

Phrase

Key Triggered Sequencer Player

Rack Extension for Reason



USER MANUAL
version 1.3.0

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1. Introduction

Phrase is a player device for the Reason rack which specializes in the creation of musical motifs and phrases. A great tool to inspire new ideas for melodies, bass-lines, chord progressions, even drums and percussion parts. The programming interface does away with the traditional piano roll to get results fast. Thanks to several editing options, it's easy to create or modify sequences in just a few clicks. No drawing of notes required.

At the core of the device lies a 16 step sequencer which is triggered when you play a note. Like an arpeggiator, you trigger it with a keyboard or other MIDI device capable of sending notes, but you can also use a note track in Reason. With every new note, the sequence is automatically transposed and adjusted based on the step parameters. If you hold down more than one note at once, you can get different results from the same sequence just by changing the order in which the notes are played.

Each step of the sequence has the following parameters:

1. Step On with Trigger Probability: steps can be turned on or off. When a step is turned off, it acts like a note rest. Each step can be assigned a trigger probability.
2. Gate Length: there are 4 settings which determine the note length relative to the step duration
3. Velocity: the velocity of the outgoing note for the given step
4. Duration: independent for each step, from as short as 1/64th to as long as 1 bar
5. Transpose: incoming notes can be transposed up or down from the original pitch within a 4 octave range
6. Play Mode: when more than one note is pressed at the same time, this parameter determines which of the held notes is played

The step parameters can be set individually or for an entire row at once. Each parameter type has its own edit menu with various options for altering the values. For some parameter types, there are built-in presets which are great starting points for generating new sequences quickly.

Similar editing functions are also available at the sequence level, where all parameters for all steps can be altered at once. A customizable randomization engine can help spark new ideas. To keep things in check, the note correction algorithm will force all outgoing notes to the chosen key and scale. In addition, you can automatically create entire phrases of the desired length in just a mouse click for instant inspiration.

Finally, you can have up to 4 sequence variations per patch. These can be switched live during play or linked together to create phrases longer than 16 steps.

Phrase is fast to program, fun to use and it encourages experimentation. Try it out and see for yourself!

2. Overview

Here is a quick overview of the main interface elements. For more details on each section, refer to later parts of this manual.



1. Main interface for programming the sequence. Each step has a set of parameters which can be set independently from the rest. These are described in details in section 3.2
2. Programmable displays for setting the number of steps in the sequence, the starting position offset, and the direction
3. Clicking on one of the labels opens an "Edit" menu for that specific parameter. The editing functions affect the selected parameter only for those steps which are included between the "Start" and "End" step locators shown with an "S" and "E" labels above the main sequencing area
4. Clicking on the "Seq Edit" label opens the edit menu for affecting all the parameters of the sequence which are included between the "Start" and "End" step locators. The black button remembers the last editing function which was performed from the edit menu and can be used to speed up successive edits. The orange button is used to set a scale and key for the correction of outgoing notes.
5. There are 4 sequence variations that can be selected during playback by using the numbered buttons. Clicking on the "Variation" label opens an edit menu with operations like duplicate and reset.

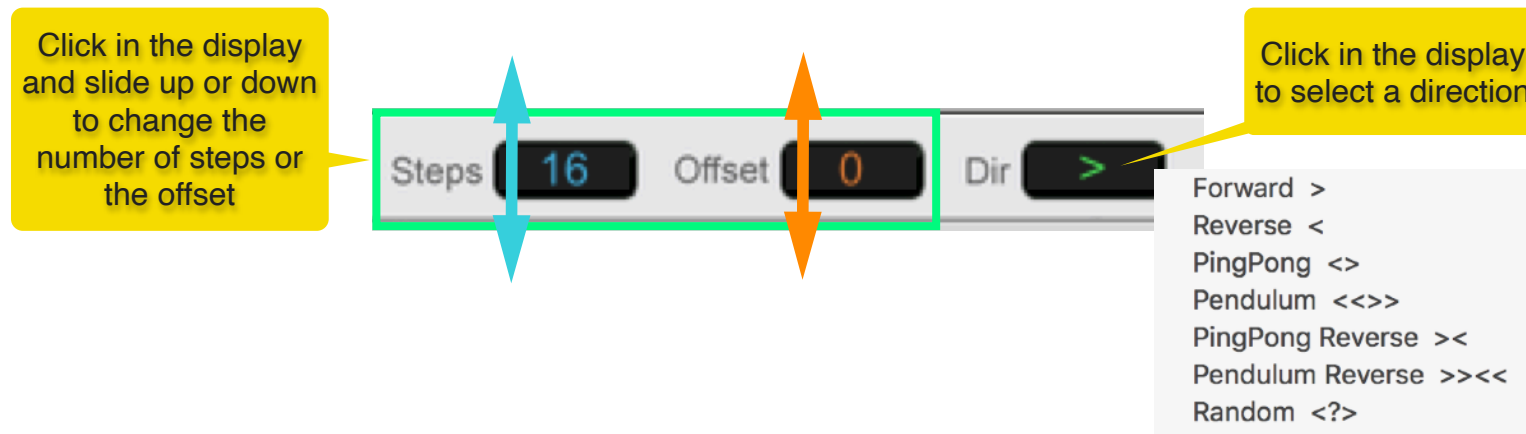
3. Usage

Phrase is a player device and hence it needs to be instantiated on top an instrument. This can be a synth, a sampler, a drum machine or anything which receives notes and is able to make noise!

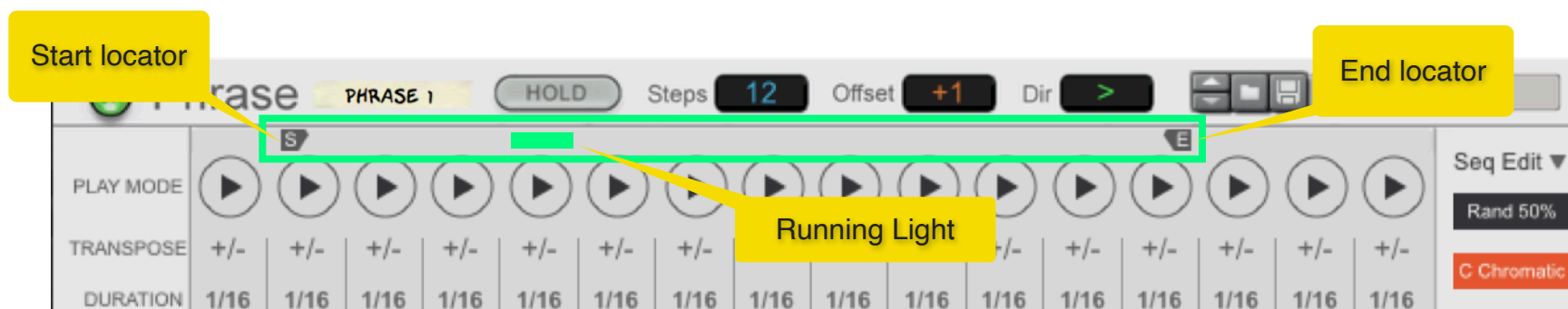
Just like the native Reason RPG-8, a sequence in Phrase is triggered by pressing a key on a MIDI device or by notes programmed on a track. Ideally you have a MIDI device connected to your computer which you can play. As you press a key, the selected note is played in a sequence according to the parameters set for each of the step, for example the note duration, the note velocity and the note transposition. If you have more than one key pressed at the same time, then the way the notes are played depends on the "Play Order" parameters. Here you can get some really interesting results just by pressing the same keys in a different order each time.

3.1 Sequencer basics

3.1.1 Setting the Number of Steps, Offset and Direction



When changing the number of steps or the offset, you can see which section of the sequence is selected by looking at the sequence start and end locators right above the main sequencing window. When the sequence starts playing, you will see a running light between the locators indicating the currently playing step.



As far as the directions are concerned, similar ones can be found in other Reason devices, for example Thor's step sequencer, and they should be familiar to the reader. Nonetheless, here is a brief description:

Forward > sequence proceeds from start to end point, and jumps back to start point after reaching the end point

Reverse < sequence proceeds from end to start point, and jumps back to end point after reaching the start point

PingPong <> sequence proceeds from start to end point, then immediately reverses its direction

Pendulum <<>> sequence proceeds from start to end point, plays the end step twice and it reverses its direction

PingPong Reverse >< same as Ping Pong, but starting from the end step in reverse direction

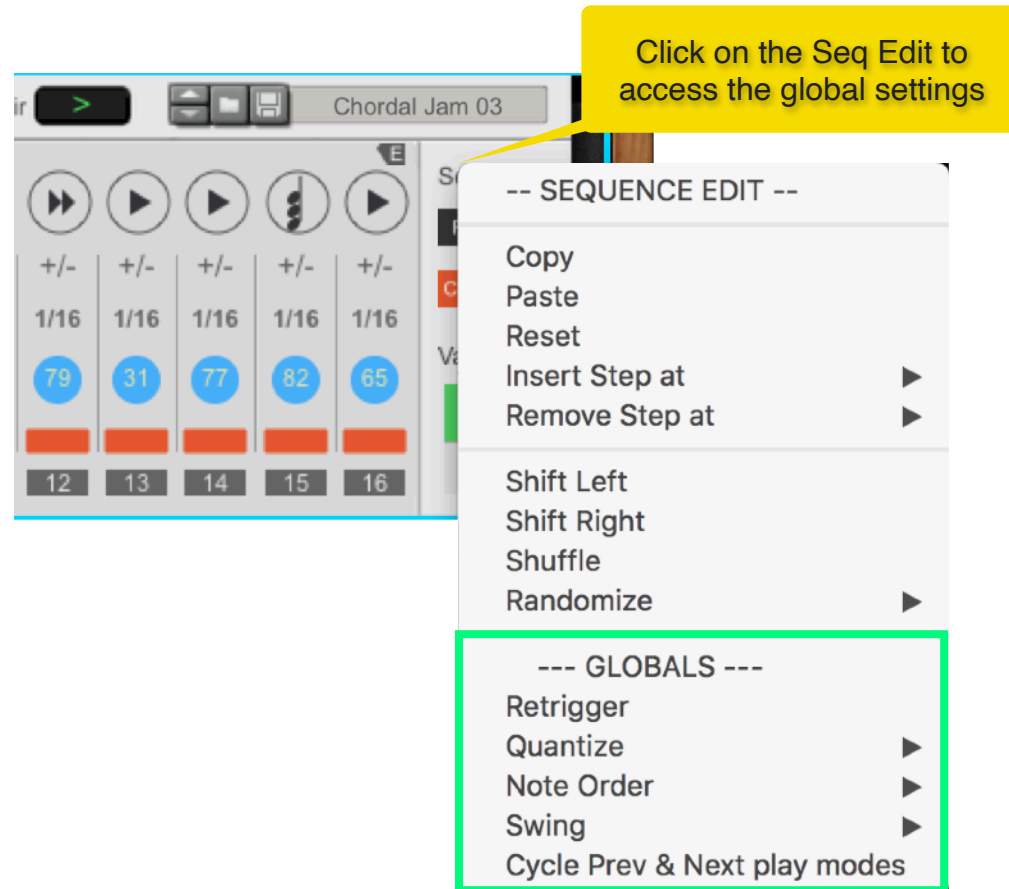
Pendulum Reverse >><< same as Pendulum, but starting from the end step in reverse direction

Random <?> sequence proceeds in random order between start and end steps

Random Walk <wlk> sequence steps in a random walk fashion between the start and end locators

3.1.2 Sequence Global Parameters

The global parameters affect how the sequence is played. There are 4 global parameters and these can be accessed by clicking on the "Step Edit" label as shown below



✓ Retrigger

if Retrigger is enabled, pressing on a new key while another key is held down will restart the sequence from its start position. If Retrigger is disabled, pressing a new key while another one is held down will not restart the sequence which continues to play from its current position, also known as **Legato**.

Quantize ▶

- ✓ none
- Bar
- 1/2
- 1/4
- 1/8
- 1/8T
- 1/16
- 1/16T
- 1/32
- 1/32T
- 1/64

Quantize forces the sequence to start at a precise grid division of the Reason sequencer.

If Quantize is set to something other than "**none**", the sequence will not start as soon as you press a key, but it will wait until the next time division is reached. This works when the Reason sequencer is running. If the playhead is stopped, the sequence is not going to start until you press "Play".

If Quantize is set to "**none**", the sequence starts as soon as you press a key, regardless of whether the Reason sequencer is running or not.

Note Order ▶

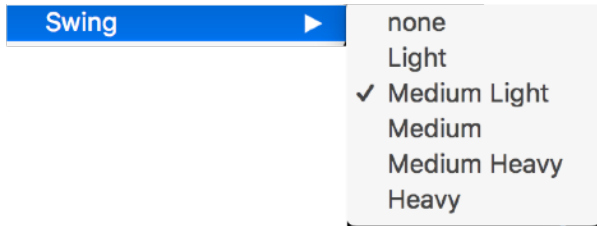
- ✓ As played
- Note number

if you have more than one key pressed at the same time, then Note Order determines how the notes are ordered internally.

"**As Played**" stores the notes in the order they were received

"**Note Number**" stores the notes from lowest to highest

This setting has a profound effect on the way the "Play Mode" parameter works. For more on that, read on.



from the **Swing** menu, you can choose one of the swing preset settings. If "none" is selected, no swing is applied to the sequence. All other values will apply a varying amount of swing, from very "Light" swing to "Heavy" swing. Set to taste.

