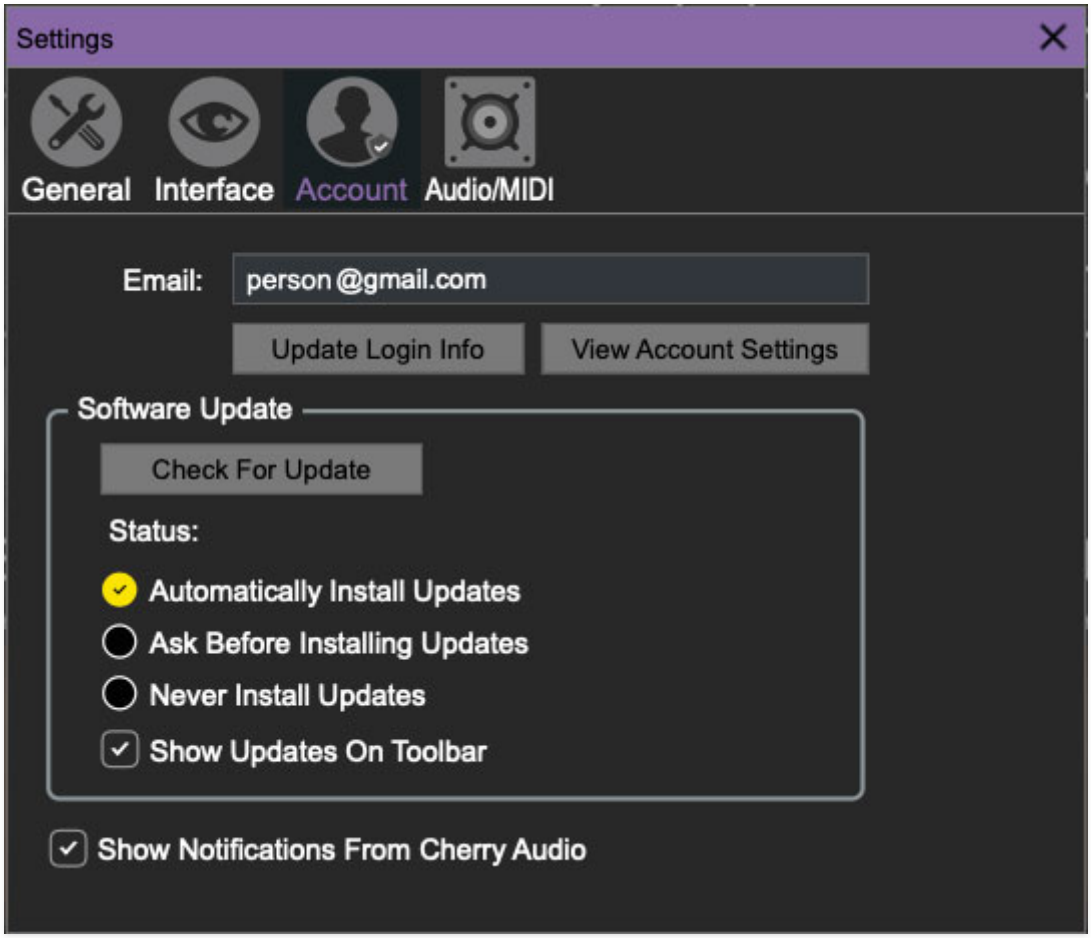
- **Tooltip Delay-** Tooltips are those informative bits of text that pop up when hovering over a control (go ahead and try it, we'll wait...). The *Tooltip Delay* setting defines how long you must hover before the tooltip pops up.
- **Knob Movement-** Defines which how mouse movements related to turning onscreen knobs. It defaults to *Vertical Drag*, but can be changed to *Horizontal Drag*, or *Rotary Drag* if you're one those folks that cut their teeth on the *Steinberg Model E* VST back in 2000.
- **On Control Double-Click**- Defines what happens when the mouse is double-clicked on a control. If *Edit Value* is selected, an exact number can be entered by typing the number and hitting [ENTER] or [RETURN]. If *Sets Default Value* is selected, double-clicking a control resets it to its default value.
- **Mouse Wheel Adjusts Control Value-** Enabling this lets you adjust knob, slider, and switch values by moving the mouse wheel. This works great with a standard mouse wheel, but you'll want to disable it if you're using an Apple Magic Mouse (which will move the control AND scroll the window).
- **Show Control Tooltips When Adjusting Controls With Mouse-** Displays parameter tooltips/values when the mouse is hovered over a control or as a control is moved with mouse clicked.
- **Show Tooltips When Automating Controls-** Displays parameter tooltips/values next to controls any time a control is changed, i.e. if a control is moved via an assigned MIDI controller or a *Perform* panel knob, etc.
- **MIDI Program Changes Should Change Current Preset-** Allows MIDI program change messages to change Cat patches.
- **Ask To Save Modified Presets-** This opens a dialog window asking if you'd like to save changes if a patch has been edited and a new patch is selected. If you're the type that likes to click through presets and tweak a control here and there, it can be annoying to have a window pop-up asking if you'd like to save every time you switch presets - if you're that person, keep this off.
- **Remember MIDI Mappings For New Plug-in Instances**- When enabled, The Cat remembers all global MIDI Tab controller settings.
- **Enable MPE mode**- Allows The Cat to properly receive MIDI control data from MPE controllers. MPE is short for "MIDI Polyphonic Expression." It's a

