# Max for Cats CatStretch

CatStretch is a unique timestretching Sampler



CatStretch allows to playback any sample polyphonically and stretch it to the point of infinite freeze in order to achieve extreme sonic results.

General Operation:

Load CatStretch on an Ableton MIDI track and drop a sample ontu the 'Sample Drop Area'.

Now play some MIDI notes on your MIDI controller and make yourself familiar with the various controls and their effect on the sound.

The main view of CatStretch 3:



### Overview



CatStretch is up to 6 voice polyphonic, this means you can play a chord with different 6 simultaneously.

Also, it offers 2 different Filters:

A classic analog-style multimode filter with

Lowpass (LP), Bandpass (BP), Highpass (HP) and Notch (NC) mode.

The second filter can be found in the 'Spex' tab (see the following page).

Further you have the 2 envelopes on the main page for Amplitude and Filter in a classic Attack-Decay-Sustain-Release style.

When playing a sample, experiment with the Pitch and Scrub settings to find the right sound.

The Tabs of CatStretch 3:



This tab lets you access the spectral filter.

This is a very special filter as it lets you draw your own filter shape.

On the left side of the draw area you have access to low frequencies and the draw areas spans the whole frequency spectrum until the rightmost section where high frequencies are affected. The more black area you see in the draw section, the more you have removed frequencies in the spectrum, depending on the position of the 'Filter' dial.

## 2. Mod

Opens the Modulation Matrix and the 2 Modulation LFOs.

SPEX MOD FX Freq 4.34 Hz	EQ Freq rand T	M-ENV SYSTEM
OFF <b>v</b>	<b>34.6 %</b>	Stretch
OFF <b>v</b>	0.00 %	Pitch
OFF ▼	0.00 %	Scrub
OFF 🔻	0.00 %	Filter
OFF V	0.00 %	Spex

The 2 LFOs and the Modulation Envelope can target up to 5 targets.

Each LFO offers 7 different Waveforms

The LFO Waveforms:



The Modulation source chooser lets you choose between OFF, LFO1, The sum of LFO1 and 2, the multiplier of LFO 1 and 2, just LFO 2 or the Multiplier of LFO 1

breakpoint Envelope.



# 3. FX

This Tab contains the 3 effects of CatStretch:

a) Grain



Grain is a granular effect which offers a variety of options:

- Grain size,
- Grain Pitch Coarse
- Fine Tuning
- Grain readout direction

- "Voices" = how many grains will be played simultaneously. The more, the more expensive this effect is.

- Position sets the playback position within the grain buffer
- Delay Time
- Delay Feedback
- Grain effect dry/wet amount

# b) Chorus



Chorus is a 3 switch Chorus where position 1-3 offers

soft-to-heavy chorusing. And additional volume controls can help with some gain boost if needed. Dry/wet is does let you control the amount of the effect.



Plate offers a so-called Plate reverb to position your sound in a larger space. Reverb Size changes the size of the space, Decay defines how long the Reverb tail lasts while damping cuts off high frequencies to make the sound appear more 'dark'. Diffusion controls the amoutn of diffusion applied to the reverb tail.

# 4. EQ

This Tab offers a fully parametric 3 Band Eq with Spectrum view.

# The EQ view:



In order to adjust the controls, either move the 1,2,3 labeled EQ controls or the corresponding Freq-Gain and S (Sharpness or Q) controls.

## 5. The M-Env

Access the Multi-Breakpoint Envelope ("M-Env") with this tab.



Create Breakpoints by clicking on the yellow line. Breakpoint can be moved simply by dragging them with the mouse. A line segment can be curved by holding down the alt/option key and moving the mouse up or down. The Envelope is, as the ADSR envelopes, triggered with a MIDI note and the overall time can be adjusted with the 'time' parameter. the Grid and Snap parameters are useful for creating rhythmic envelope shapes.

### 6. System

The System tab offers various functions to change the behaviour how either the timestretch algorithm itself or it's readout behaves.



The interpolation section offers three modes:

Hanning, Sinc and Gaussian. These are specific shapes used for interpolation when timestretching and they result in a different quality and sound. The Sinc and Gaussion parameters can be 'dialed in' while Hanning is a static function - which is also the default as it usually delivers the best results for most material.

The Character section offers Smearing and Jitter, both affect the readout of the timestretch algorithm and can be used as musical parameters. Spreading affects the voice distribution of CatStretch - each new voice triggered by a new MIDI note will be randomly placed in the stereo spectrum.

Enjoy CatStretch 3!