Cycle Prev & Next play modes

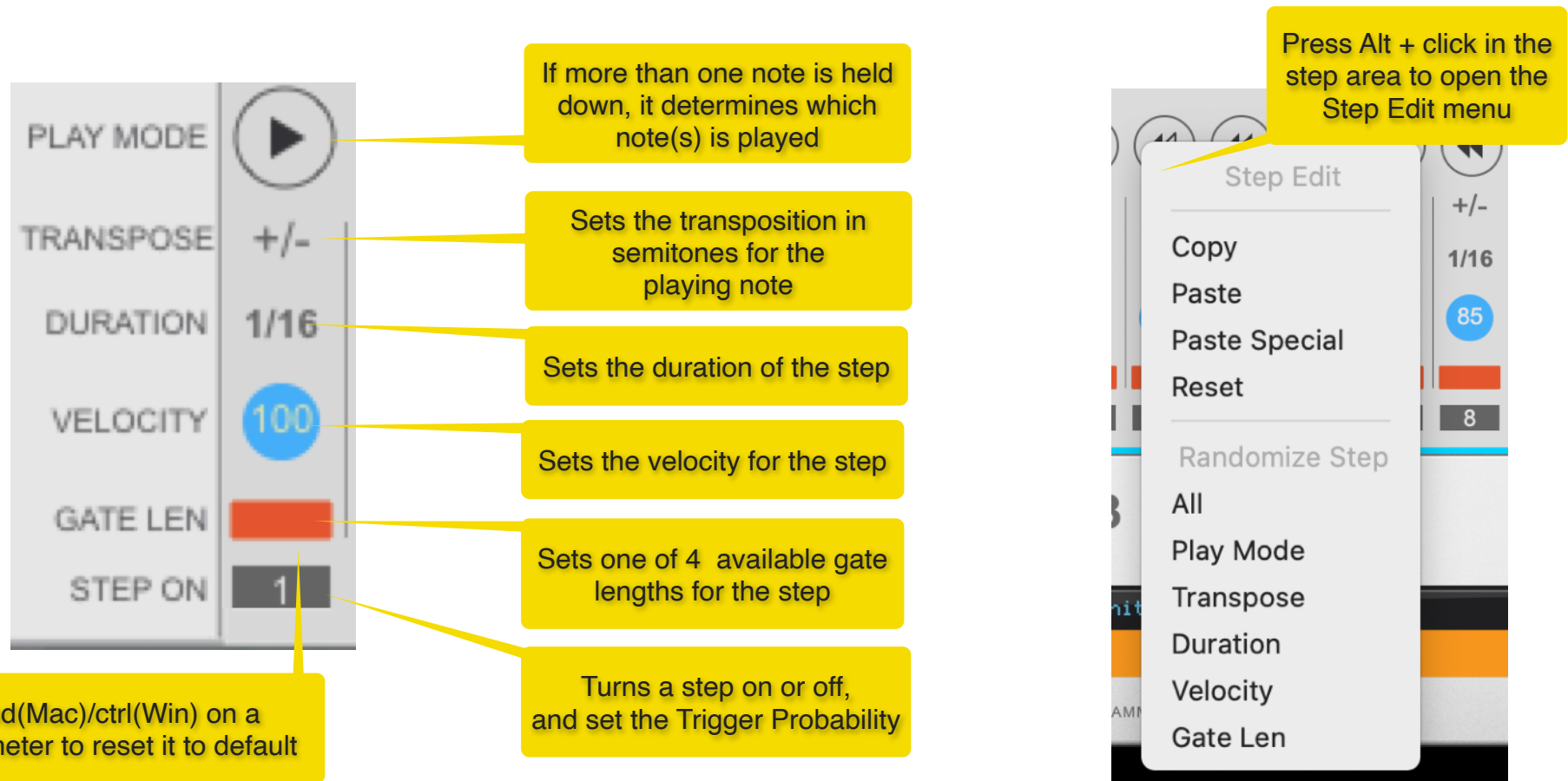
if **enabled (default)**, when steps with the "Prev" or "Skip Prev" play mode reach the bottom of the array of notes in memory, they'll continue to play from the top of the array, continuously cycling through the notes. Similarly, when steps with the "Next" or "Skip Next" play mode reach the top of the array, they'll continue to play from the bottom of the array.

if **disabled**, when steps with the "Prev" or "Skip Prev" play mode reach the bottom of the array of notes in memory, they'll continue to play the bottom note. Similarly, when steps with the "Next" or "Skip Next" play mode reach the top of the array, they'll continue to play the top note.

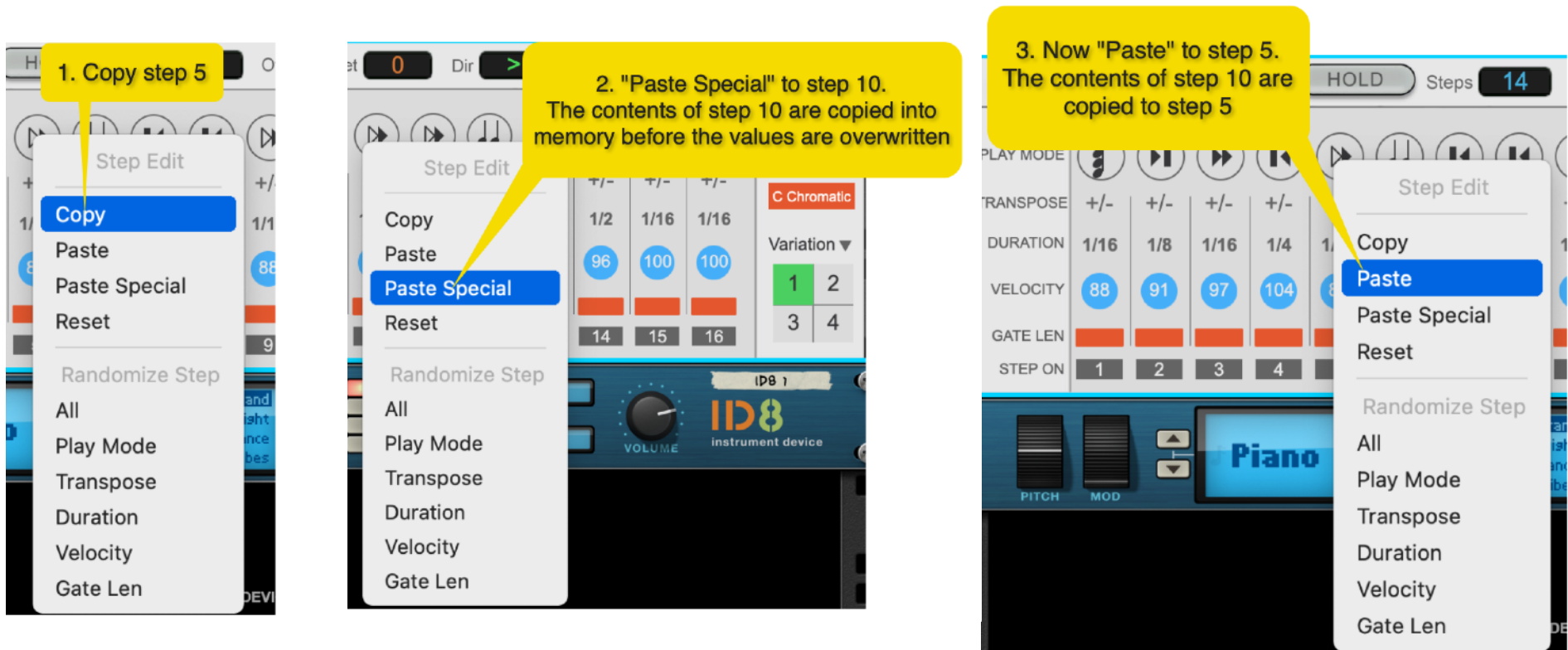
3.2 Programming Steps

3.2.1 Anatomy of a Step

Each step has a set of identical parameters which can be set independently of each other. You create sequences by adjusting these parameters. To make editing faster, each parameter has its own editing menu which makes it possible to edit multiple steps at once. If you press Alt and then click on in the step area, a "Step Edit" menu opens with various options for editing.



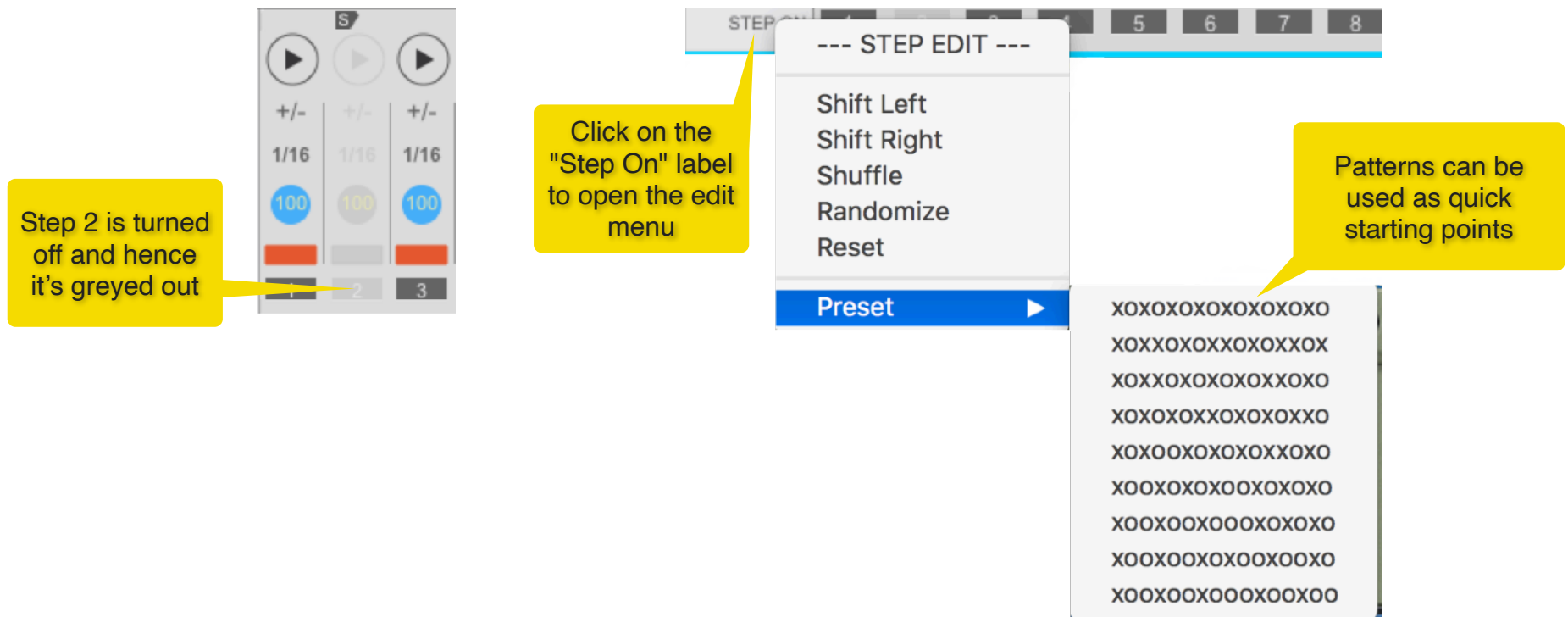
A word about the "Paste Special" option in the Step Edit menu. The difference from the regular "Paste" command is that when you use "Paste Special", the contents of the step which is being overwritten are copied into memory so they can be pasted somewhere else. This makes it easier to "swap" steps for example, as shown in the example below where step 5 and step 10 are swapped.



3.2.2 Step On

Here you turn steps on and off. When a step is turned off, it is greyed out. Please keep in mind that even if a step is turned off, it still remains part of the sequence and it is played through (i.e. it is not skipped), but the note is NOT played.

You can quickly modify the "Step On" parameter of multiple steps by accessing the Step Edit menu, as shown below. You can shift, shuffle and randomize the steps. There are also presets with some interesting patterns which can be used as great starting points. Please note that editing actions are restricted to the steps between the start and end point locators (see **section 4.1** for more info).



3.2.2.1 Step Trigger probability

It is possible to set trigger probabilities for each step in the sequence. Press "Shift", then click and drag in the "Step On/Off" area to set a probability for the selected step.

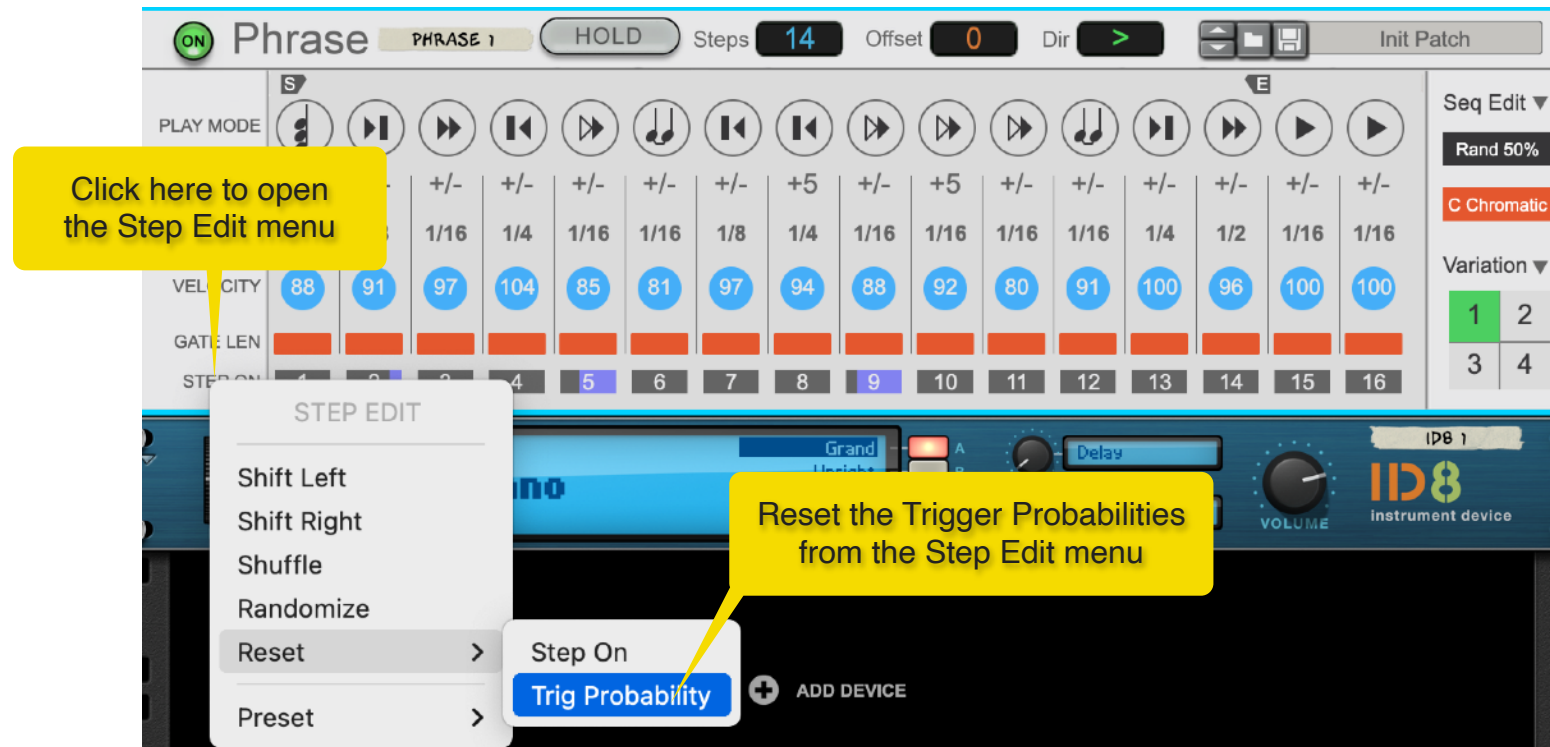
The screenshot shows the Phrase sequencer interface with 14 steps. The 'STEP ON' row displays trigger probabilities for each step. A yellow callout box points to the 2nd step, indicating that the probability can be changed by holding 'Shift' and clicking/dragging. A green double-headed arrow highlights the 'STEP ON' row.

Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14
STEP ON	100%	77%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

The screenshot shows the Phrase sequencer interface with 16 steps. The 'STEP ON' row displays step numbers 1 through 16. A yellow callout box points to steps 2, 5, and 9, indicating that these steps have various trigger probabilities.

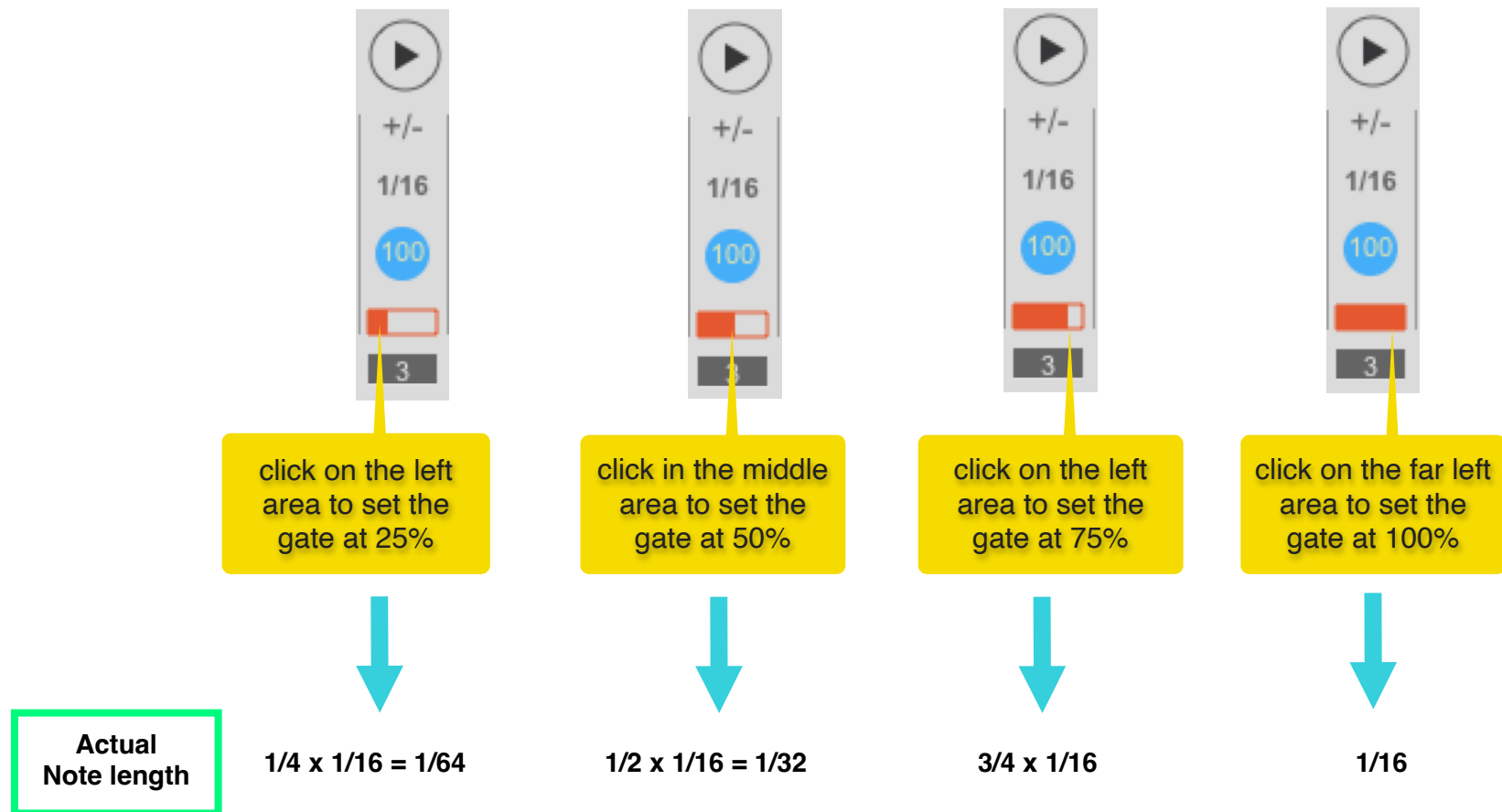
Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
STEP ON	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

You can reset the trigger probability for all steps at once by going to the Step Edit Menu, as shown below.



3.2.3 Gate Length

The gate length determines for how long the note(s) is played during the duration of the step. There are 4 possible settings and these correspond to 25%, 50%, 75%, and 100%. For example, if the step has a duration of 1/16 and the gate length is set to 50%, then the note will only play for half of 1/16, which is 1/32. Gate length is a great parameter to experiment with for creating interesting grooves out of repetitive sequences.



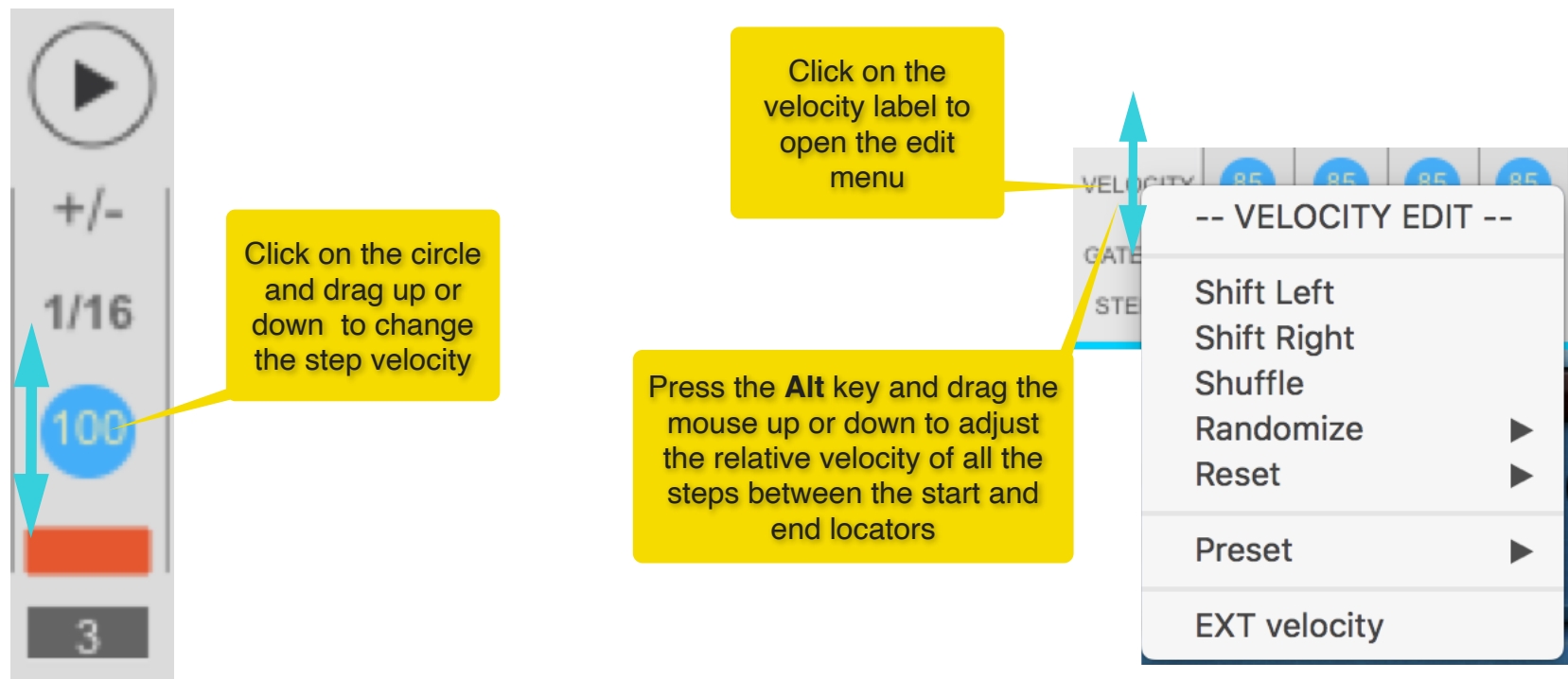
Clicking on the "Gate Len" label opens the Gate Length edit menu which allows quick editing actions for all the steps between the start and end locators. There are options for shifting, shuffling, randomizing and resetting the gates. With the Randomize [min, max] option you can choose the min and max values to be used in the randomization process. This is done by looking at the values of the start and end step which will be used respectively as the min and max values.

The diagram illustrates the process of randomizing gate lengths in a software interface. It consists of several screenshots and explanatory text boxes:

- Top Left:** A screenshot of the 'GATE LEN EDIT' menu. A yellow callout box points to the 'GATE LEN' label, stating: "click on the 'Gate Len' label to open the edit menu". The menu options are: Shift Left, Shift Right, Shuffle, Randomize, and Reset.
- Top Right:** A screenshot of the 'Randomize' sub-menu. A yellow callout box points to the 'Reset' option, stating: "reset all selected steps to the chosen value". The sub-menu options are: 100%, 75%, 50%, and 25%.
- Bottom Left:** A screenshot of the 'GATE LEN EDIT' menu with 'Randomize' selected. A yellow callout box points to the 'Randomize' option, stating: "randomizes the selected steps using the start and end step values as min and max". The sub-menu shows '25% 100%' and '[min, max]'.
- Bottom Center:** A screenshot of the main interface showing a sequence of steps (2, 3, 4, 5, 6) with play buttons and a progress bar. A yellow callout box points to the first step (2), stating: "Start step is 50% and this is used as the min".
- Bottom Right:** A screenshot of the main interface showing a sequence of steps (2, 3, 4, 5, 6) with play buttons and a progress bar. A yellow callout box points to the last step (6), stating: "End step is 100% and this is used as the max".

3.2.4 Velocity

Each step has its own velocity setting. You can change it by simply clicking and dragging on the numbered circles. If you click on the "Velocity" label, the Velocity Edit menu opens with several options for affecting all the steps included between the start and end point locators. You can randomize the velocities, reset them, or use presets for crescendo and diminuendo. If you select "EXT velocity", the steps will use the velocity of the incoming MIDI notes instead.