specialized MIDI protocol enabling multidimensional controllers for controlling multiple parameters of individual notes, and it requires a special type of MIDI/USB controller.

Do not use enable MPE mode if you don't have a proper MPE controller, because The Cat will become unruly, claw the furniture, pee on the rug, etc.

Check out the **Using MIDI Polyphonic Expression (MPE)** section for more information..

Account



Settings for your personal login information and account.

- **Email**- Displays the email address of the current login.
- **Update Login Info**- No, this isn’t a place for news and tour dates for yacht rock superstar, Kenny Loggins. Clicking this opens the same email and password login screen you’ll see when initially launching Octave Cat.

- **View Account Settings**- This opens your personal account page on the Cherry Audio Store website containing information about modules purchased and more.

Software Update

- We often fix bugs and make improvements; below are options defining how Cat handles updates.

- **Check For Update-** Click this to see if an updated version of Octave Cat available.

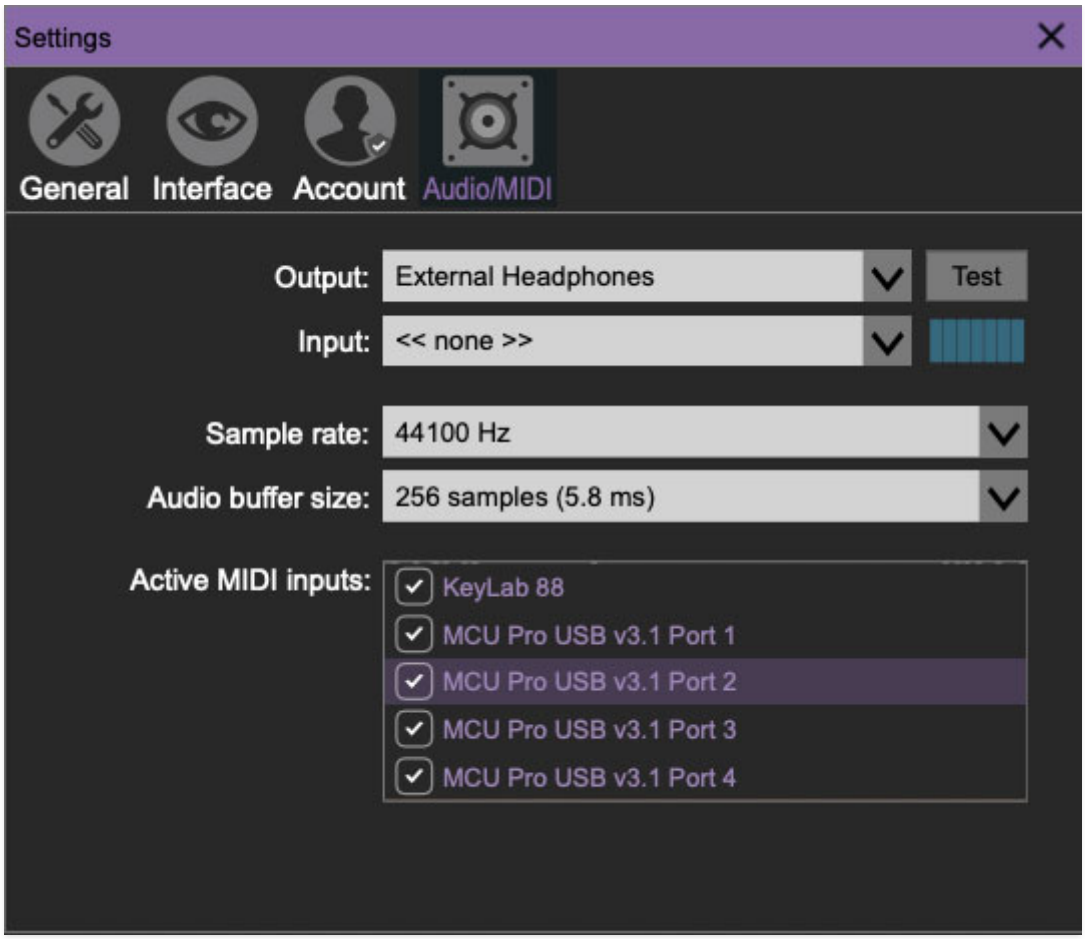
Status-

- **Automatically Install Updates**- Updates are automatically downloaded and installed.
- **Ask Before Installing Updates**- By default, Octave Cat automatically downloads new versions of modules when available. Checking this box defeats automatic updates and will ask if you'd like to install updates when they become available.

  We'll never make changes that can potentially "break" existing patches but we recommend enabling *Ask Before Installing Updates* if you're using The Cat for live performances or other "mission critical" situations.
- **Never Install Updates**- The Cat never automatically installs updates.
- **Show Updates On Toolbar**- Checking this will display an icon in the toolbar next to the logo letting you know there's an update available.

