

Kirnu v1.0 – Manual

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MIDI learn

All the knobs have MIDI learning ability which can be used for manipulating values in realtime.

Step rate and step rate type also have MIDI learn functionality.

How to use:

- Right click on the knob.
- Select MIDI learn from popup menu.
- Move some control from your MIDI device or from DAW
- To unlearn the control select MIDI unlearn from the popup menu



Incoming note led

Lights everytime new note is received by Kirnu. It also behaves as a 'panic' button when double clicking it i.e. all notes are stopped and the midi engine is reset.



Midi in/ Midi out ports

CC1/CC2 numbers

T can be used to 'teach' selected CC value to a VST instrument following Kirnu



Step rate

Defines the rate at which new notes are generated. If rate is 1/16 new note is generated at every 1/16 note

Step type:

Defines the initial length of the note

Normal	Note length is not modified
Triplet	Note length is 2/3 times original note
Dotted	Note length is 1.5 times original note



Gate

Lengthens or shortens the note length. The value is relative to initial note length.

If initial note length is 1/16 and gate is 100%, then the played note length is 1/8 (= 2*1/16)

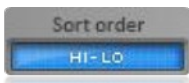
Note List

To understand better how the arpeggiator works one must understand the concept of note list:

Notelist is list of notes from where notes are taken and played by arpeggiator.

Table below shows how different controls modify the note list and which order the notes are played from it:

Octaves	Transpose	Scale	Notelist notes	Played Notes
1	0	Off	C3 E3 G3	C3 E3 G3,C3 E3 G3
2	0	Off	C3 E3 G3	C3 E3 G3,C4 E4 G4
2	1	Off	C3 E3 G3	C#3 F3 G#3,C#4 F4 G#4
2	1	Major C 0	C3 E3 G3	



Direction defines the order notes are played from notelist

Up	Notes are played from the beginning of the notelist and started again from the beginning after the last note of the notelist is played
Down	Notes are played from the end of the notelist and started again from the end after the last note of the notelist is played
Up Alt	Notes are played from the beginning of the notelist and played backwards after the last note of the notelist is played
Down Alt	Notes are played from the end of the notelist and played backwards after the last note of the notelist is played

Sort order defines how notes are sorted to the note list

Hi-Lo	Notes are sorted from highest note to lowest note
Lo-Hi	Notes are sorted from lowest note to highest note

As Played	Notes are sorted in order they are played
Reversed	Notes are sorted in reversed order they are played
Custom	<p>With custom mode, the user can define the custom sort order.</p> <p>When * is selected actual note from notelist is played</p> <p>When S is selected the custom sort mode is finished</p> <p>Number presents the index of the played note from note list.</p> <p>For example: If notelist is C3 E3 G3 and number is 1 and note to be played is the first from the list (C3) the actual note played is E3.</p> <p>Ex 2. Note list C3 E3 G3 custom mode 2 * -2 S Notes Played: G3 E3 C3</p> <p>Ex 3. Note list C3 E3 G3 custom mode 2 * * S Notes Played: G3 E3 G3</p>

Examples:

Direction	Note list	Sort order	Notes Played
Up	C3 E3 G3	Lo-Hi	C3 E3 G3, C3 E3 G3
Down	C3 E3 G3	Lo-Hi	G3 E3 C3, G3 E3 C3
Up	C3 E3 G3	Hi-Lo	G3 E3 C3, G3 E3 C3
Down	C3 E3 G3	Hi-Lo	G3 E3 C3, G3 E3 C3



Hold

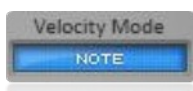
When enabled, notes are not removed from the notelist when released. When the first-played note is pressed down, user can add more notes to the note list. When the first-played note is released the note list is completed and no new notes can be added to it. The next note played is the first note of the new note list.



Swing

Specifies how much swing is applied to the notes i.e. how much 2nd and 4th note is delayed.

The maximum delay is 50% of current length, as specified by step rate.

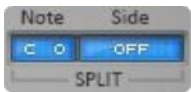


Velocity mode

Specifies the velocity of the played notes

Mode	Velocity
Note	Note's own velocity
First	All notes in the note list have velocity of the first note in the note list
Last	All notes in the note list have velocity of the last note in the note list

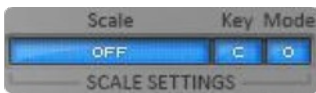
Average	All notes in the note list have velocity which is average velocity of all notes
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Split

'Note' specifies the note from where the keyboard is split into two parts.