-- VELOCITY EDIT --

Shift Left
Shift Right
Shuffle
Randomize ▶
Reset ▶
Preset ▶
EXT velocity

assign random values between 0 and 127

0-127
[min, max]

assign random values using the start and end step values as min and max

start step value is used as min

end step value is used as max

S E

+/-	+/-	+/-	+/-	+/-
1/16	1/16	1/16	1/16	1/16
20	85	85	85	120
1	2	3	4	5

-- VELOCITY EDIT --

Shift Left
Shift Right
Shuffle
Randomize ▶
Reset ▶
Preset ▶
EXT velocity

5 6 7 8 9

Crescendo (fixed)
Crescendo (variable)
Diminuendo (fixed)
Diminuendo (variable)

creates a velocity crescendo for the steps between the start and end locators using 9 as the min and 127 as the max

creates a velocity crescendo for the steps between the start and end locators using the start step value as the min and the end step value as the max

creates a velocity decrescendo for the steps between the start and end locators using 10 as the min and 127 as the max

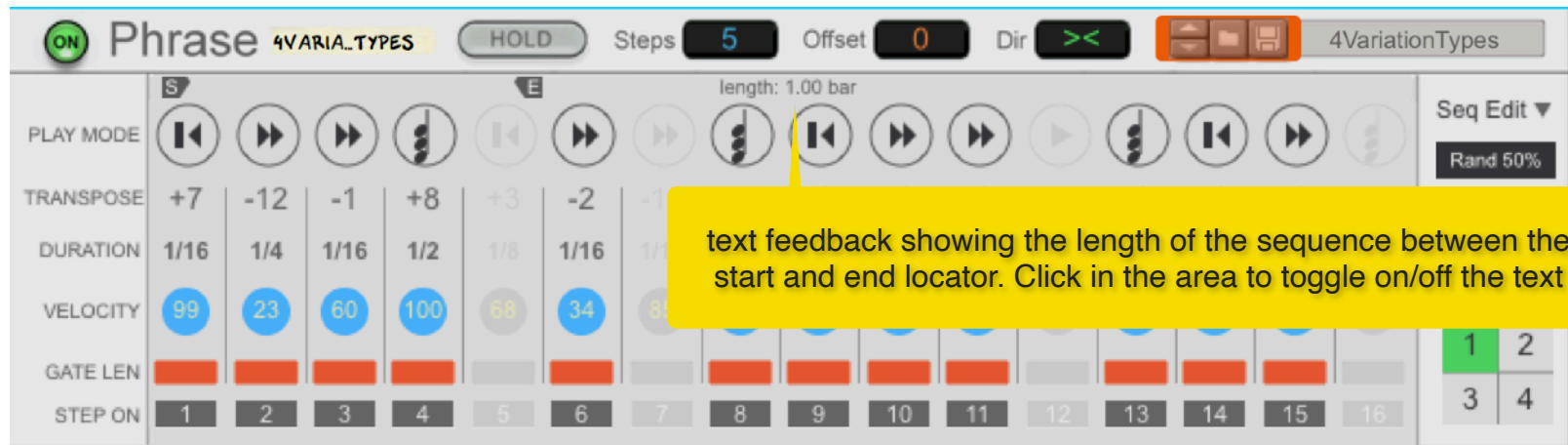
creates a velocity decrescendo for the steps between the start and end locators using the start step value as the max and the end step value as the min

3.2.5 Duration

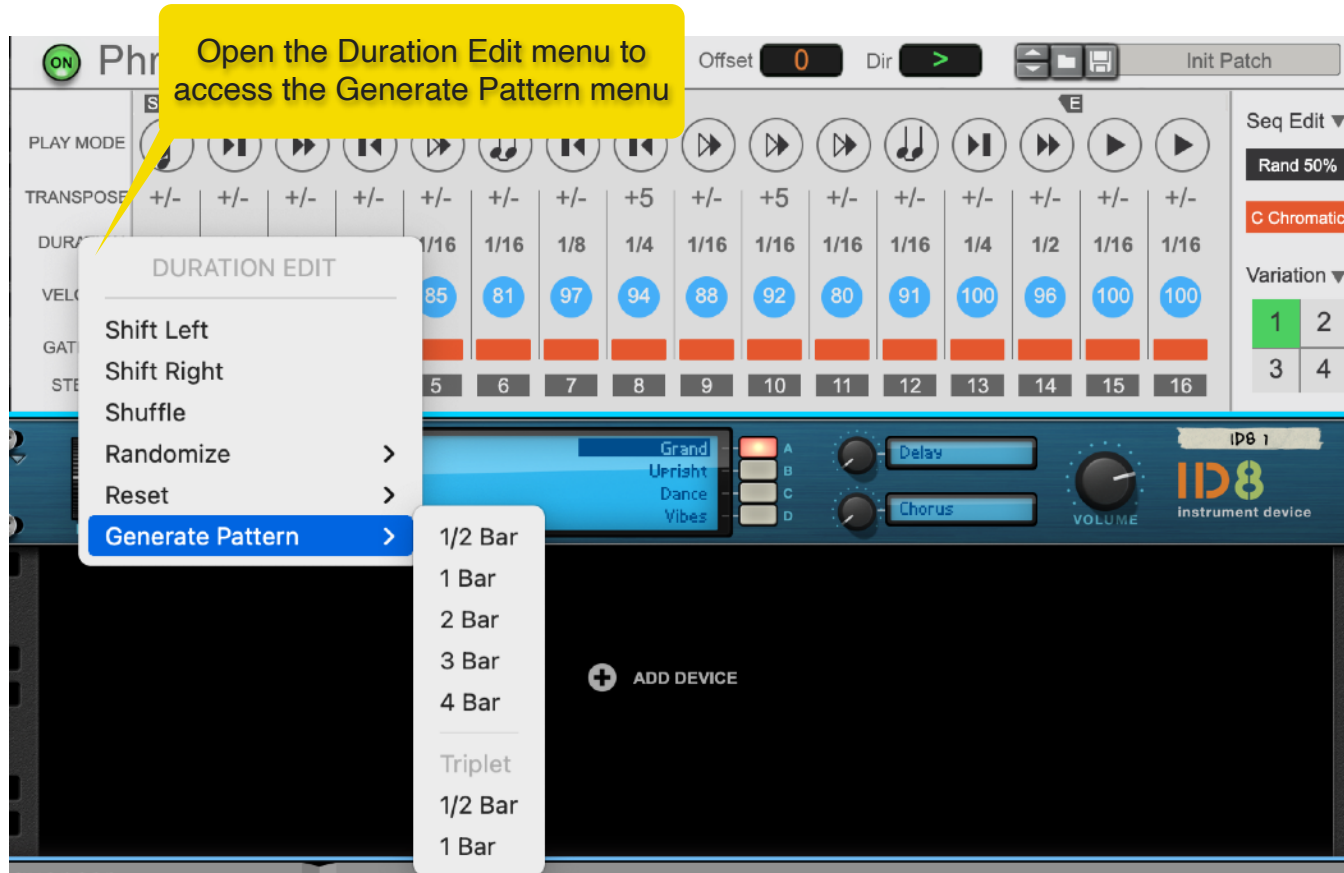
Unlike typical step sequencer and arpeggiators, Phrase lets you select a duration for each step which can be as short as 1/64 or as long as 1 full bar. For a given step, clicking on the duration value opens up a menu with the various length options. Also, clicking on the "Duration" label opens the "Duration Edit" menu with options for affecting the duration for all the steps between the start and end locators.

The image shows a screenshot of the Phrase software interface. A yellow callout box points to the 'DURATION' label, stating: 'Click on the Duration label to open the menu'. The 'DURATION EDIT' menu is open, showing options: 'Shift Left', 'Shift Right', 'Shuffle', 'Randomize' (highlighted with a blue bar and a right arrow), 'Reset' (with a right arrow), and 'Generate Pattern' (with a right arrow). Below this menu, a sub-menu is visible with the following options: '< 1/8', '< 1/4', '< 1/2', '< 1 bar', 'All', and '[min, max]'. Six yellow callout boxes provide explanations for these options: '< 1/8' is 'assigns randomly duration values smaller than 1/8'; '< 1/4' is 'assigns randomly duration values smaller than 1/4'; '< 1/2' is 'assigns randomly duration values smaller than 1/2 bar'; '< 1 bar' is 'assigns randomly duration values smaller than 1 bar'; 'All' is 'assigns randomly duration values from 1/64 to 1 bar'; and '[min, max]' is 'uses the start step duration value as the min and the end step duration value as the max for the randomization'. The background interface shows a step sequencer with columns for 'DURATION', 'VELOCITY', 'GATE', and 'STEP'. The 'DURATION' column has values '1/16', '1/16', '1/16'. The 'VELOCITY' column has values '9', '85', '85'. The 'GATE' column has red bars. The 'STEP' column has values '5', '6', '7'.

Whenever you change any of the duration parameters or you change the number of steps and offset, a temporary text feedback appears in the center of the running light strip to indicate the current length of the sequence included between the start and end point locators. This feedback can be toggled on and off by clicking directly in the area as shown below.

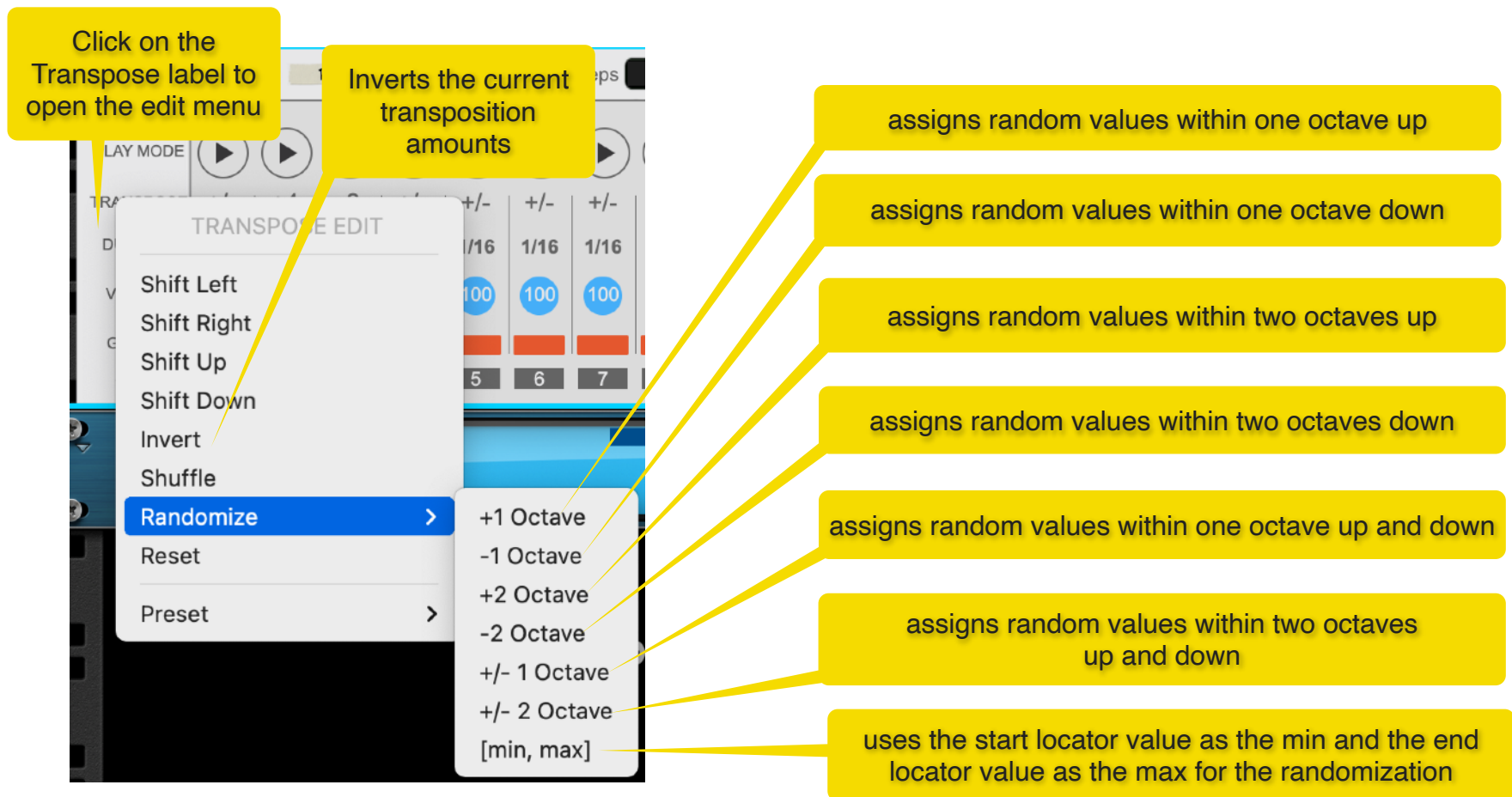


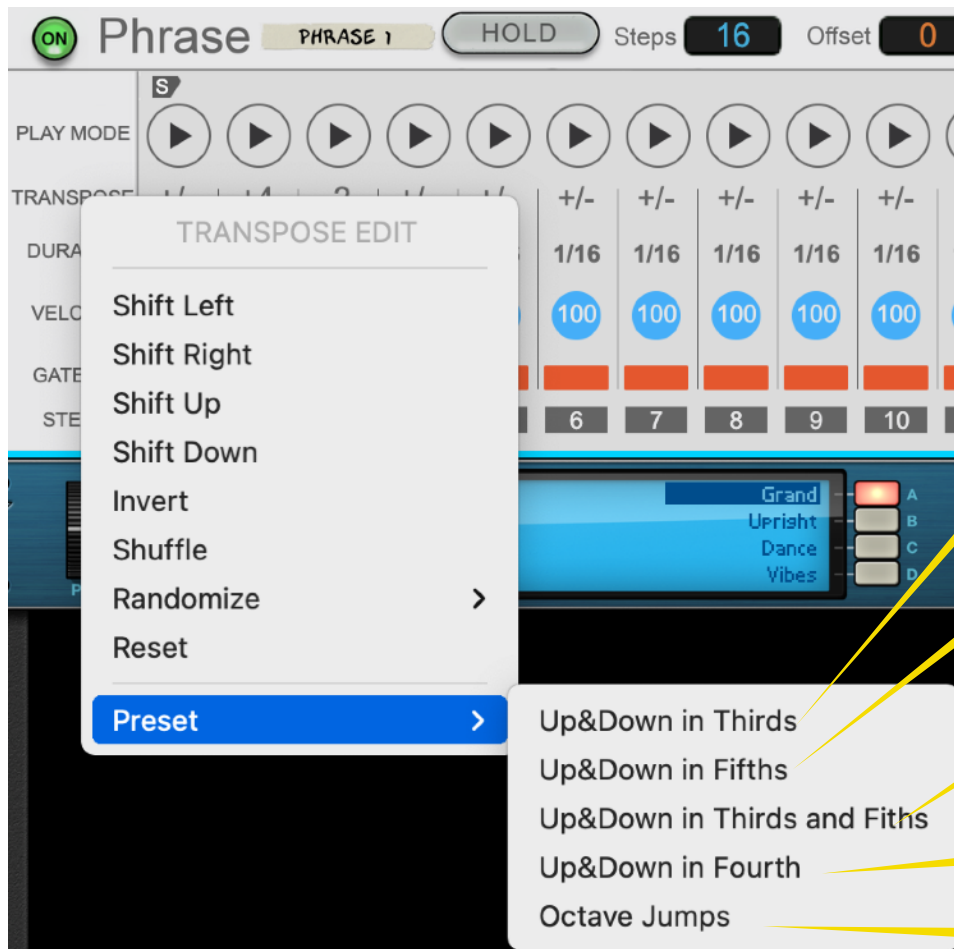
You can automatically generate duration patterns of different lengths from the Duration Edit menu. There are options for normal and triplet step times. Please be aware that the generate algorithm keeps into account the type of "Direction" selected. So for example if you have the "Pendulum" direction and you select to generate a 2 bar pattern, the algorithm will actually generate a 1 bar pattern which is traversed twice due to the change in direction of the pendular motion.



