Each data point in a layer is a value from 0-127

In a Pitch layer, this represents a MIDI note

Pitch layer can be displayed as a chromatic value (11 rows per octave) or as a scaled value according to the force to scale setting (7 rows per octave)

In a Pitch offset layer this represents an offset to a MIDI note from -63 to +63 units where a value of 64 is zero offset

In a Modulation layer, this represents a CC value in MIDI or a 127th of full CV range when outputting a voltage

Noodlebox is a matrix based step sequencer with MIDI and CV/Gate connectivity. Rather than being a “song sequencer” that you might pre-arrange a performance in, Noodlebox is designed to inspire creativity through its limitations. In this respect it is much more like a knob-based analog step sequencer.

At the core of the Noodlebox are four separate **layers** numbered 1,2,3,4. Each of these layers is associated with a specific pair of CV and gate outputs, and can also be configured to output MIDI data

Each layer is a pattern made up of 32 steps. The musical measure per grid step can be set independently for each layer, but is the same for all steps in a layer.

The active steps of a layer are defined by a **loop window** of between 1 and 32 steps. Noodlebox is indended to allow quick and creative control of the loop window during live playing. Each layer has a loop window that is independent of other layers. The current step during playback is also independent for each layer.

Each layer can have between 1 and 4 **pages**. Pages allow you to quickly define variations of a pattern. All pages of a layer share the same loop window and musical measure per grid step. A layer can automatically cycle between pages (effectively allowing a layer to have up to 4 x 32 = 128 steps) or you can switch between them manually.

Layers can function completely independently of each other, or there are certain ways in which they can modulate each other

A chromatic pitch layer

A scaled pitch layer

Pitch layers are able to output MIDI notes. MIDI notes are output on

A chromatic modulation layer

A free modulation layer

A transpose layer is applied to the first lower numbered pitch layer

An overlay layer

## Pitch Layers

When editing pitch mode

A note value applies at every step in a layer.

Follow same approach as for transpose/mod layer

The pitch CV output for the layer will always reflect the pitch value of the current step unless a chance gate has been applied that nulls the step (in which case the previous CV output is kept)

Pitch CV can be edited separately from Gate

A pitch layer outputs a valid note pitch CV at all times, based on the last note step that was played. This will generally be the note specified at the current

A chance gate

A probability trigger

Pitch layers output MIDI note information when an **MIDI output channel** is defined for the layer

All layers are made up of a 32 x 128 grid of values

Scaled Pitch

Chromatic Pitch

Can operate in “A

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CV | GATE | CLONE | CLEAR | LOOP | PAGE | RUN | MENU |

CV

* Press: scroll CV point into view and show CV point info
* Hold + knob : turn a fill point into a CV waypoint, move a CV waypoint

GATE

* Press: copy gate info to paste buffer
* Click: toggle point on selected gate layer
  + Gate OFF->TRIG->OPEN
  + Glide OFF ON
  + Prob HI MED LOW
* Hold + knob: change selected gate layer

PASTE

* Click: paste content of paste buffer (CV OR current gate layer)

Probability

Clone:

Copies both the CV and gate information from one set of steps to another

Press and release CLONE to mark the point from which data should be taken. The CLONE marker appears on the display

Move the cursor to destination position, hold down CLONE and move the cursor to clone data from the original location

When the CLONE button is release, the clone marker is hidden

The clone marker can be hidden without performing a clone by pressing and releasing the CLONE button

To clone a single step, move the cursor to the step, hold down CLONE and move the encoder

Page Button

Press and release the PAGE button to indicate the current layer (1/2/3/4) and page (A/B/C/D)

Hold the PAGE button and turn the knob to select the number of active pages; A, AB, ABC, ABCD. Changes are not applied until the button is released. If the number if pages is reduced, the extra pages are deleted. If the number of active pages is reduced to zero then page A is also cleared. If the number of active pages is increased, any new pages copy the last previously existing page.

If a page is currently playing when it is deleted, it will continue to play to completion.

Hold PAGE and press LOOP to select page playback mode

IMM

CUE

INC

Page Playback

When multiple pages exist, it is possible for the sequencer to be playing a different page in a layer than that which is being displayed. In this case the position in the other page is highlighted in the time line but the notes and gates do not light up. This allows changes to be made to a page while a different page is still playing

Cue Mode

PAGE + LOOP toggles cue mode on and off. Press it once to view the current setting and again to toggle it.

OFF: In this mode, the play position always relates to the displayed page. When PAGE+(1/2/3/4) is pressed and a new page is selected, the new page continues to play from the current playback position.

ON: In this mode, the displayed page and the playing page are independent from each other. Now PAGE+(1/2/3/4) selects the page to be viewed and LOOP+(1/2/3/4) selects the page to play. The new page starts to play only when the current page has completed. Up to 16 pages can be cued for playback by pressing multiple (1/2/3/4) keys one after the other before releasing the LOOP key. These will play indefinitely until the selection is changed or cue mode is turned off.

This mode plays pages in sequence, so each time a page finishes playing, the next existing page starts to play. This mode is cancelled as soon as any LOOP+(1/2/3/4) is pressed however it can be reinstated by pressing PAGE+LOOP

When the sequencer is stopped and restarted

Loop Button

Press and release Loop to set the play position to the cursor position (and play from the current page)

Hold Loop and turn the encoder to set loop points for the current page (and for all pages if X option is set). Move the cursor to the position where the loop starts before pressing Loop. The display shows how many steps are selected. If the start point is to the right of the end point then the selected loop plays in reverse.

Hold Loop and press buttons 1/2/3/4 to set up a

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| --- | --- |
|  |  |
| CV+GATE | Encoder: scroll entire display |
| CV+CLONE | Encoder: fine adjust in modulation mode |
| CV+CLEAR | Encoder: horizonal shift |
| CV+RAND | Encoder: vertical shift |
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| GATE | Click: Toggle gate point  Encoder: change between gates and ties |
| GATE+CLONE | Encoder: Add gate point to all steps |
| GATE+CLEAR | Encoder: Clear gate points from all steps |
| GATE+RANDOM | Encoder: Set chance of gate point |
|  |  |
| CLONE+PAGE | Encoder: select destination |
| CLONE+LAYER | Encoder: select destination |
| CLONE+LOOP | Encoder: Toggle whether same loop settings apply to all pages |
|  |  |
| CLEAR+LOOP |  |
| CLEAR+PAGE | Encoder: confirm clear of current page |
| CLEAR+LAYER | Encoder: confirm clear of current layer |
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| RANDOM | Click: jump to a random point in the layer |
| RANDOM+LOOP | Encoder: Confirm Randomize loop points |
| RANDOM+PAGE | Encoder: Randomize page points incrementally |
| RANDOM+LAYER | Encoder: Confirm randomization of entire layer |
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| LOOP | Click: Set play position to current page and step |
| LOOP + (1/2/3/4) | Cue page for playback in advance mode |
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| PAGE+(1/2/3/4) | Change active page for editing |
| PAGE+LOOP |  |
| PAGE+RAND |  |
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| LAYER | Click: menu  Encoder: Mute layer |
| LAYER+(1/2/3/4) | Click: Change active layer for editing |
| LAYER+RAND | Encoder: Toggle data fill mode |
| LAYER+LOOP | Encoder: Toggle loop per layer |
| LAYER+PAGE | Encoder: Set page advance mode |
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