Side specifies which side is to be arpeggiated



Scale settings

Scale:

If scale is selected, then all notes belong to this scale.

If note in notelist doesn't belong to specified scale the nearest note in the scale is chosen.

Key:

The key of scale

Mode:

The mode of scale

For example: The Major scale modes

0 = Ionian

1 = Dorian

2 = Phrygian

3 = Lydian

4 = Mixolydian

5 = Aeolian

6 = Locrian



Octaves

Specifies the octaves which are generated to the note list

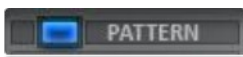
For example if initial notes are C3 E3 G3 octaves is changed to 2 the generated note list is C3 E3 G3, C4 E4 G4



Transpose

Specifies the amount of semitones every note is transposed to.

Transpose is applied after the scale engine so the transposed note isn't necessary in the chosen scale.



Pattern

If pattern is off the played notes are not affected by settings at pattern area



Reset On new note

Pattern is reset and started from beginning every time new note is played

Note list

When enabled note list is reset every time when pattern is reset

For example if Pattern Steps is 3 and notes in note list are C3 E3 G3 A3

Note list reset enabled: Played notes -> C3 E3 G3, C3 E3 G3, C3 E3 G3 ...

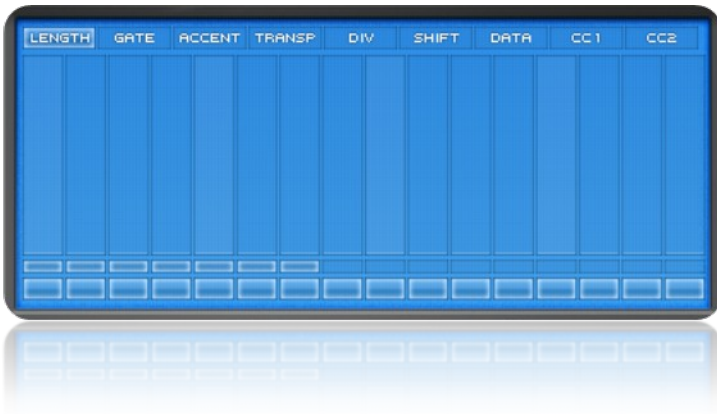
Note list reset disabled notes -> C3 E3 G3,A3 C3 E3, G3 A3 C3, E3 G3 ...

On beat

Pattern is reset on beat specified by the beat value.

Steps

Number of pattern steps



Pattern view

- Dragging the mouse within a bar changes bar value in little steps
- Double clicking step bar value is set to default value.
- Right mouse click pops up the reset menu which can be used to reset all the step bars to default value in current control view.

First row from bottom can be used to turn pattern steps on or off. When step is off it is not played but note list is advanced.

Length

With length you can multiply the the note length of the step. Value is relative to the current rate. For example if rate is 1/16 and length is 2 the actual note length is 1/8

Gate

With gate you can specify the the note length of the step. Value is relative to the current rate and note length. For example if rate is 1/16 and length is 2 and gate is 50 the actual note length is 3/16

Accent

With accent user can emphasize certain notes. Accent affects on note velocity. If note's accent is raised it's velocity is also rised and other note's velocity is lowered when needed.

Transpose

Specifies the amout of semitones every note is transposed to.

Transpose is applied after the scale engine and global transpose so the transposed note isn't necessary in the chosen scale.

Div

The note is divided into smaller parts defined by div value

Shift

Note is shifted left (negative values) or right (positive values) by amount specified by shift value.

This enables user to create custom swing patterns.

Data:

Off – Arp plays nothing and notelist is not advanced.

Prev - Arp plays same note it played in previous step

1st – Arp plays the first note from the note list

Last - .Arp plays the last note in the note list

Hi - Arp plays the highest note in the note list

Low - Arp plays the lowest note in the note list

Chrd - Arp plays chord constructed from all of the note list notes

Rand - Arp plays the random note from the note list

CC1/CC2

User can specify CC values sent outside from arp.