3.2.6 Transpose

For each step, you can set a transposition of the incoming note. You can add or subtract 24 semitones to the incoming note, which translates to a max transposition of 2 octaves up or down. Using the transpose parameter can create really interesting melodic results, but don't be afraid to experiment with other material, like drum or percussive samples. Clicking on the "Transpose" label opens the "Transpose Edit" menu with various options to affect the steps between the start and end locators.





every other step is either raised or lowered by 4 semitones

every other step is either raised or lowered by 7 semitones

every other step is either raised or lowered by 4 or 7 semitones alternating

every other step is either raised or lowered by 5 semitones

every other step is either raised or lowered by 12 semitones

There are two handy shortcuts when adjusting the transposition of all the steps between the Start and End locators. Instead of using the menu options "Shift Up" and "Shift Down" in the Transpose Edit Menu to adjust the transpositions, you can simply hold down the "Alt" key and then click + drag the mouse up or down on the Transpose label.

Shortcut: Hold down "Alt" then click and drag to change the transpositions for all the steps

PLAY MODE	TRANSPOSE	DURATION	VELOCITY	GATE LEN	STEP ON
▶▶	+4	1/16	77	■	1
▶▶	+6	1/16	65	■	2
▶▶	+/-	1/16	92	■	3
▶▶	+2	1/16	72	■	4
▶▶	-3	1/16	82	■	5
◀◀	-7	1/16	64	■	6
◀◀	-3	1/16	72	■	7
◀◀	+1	1/16	75	■	8
◀◀	+11	1/16	72	■	9
◀◀	+1	1/16	91	■	10
◀◀	+6	1/16	70	■	11
◀◀	+13	1/16	82	■	12
◀◀	-1	1/16	71	■	13
◀◀	+8	1/16	73	■	14
◀◀	+1	1/16	87	■	15
▶▶	+1	1/16	75	■	16

Offset: 0 Dir: > AnaSeq14

Seq Edit ▼

Rand 50%

C Chromatic

Variation ▼

1	2
3	4

Additionally, if you hold the "Alt" + "Ctrl/Cmd" keys and then click + drag the mouse up or down, the transpositions are adjusted only for the steps which have values other than zero transposition (" +/-").

Shortcut: Hold down "Alt" + "Ctrl/Cmd" then click and drag to change the transpositions for all the steps with non-zero transposition

PLAY MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TRANPOSE	+4	+6	+/-	+2	-3	-7	-3	+1	+11	+1	+6	+13	-1	+8	+1	+1
DURATION	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16
VELOCITY	77	65	92	72	82	64	72	75	72	91	70	82	71	73	87	75
GATE LEN																
STEP ON	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

This step is not affected since it has zero transposition

Seq Edit ▾
Rand 50%
C Chromatic
Variation ▾
1 2
3 4

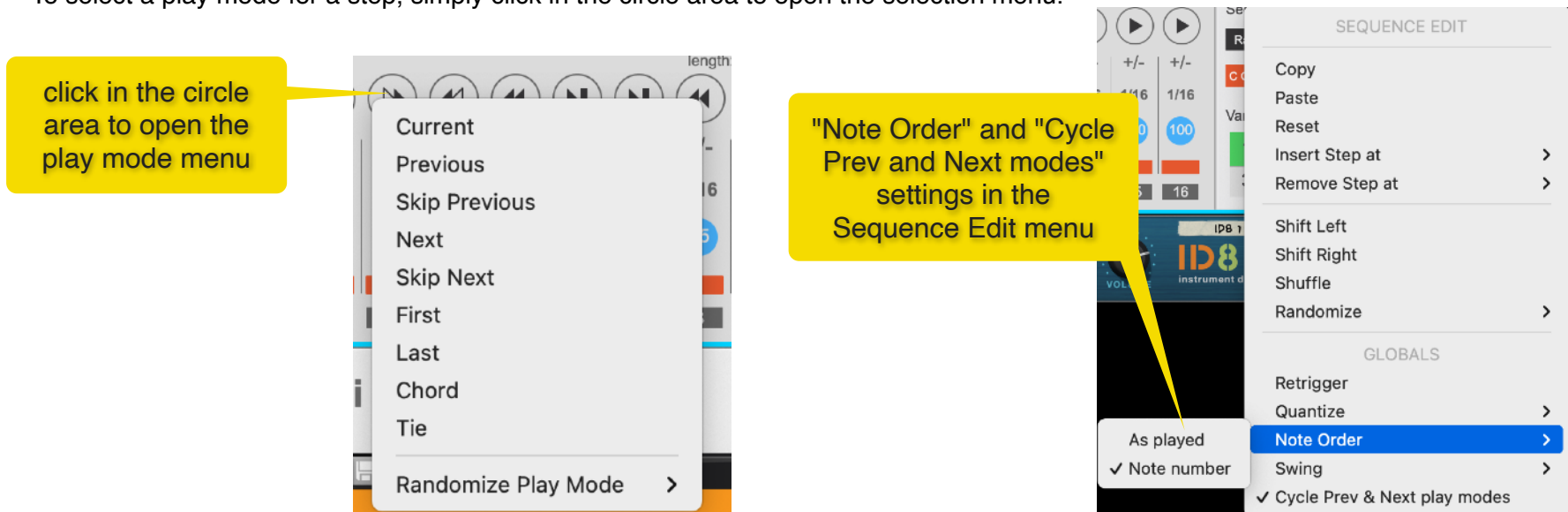
3.2.7 Play Modes










The Play Modes determine which note is played when you have more than one key pressed at the same time on your keyboard. By changing the play mode parameters you can go from classic arpeggios to more advanced sequences.

The important thing to understand about the Play Modes is that they are influenced by the setting for "Note Order", which is accessible from the "Seq Edit" menu. The Note Order determines how the notes pressed on your keyboard are stored internally by the device. If Note Order is set to "As Played", then the notes are stored in the order they were received. If Note Order is set to "Note Number", then the notes are stored from the lowest to the highest pitch, regardless of when they were received. This internal ordering of the notes is essential for contextualizing the function of play modes like "Current", "First", "Previous", "Next" and so on, since they depend partly on the way the notes are ordered in memory.

Another important parameter to understand is the "Cycle Prev and Next play modes", which is accessed from the "Seq Edit" menu. As of version 1.2.0, this is enabled by default and it allows the "Prev", "Next", "Skip Prev" and "Skip Next" modes to continuously cycle thru the array of held notes. For example, if the sequence has reached the last held note in the array and the "Next" play mode is applied, it will circle back to the beginning of the array and play the first note. On the other hand if this option is disabled, it will stop to the last note and continue to play that.

To select a play mode for a step, simply click in the circle area to open the selection menu.

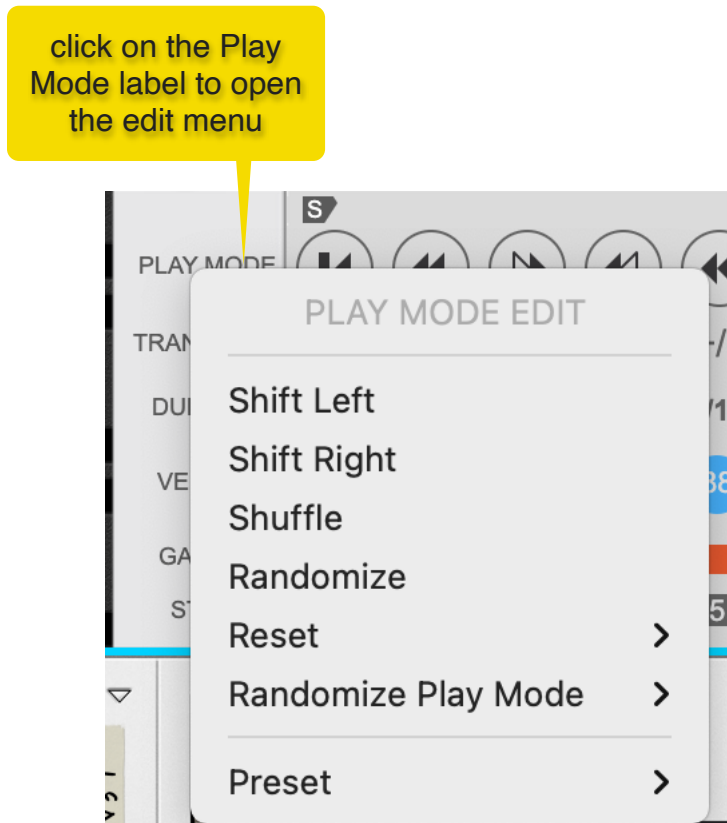


Note Order / PlayMode	As Played	Note Number
	of the notes currently held down, plays the note that was last pressed if no note was playing, otherwise it continues to play the note that was playing in the previous step	
	plays the first note in the temporal held notes array	plays the note with the lowest note number in the pitch held notes array
	plays the last note in the temporal held notes array	plays the note with the highest note number in the pitch held notes array
	in the temporal held notes array plays the note one position down from the note that played in the previous step. If this note does not exist, it continues to play the previous note*	in the pitch held notes array plays the note one position down from the note that played in the previous step. If this note does not exist, it continues to play the previous note*
	in the temporal held notes array plays the note one position up from the note that played in the previous step. If this note does not exist, it continues to play the previous note*	in the pitch held notes array plays the note one position up from the note that played in the previous step. If this note does not exist, it continues to play the previous note*
	in the temporal held notes array plays the note two positions down from the note that played in the previous step. If this note does not exist, it continues to play the previous note*	in the pitch held notes array plays the note two positions down from the note that played in the previous step. If this note does not exist, it continues to play the previous note*
	in the temporal held notes array plays the note two position up from the note that played in the previous step. If this note does not exist, it continues to play the previous note*	in the pitch held notes array plays the note two positions up from the note that played in the previous step. If this note does not exist, it continues to play the previous note*
	plays all the notes currently held down as a chord	
	ties the current step to the previous step and extends the previous step by the current step's duration. All other parameters are the same as those of the previous step	

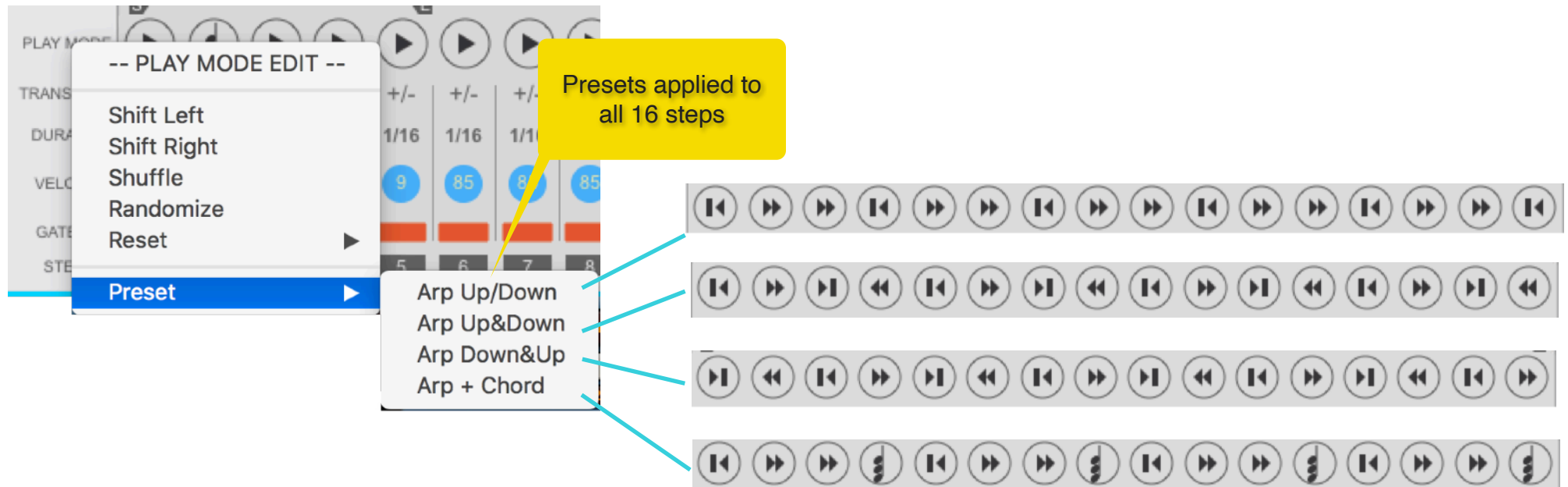
* if the "Cycle Prev and Next play modes" setting is enabled, then once the end of the held notes array is reached, it circles back in either directions to find notes to play. For example, if the sequence has reached the last held note in the array and the "Next" play mode is applied, it will circle back to the beginning of the array and play the first note.

Of course if you have only one note pressed on the keyboard, all play modes parameter just play that note, so you don't need to worry about making adjustments even for sequences that were programmed for multiple key presses at the same time.

If you click on the Play Mode label, then you get access to the Play Mode edit menus which offers various options for altering all the steps between the start and end locators. These include Shift, Shuffle, Randomize and Reset.