Show Notifications From Cherry Audio- We occasionally will fire off in-app advertisements; disabling this checkbox will hide them. We hate repetitive, annoying ads as much as you, so we won't use this feature too often. When we do, it'll be for something super cool (like a killer sale), so we recommend leaving it on.

Audio/MIDI



Not to be confused with audiomidi.com, where I used to work (which ranked a solid zero on the fun meter), these are settings for audio and MIDI hardware input and output.

This tab is only visible in the standalone version of Octave Cat.

- **Output**- Use this drop-down menu to choose a physical audio output source. This defaults to *Built-In Line Output*, i.e. your computer's onboard system audio, but you'll get better fidelity with an external professional audio interface. The biggest audible difference is usually reduced background noise or hum, but external audio hardware also offers greater flexibility in terms of number of inputs and outputs and built-in mic or low-level instruments pres (i.e. electric guitars). The *Test* button will produce a sine wave when clicked; this will help with troubleshooting, aka, "WHY THE HECK ISN'T THIS MAKING ANY NOISE?!?"
- **Sample Rate-** This sets The Cat's global sample rate. Lower sample rates offer better performance, but if you have a fast computer, high sample rates may offer slightly improved fidelity.
- **Audio Buffer Size**- As with any digital audio app, this defines performance vs. note latency, and will largely depend upon computer CPU

speed. A professional external audio interface will almost always exhibit better performance than “built-in” system audio. Lower settings will result in less latency (in the form of faster response to notes played), but will increase the chances of audio gapping or crackling noise.

- **Active MIDI Inputs**- Enable MIDI input sources, i.e. MIDI/USB keyboards, pad controls, MIDI knob/fader control surfaces, etc. Check boxes to enable one or more devices. **If a MIDI/USB controller isn't working in standalone mode, make sure the appropriate box is checked here.** (We put this this piece of info *way* in the back of the manual, to make it extra challenging to figure out why things aren't working.)