np.LiveDeck
User's Manual

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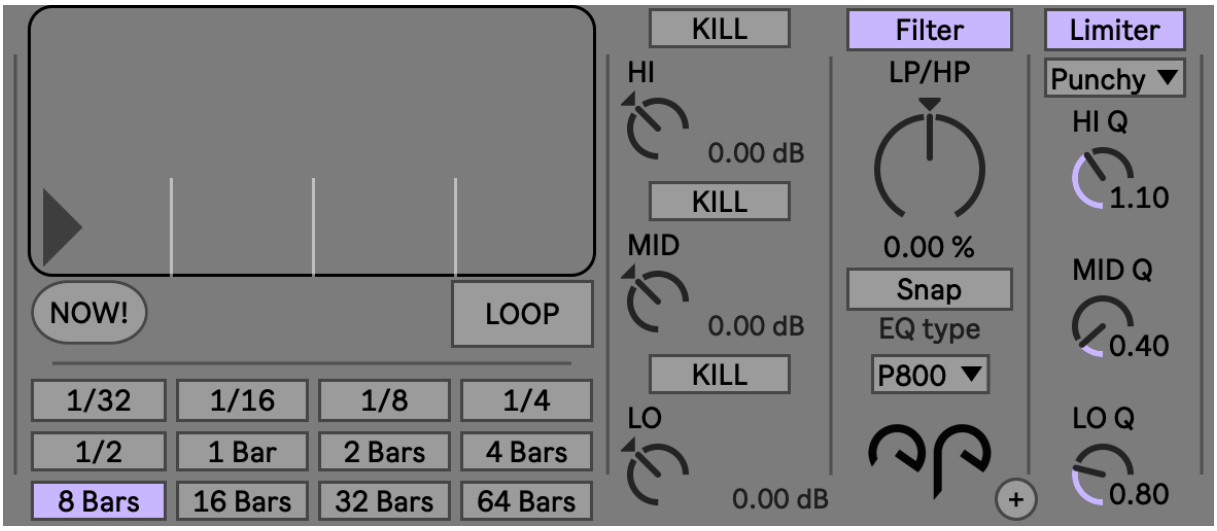


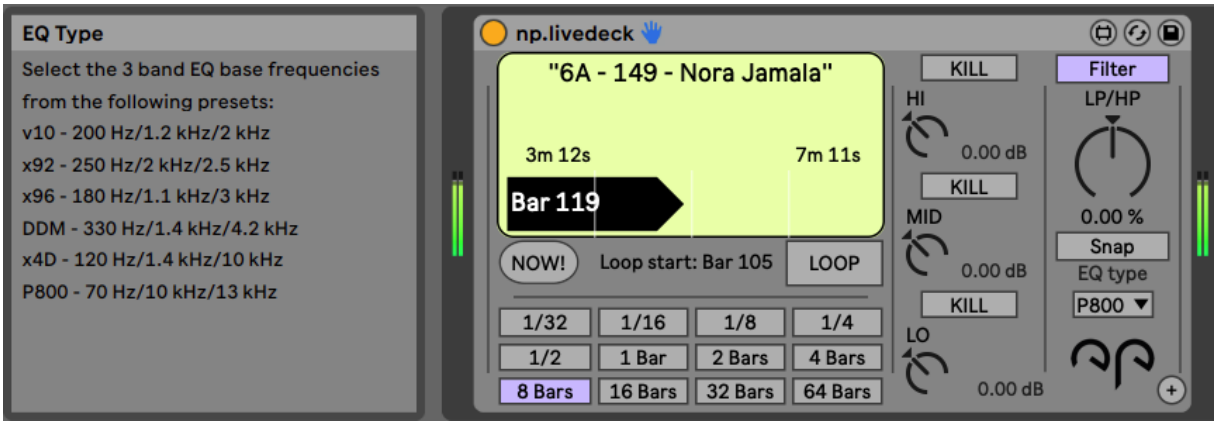
LiveDeck is a M4L audio effect and Live API utility tool that features a three-band EQ, a combo filter (LP/HP), a simple limiter and a looper section that always controls the currently playing warped audio clip on Track in Live's Session View.

The intention when developing this plugin was to imitate a standard DJ mixer that features a three-band EQ with kill switches and a filter that is often controlled by a single dial - turning this dial counter-clockwise from the middle position applies a Low-Pass filter while turning this knob clockwise (from the middle position) applies a High-Pass filter.

The user interface elements are all automation-enabled and MIDI mappable, however the main intention of the device is to be used live with mapping a MIDI controller to the GUI.

Three-band EQ

Similar to other DJ software, LiveDeck enables the user to select between the built-in EQ presets to choose the LO, MID and HI band frequencies. The user can select from the following presets:



v10 - This EQ preset references a DJ mixer from a well-known *Japanese* manufacturer.
The three bands are the following: **LO** 200 Hz / **MID** 1200 Hz / **HI** 2 kHz

x92 - This EQ preset references a DJ mixer from a well-known *British* manufacturer.
The three bands are the following: **LO** 250 Hz / **MID** 2000 Hz / **HI** 2.5 kHz

x96 - This EQ preset references a DJ mixer from a well-known *British* manufacturer.
The three bands are the following: **LO** 180 Hz / **MID** 1100 Hz / **HI** 3 kHz

DDM - This EQ preset references a DJ mixer from a well-known *German* manufacturer.
The three bands are the following: **LO** 330 Hz / **MID** 1400 Hz / **HI** 4.2 kHz

x4D - This EQ preset references a DJ mixer from a well-known *British* manufacturer.
The three bands are the following: **LO** 120 Hz / **MID** 1400 Hz / **HI** 10 kHz

P800 - This EQ preset references a DJ mixer from a well-known *Japanese* manufacturer.
The three bands are the following: **LO** 70 Hz / **MID** 10 kHz / **HI** 13 kHz

The **Q** values for each band are adjustable by the user, but their default values are **0.8 0.4** and **1.1** for *LO-MID-HI* respectively.