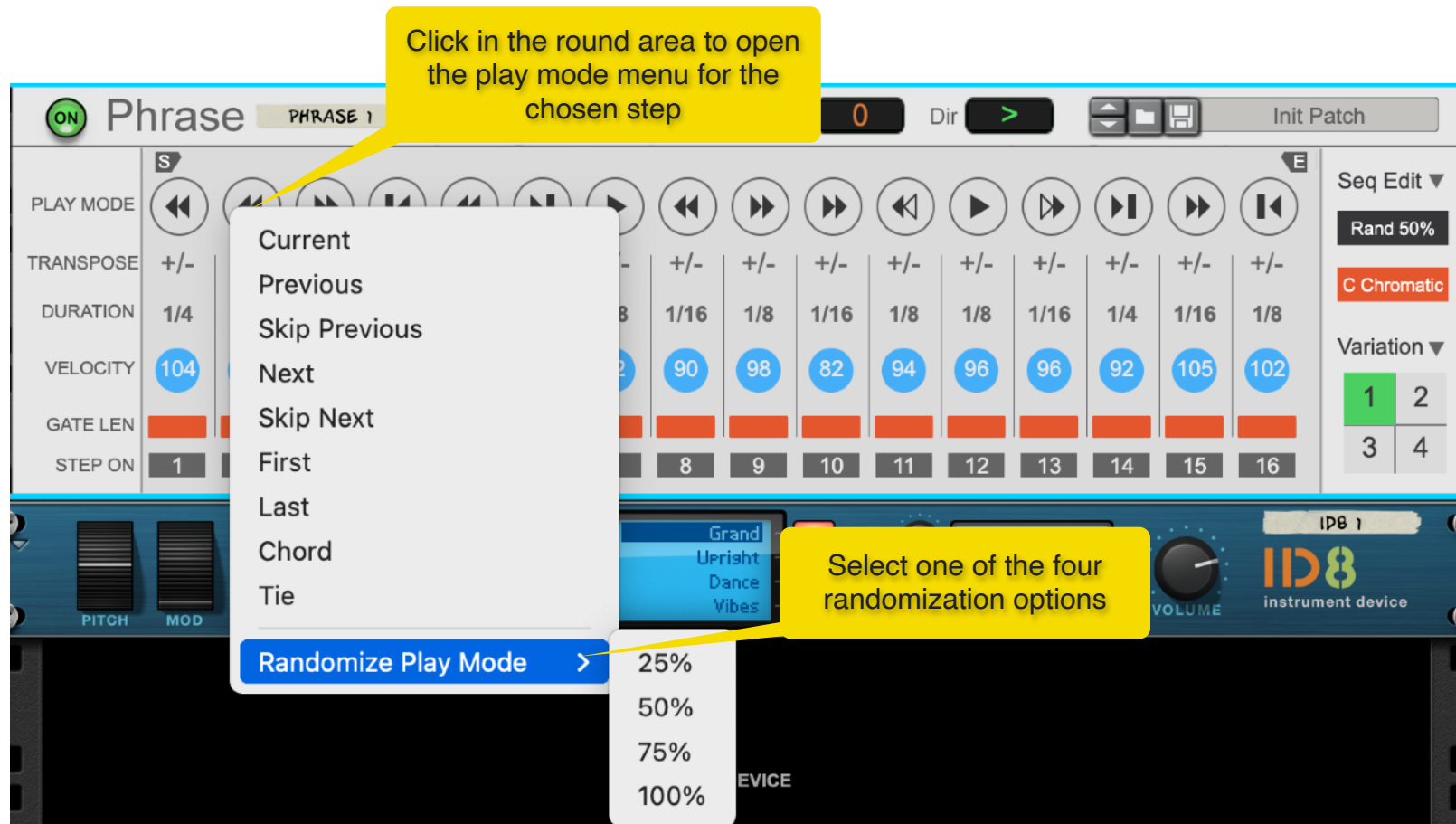


The Play Mode presets offer a quick way of creating classic arpeggio patterns, like Up or Down, Up and Down, and so on. The preset will be applied for the steps between the start and end loop locators, so if you change these locators for editing purpose, you can mix and match different patterns to create more complex ones.



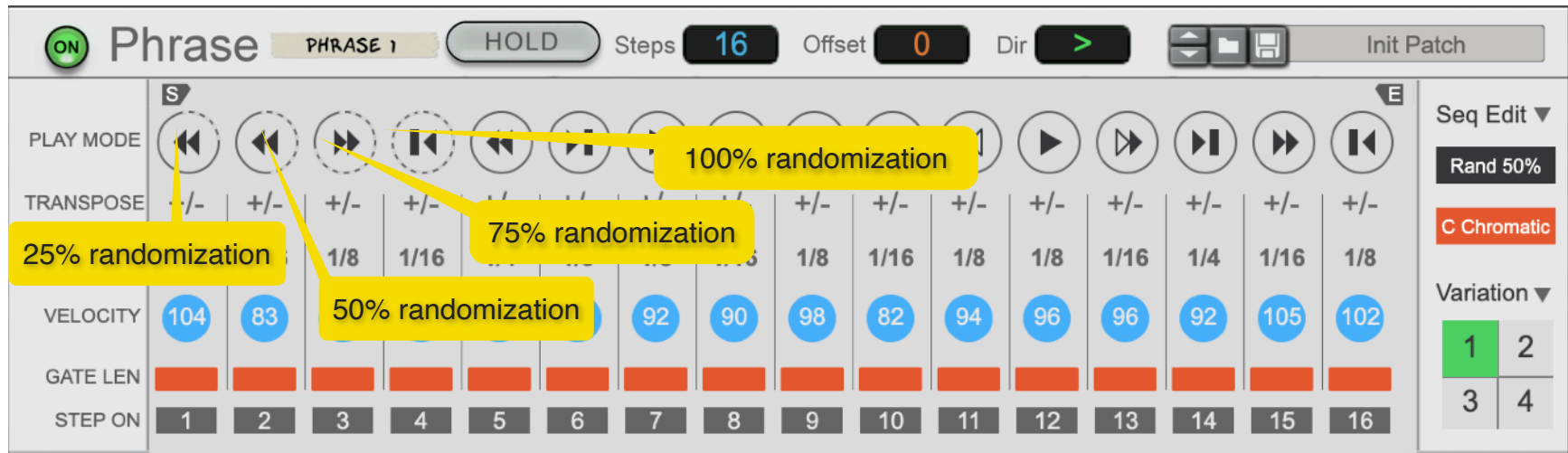
3.2.7.1 Play Mode Randomization

It is possible to randomize the play mode type for the chosen step in the sequence. The randomizations are 25%, 50%, 75% and 100%. Select an option to activate it. Once activated, select that option again to deactivate it.



With the first option selected, there is a 25% chance that when the step is triggered, the play type is selected randomly from all the available modes, otherwise the original play mode is used. With 100% selected, the play mode is always chosen randomly every time the step is triggered.

If the randomization is active, the graphic circle around the play mode goes from solid to partially or fully dashed as shown below.



3.3 Sequence Edit

So far we have discussed the editing of a single step, or of rows for successive steps for a specific parameter only. With the Sequence Edit menu it is possible to alter all of the parameters at once for the steps contained between the start and end locators.

The screenshot shows the Phrase software interface. At the top, there's a control bar with 'ON', 'Phrase', 'DEFAULT', 'HOLD', 'Steps: 4', 'Offset: +8', 'Dir: >', and 'Default'. Below this is a grid of 16 steps. Each step has a 'PLAY MODE' icon, a 'TRANPOSE' value, a 'DURATION' value, a 'VELOCITY' value, a 'GATE LEN' bar, and a 'STEP ON' number. A yellow callout box points to the 'Seq Edit' label in the top right corner of the interface. A context menu is open, showing the following options:

- SEQUENCE EDIT --
- Copy
- Paste
- Reset
- Insert Step at
- Remove Step at
- Shift Left
- Shift Right
- Shuffle
- Randomize
- GLOBALS ---
- Retrigger
- Quantize
- Note Order
- Swing
- Cycle Prev & Next play modes

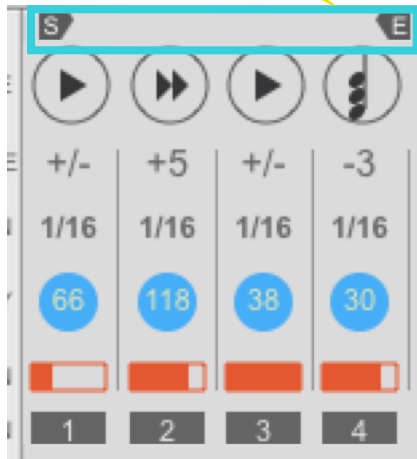
3.3.1 Copy and Paste

Let's say you are programming a sequence and you stumble on a combination of steps which sound quite good and you would like to repeat those same steps somewhere later in the sequence. One obvious options if to copy and paste each step one by one. But there is a faster way and it involves using the Start and End locators as selection tools. This technique is discussed in more details in **section 4.1** and it can be used for most other editing functions as well.

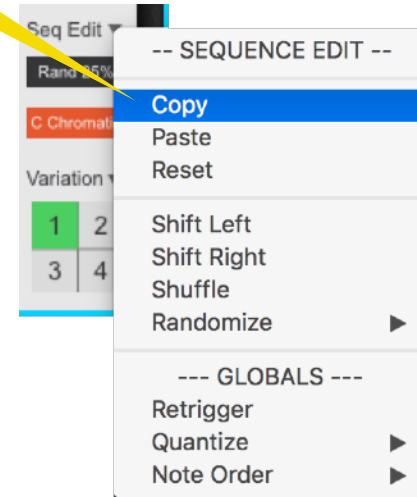
The screenshot shows a sequence programming interface with 16 steps. Each step has a row of controls: a play/pause icon, a value (e.g., +/-, +5, +/-, -3), a resolution (1/16), a blue circle with a number (e.g., 66, 118, 38, 30), a red progress bar, and a step number (1-16). Steps 1-4 are highlighted with a green bracket. A yellow callout box with the text 'Goal is to copy these 4 steps to another part of the seq' has a grey arrow pointing to steps 9-12, which are also highlighted with a green bracket.

Step	Icon	Value	Resolution	Circle Number	Progress Bar	Step Number
1	Play	+/-	1/16	66	Full	1
2	Play	+5	1/16	118	Full	2
3	Play	+/-	1/16	38	Full	3
4	Play	-3	1/16	30	Full	4
5	Play	+/-	1/16	9	Full	5
6	Play	+/-	1/16	78	Full	6
7	Play	+/-	1/16	85	Full	7
8	Play	-18	1/16	85	Empty	8
9	Play	+9	1/16	24	Full	9
10	Play	+/-	1/16	4	Empty	10
11	Play	+/-	1/16	89	Full	11
12	Play	+/-	1/16	85	Empty	12
13	Play	+15	1/16	85	Full	13
14	Play	+/-	1/16	127	Full	14
15	Play	+/-	1/16	85	Full	15
16	Play	-7	1/16	85	Full	16

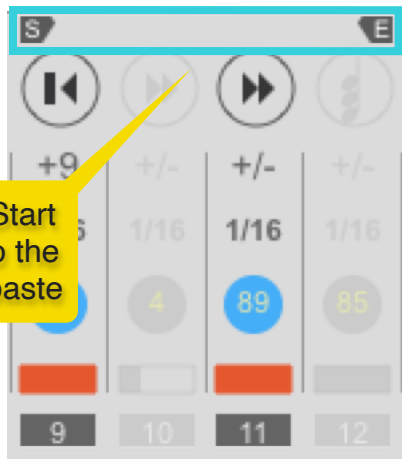
Step1: move the Start and End locators to the steps you want to copy



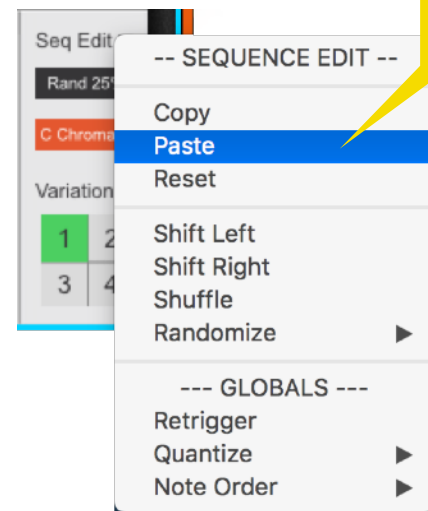
Step 2: click on Copy from the Seq Edit Menu



Step 3: move the Start and End locators to the steps you want to paste

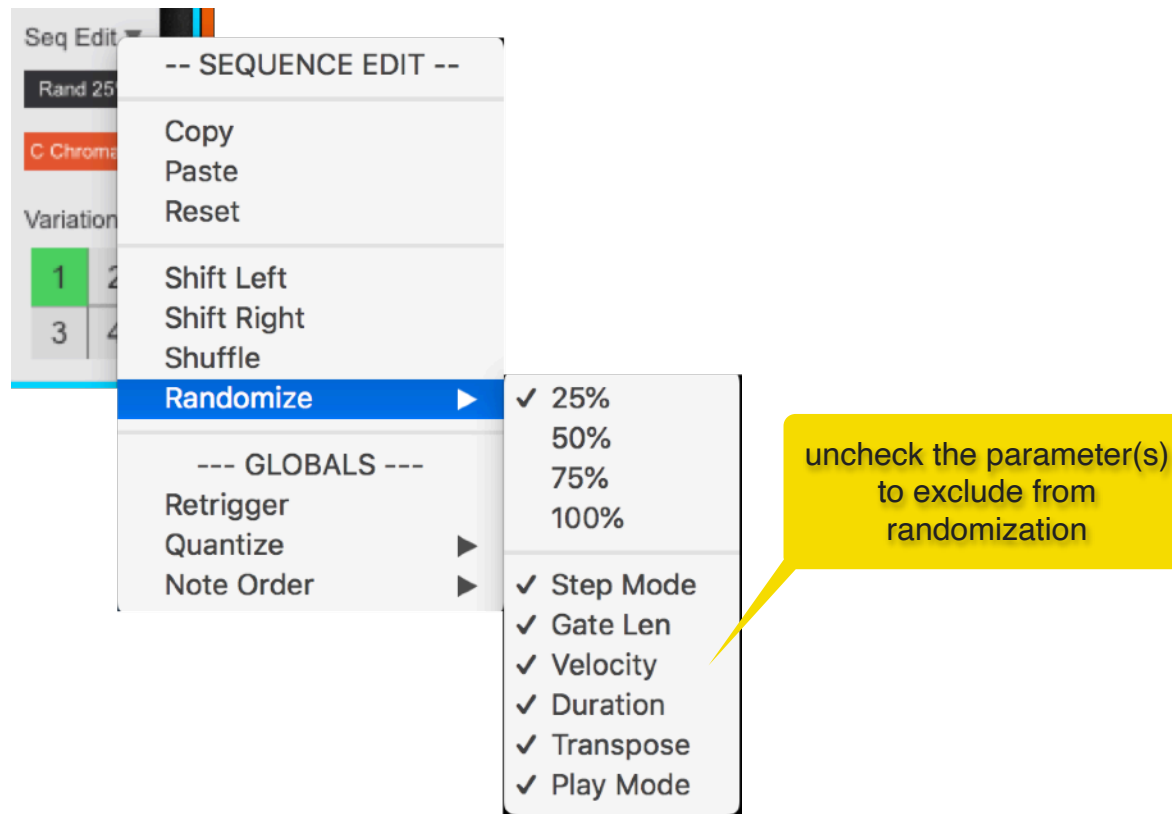


Step 4: paste the steps to the new location!



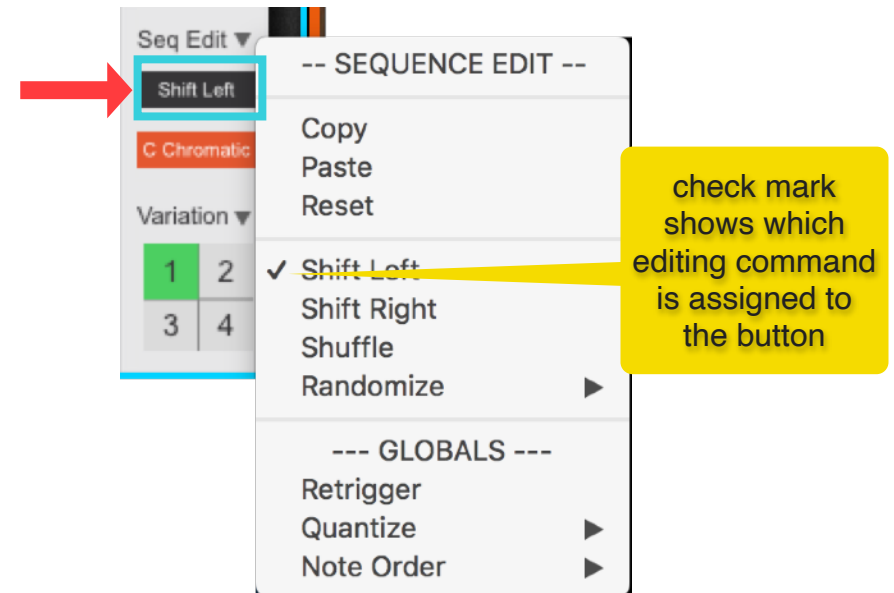
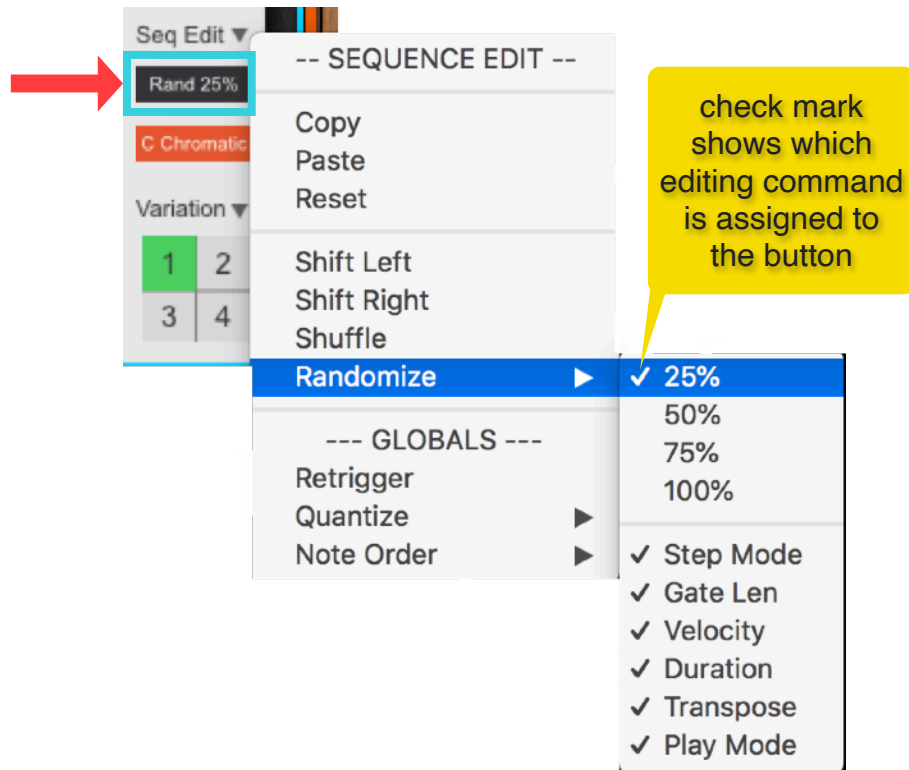
3.3.2 Randomization

Randomization can be a great way to come up with interesting sequences with little effort. You have the option to control the "strength" of the randomization by choosing how many parameters you want to alter. There are 4 options, 25%, 50%, 75% and 100%. At 25% only few parameters will be altered, at 100% most parameters will be altered. If you want to exclude certain parameters from randomization, you can do that by unchecking them in the list.



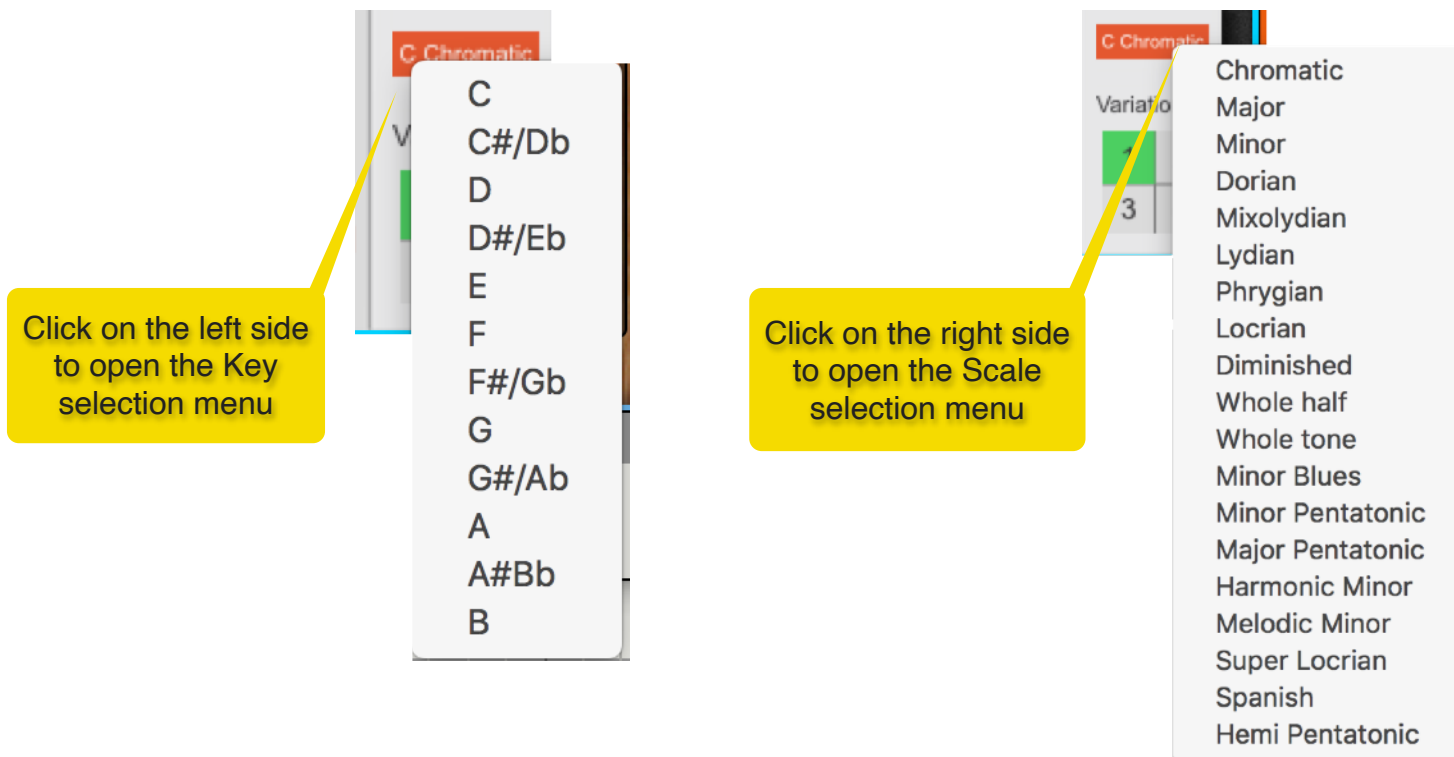
3.3.3 Fast Edit Button

When you are executing editing functions like "Shift Left", "Shift Right", "Shuffle" and "Randomize", instead of using the edit menu multiple times to repeat the same action, you can use the "Fast Edit" button. Located just below the "Seq Edit" label, it remembers the last operation you performed from the edit menu and will repeat that operation again when you press it.



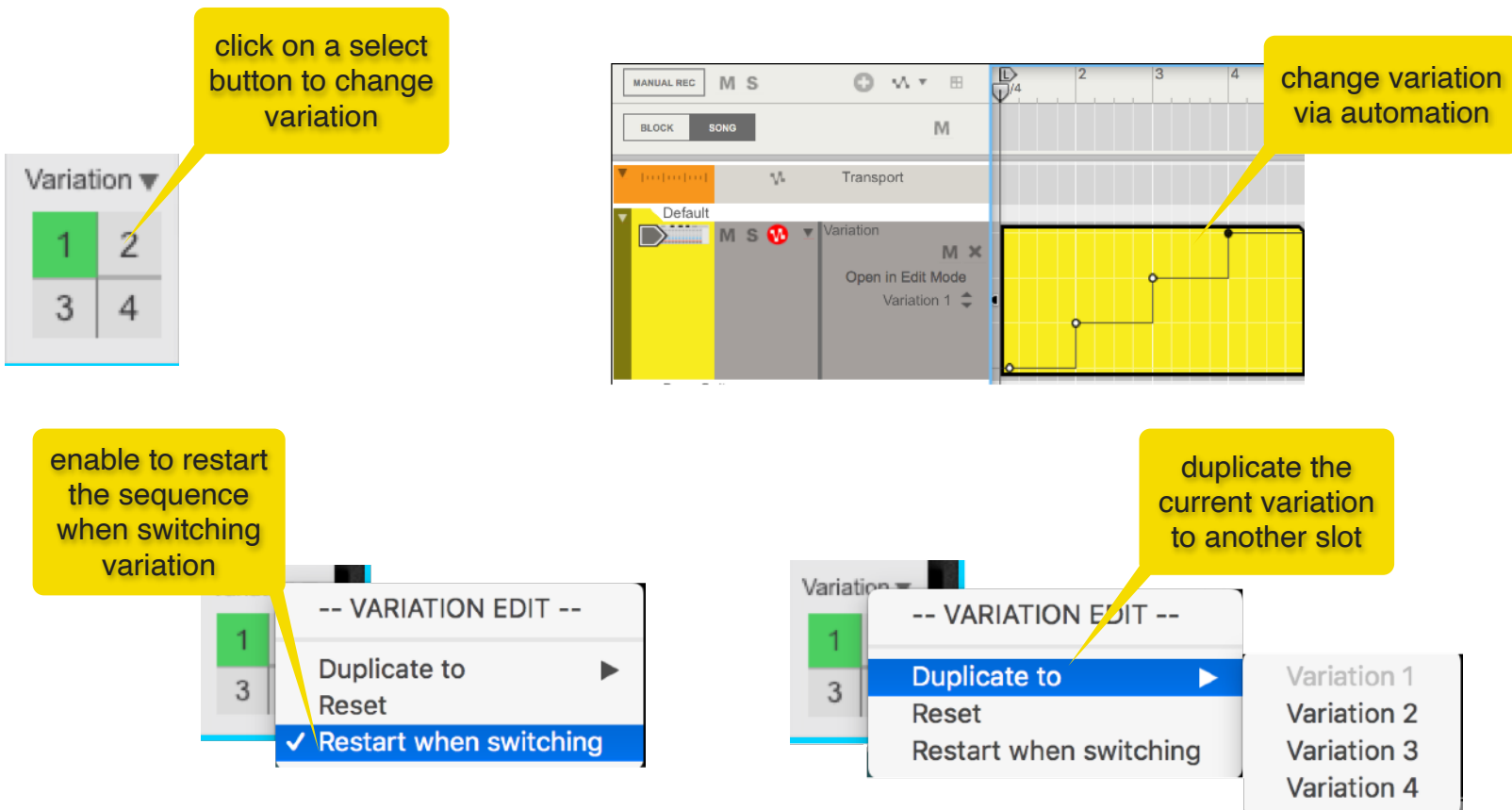
3.3.4 Scale and Key Correction

You can force the outgoing notes to a certain scale and key. The correction happens as the very last step, that is note transpositions as well as chords will be corrected. Very convenient to have enabled when you want to "tame" the results of randomizations!