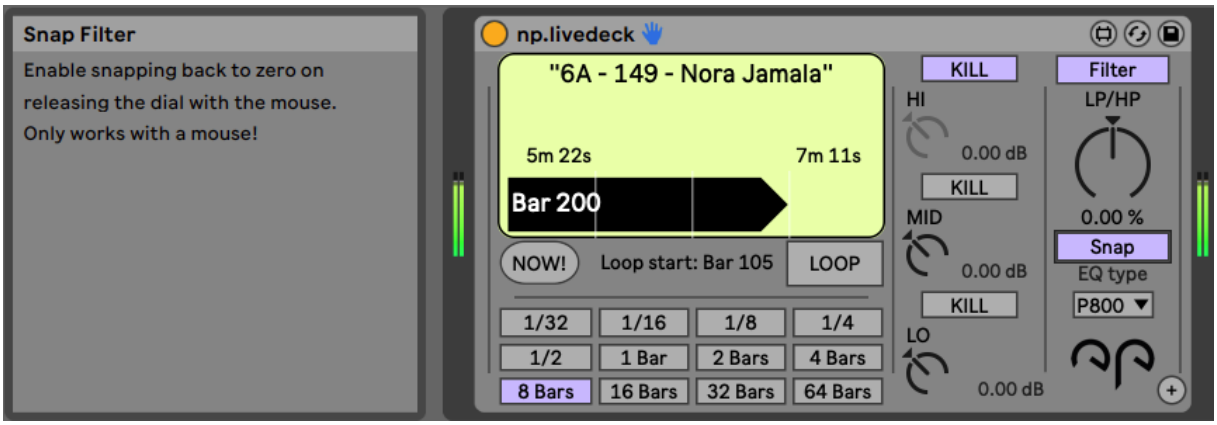
There is a **KILL** switch for each band, enabling it will apply *-60 dB* to the **LO** band, *-36 dB* to the **MID** band and *-48 dB* to the **HI** band and will deactivate the respective Gain dial(s).

Disabling the KILL switch will send out the current value from its respective Gain dial.

Combo-Filter

The device features a Combo Filter that is controlled by a single dial.
The Combo Filter is inactive when the dial is in the middle position and/or has the value of zero. The Combo Filter is also subject to the "Filter" switch state (this is for easier MIDI mapping purposes).

The user can enable "Snap" to automatically retract the dial (*in 10 ms*) to the value of zero, effectively switching the filter off with a mouse/touchpad click release. Please note that this only works with a mouse or touchpad cursor and nothing else!



Turning the LP/HP dial clockwise will apply a **Low-Pass Filter** to the incoming audio signal sweeping the Cutoff Frequency down from *8500 Hz* to *20 Hz*.

Turning the LP/HP dial clockwise will apply a **High-Pass Filter** to the incoming audio signal sweeping the Cutoff Frequency up from *0 Hz* to *8500 Hz*.

The LP/HP filter end frequencies can not be adjusted by the user in the current version.

Limiter

There a simple built-in limiter that only serves to limit the end signal at zero dB. The user can enable or disable the limiter and can select from the two available response modes - *Punchy* and *Smooth*.

Punchy response yields extremely short attack and release times, useful for transparent limiting, or to create loudness. However, if overused, intermodulation distortion may result.

Smooth response uses longer attack and release times. The result is still a fast look-ahead limiter, but with less intermodulation distortion and less punch.

Looper

LiveDeck also functions as a dynamic Live API utility tool that enables the user to loop specific parts of the currently playing clip of the given Audio Track in Live's session view.
Since the device always asks the Live API for the ID of the currently playing audio clip on track, mapping a MIDI controller the LiveDeck GUI enables the user to have a dynamic looping function.

The looper has a very simple interface and workflow: predefine the loop length and hit "*Now!*" to start looping from the given Bar. Bar count is always rounded down, so if you haven't yet reached i.e. Bar 72, your loop will always start at Bar 71.

Toggling the "*Loop*" button disables/enables looping. Please note that looping an audio clip in Live has only a single start and end marker, so turning the loop on after reaching loop end marker will make the playback jump back to the loop start marker and proceed playing towards loop end marker.

When looping is enabled, setting the length affects the loop immediately. When looping is disabled, length is used to predefine the loop length, which will be applied once the user hits "*Now!*". Looping will be set from that Bar in time for the predefined length by user, this overwrites the loop start and loop end points.

The user interface is responsive to the currently playing clip; LiveDeck will apply the clip colour to the user interface to help identify the currently playing clip (i.e. when launching the clip from a controller like the AKAI APC 20) on the given track.

The looping is disabled, playback progress is shown with a triangular pointy end, whilst looping makes the column to be chopped into a rectangular shape and blink, indicating that loop is currently active.