3.4 Variations

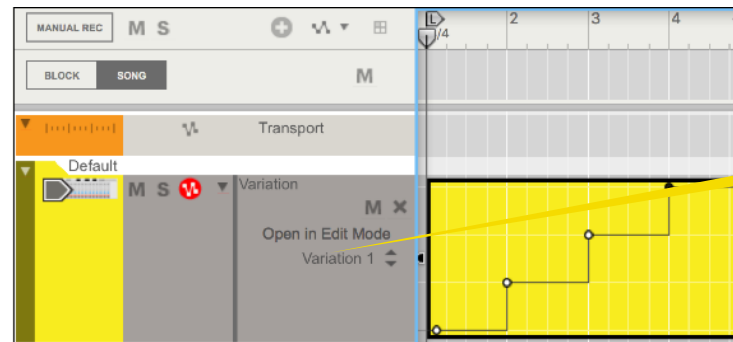
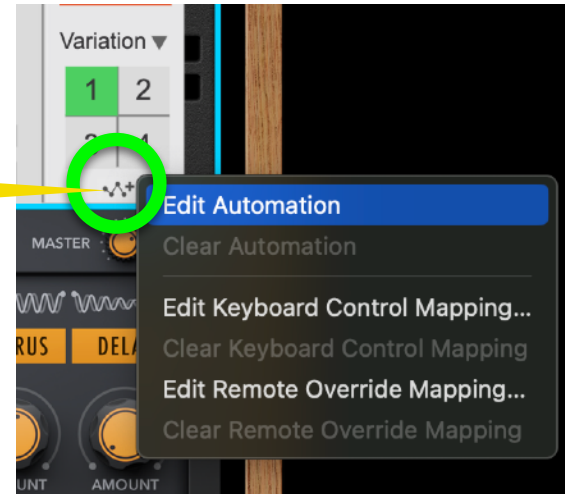
Phrase can have 4 different sequence variations per patch. You can change variation live during play, either by clicking on the 4 variation select buttons or by automating the variation parameter in the sequencer. Clicking on the "Variation" label opens the edit menu with various options like duplicating the current sequence to another slot or resetting the entire sequence. An important parameter is the "Restart when switching" option. By default, when you change variations, the sequence will continue to play from the current step in to the next variation. This is called "Legato". If you want the sequence to restart from the start step when you switch variations, then enable "Restart when switching". When enabled, you will see a check mark next to it.



3.4.1 Variation Automation Button

Variation changing can be automated in the Reason sequencer, but first you need to create a track and automation lane. The easiest way to do this is to right click or pressing Alt + clicking on the “Automation” button.

Right click on the Automation button to create an automation lane for the Variation

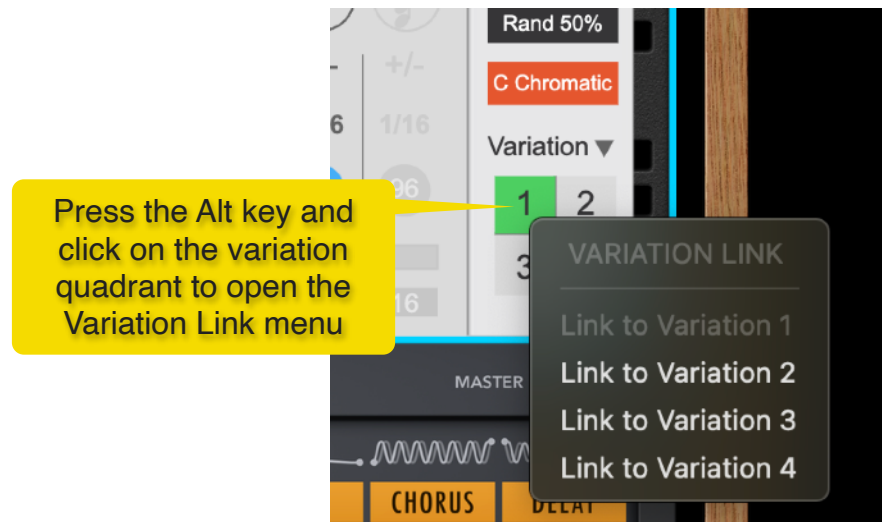


A track and automation lane are created for the Variation

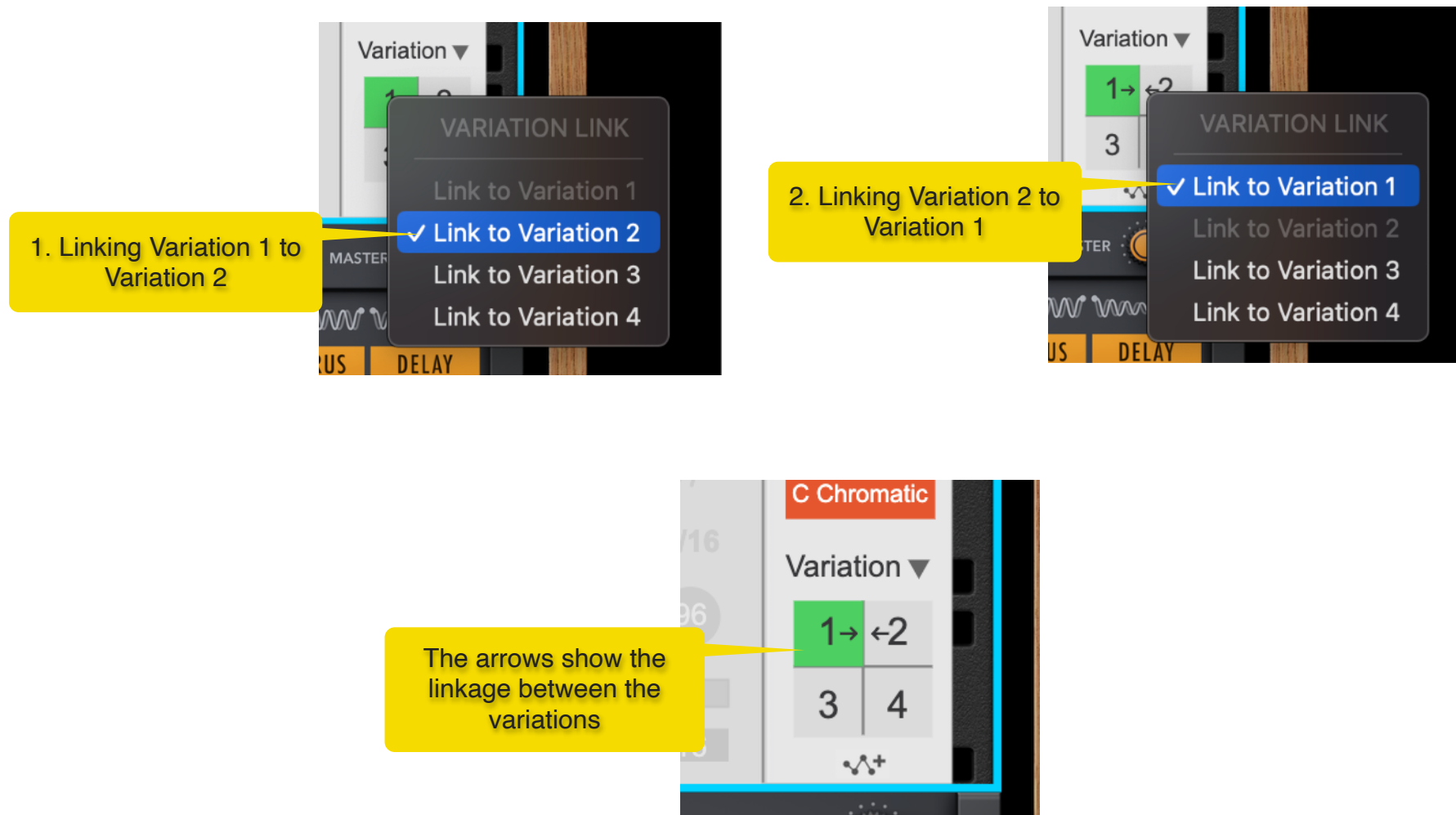
3.4.2 Variation Linking

Variation Linking allows you to string together two or more variations without the need to switch the variations manually or create an automation lane in the sequencer. Effectively, this allows you to create longer phrases and go beyond the limit of 16 steps per variation.

To link a variation to another one, press the **Alt** key and click on its quadrant in the variation selection display, as shown below.



The example below shows Variation 1 linked to Variation 2, and Variation 2 linked to Variation 1. As you trigger Variation 1, when the end of the phrase is reached, the playback switches automatically to Variation 2. Similarly, when you play Variation 2, at the end of the phrase, the playback switches automatically to Variation 1. So as long as you trigger the phrase, it will switch back and forth between Variation 1 and Variation 2. Of course you can freely create links among all 4 variations.



3.4.3 Generate Phrase

You can generate complete phrases by using the "Generate Phrase" entry from the Variation Edit menu. Select the desired length in bars, and voila' a new phrase to be used in your music! Please keep in mind that the length of the phrase is affected by the "Direction" which is currently active. If for example the Pendulum direction is active and you select to generate a 2 bar phrase, the algorithm will actually generate a 1 bar phrase which is then equal to 2 bars when traversed in either direction.

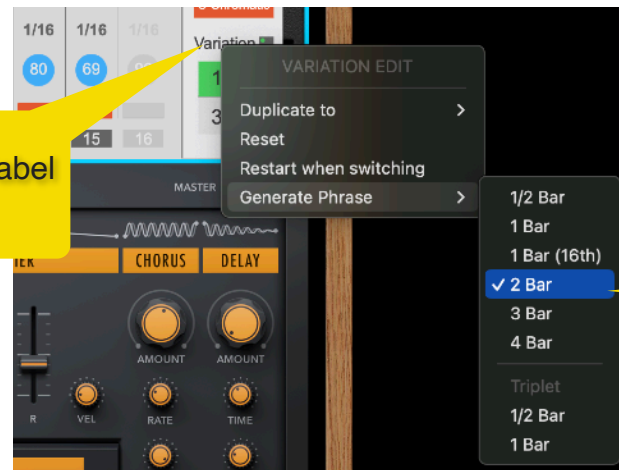


Once you select a phrase length, the downward arrow next to the Variation label turns into a “die” which can be clicked to generate another phrase, without the need to open the menu again. This makes it easier to keep generating phrases until the desired result is achieved.



Keep clicking on the generate phrase button until you get a suitable phrase

To disable the generate phrase button and return to the downward arrow, click on the “Variation” label to open the menu and deselect the previous choice.



Click on the Variation label to open the menu

Select the option with the check mark next to it to disable the generate phrase button

4. Tips and Tricks

4.1 Using the Start and End locators as selectors for editing

You can use the Start and End locators to perform editing functions. Basically, when used this way, you move the locators to a certain position in the sequence only temporarily, for the purpose of performing an editing task, and then you return them to their original positions. In section 3.3.1, there is already an example of using the locators as selectors for copy and paste of steps. Here it's another example where the goal is to create a velocity crescendo from steps 1-8 and a velocity decrescendo from steps 9-16.

Step1: set the locators between steps 1-8 by changing the number of steps

Step2: apply the crescendo preset to the selected steps

The interface shows the 'Phrase' software with 'Steps' set to 8. The 'VELOCITY EDIT' menu is open, showing options like 'Shift Left', 'Shift Right', 'Shuffle', 'Randomize', 'Reset', 'Preset', and 'EXT velocity'. The 'Preset' option is selected, and a submenu is visible with options: 'Crescendo (fixed)', 'Crescendo (variable)', 'Diminuendo (fixed)', and 'Diminuendo (variable)'.

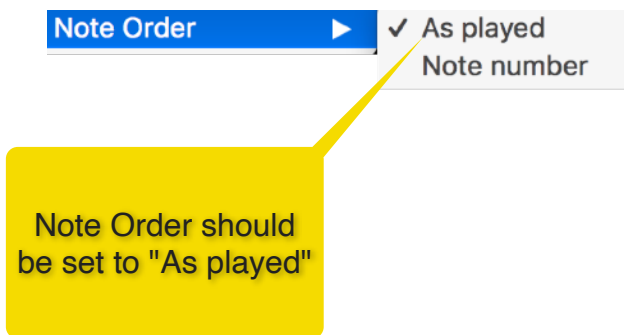


...and the velocity ramp up/down is done!

4.2 "As you go" arpeggios

In traditional arpeggiators, you set in advance the order in which the notes are played. Usually it's low to high or high to low, or a combination of those. With Phase, you can press the same three notes, and based on the order they were played, you get different results. As long as you have the Note Order set to "As Played", then this is true.

For example, load the factory patch "Arp 01" from the "Arp Variations" folder, and play a simple C Major chord (C, E, G). But instead of pressing all keys at once, press the keys one after the other. There is no reason for you to play chords this way but this makes it easier to see. You should notice that when you press the keys in different order, the resulting arpeggio will sound different. You can use this technique with more complex patches and change the sound of the sequence "as you go" just by rotating the key presses.



play the notes in different order to hear different arpeggios



4.3 Experimenting with Chord Progressions

Since Phase is capable to outputting chords, you can experiment with progressions and get some interesting results (fingers crossed). There are multiple approaches to this, but in this section, we'll discuss two of them.

The first one is great for coming up with parallel progressions which are very commonly used in genres like deep house and some IDM. For that classic sound, the key is to play a single chord (typically some 7th chord) and then use transposition to create some interesting movements.

The screenshot displays the NN-XT Remote Editor interface, which is divided into several sections. The top section is titled 'Scales & Chords' and includes a 'Chords' toggle, a 'DEFAULT' button, and a 'Scales & Chords' header. Below this, there are controls for 'NOTES', 'INVERSION', 'OPEN CHORDS', 'OCT UP', 'OCT DOWN', 'COLOR', and 'ALTER'. A keyboard display shows the chord 'Ebmaj7' selected. The middle section is titled 'Phrase' and includes a 'HOLD' button, 'Steps' (set to 4), 'Offset' (set to 0), and 'Dir' (set to >). Below these are 'PLAY MODE' buttons, a 'TRANSPOSE' section with various settings, and a 'DURATION' section with various settings. The bottom section is titled 'GLOBAL CONTROLS' and includes a 'PITCH WHEEL', 'EXTERNAL CONTROL', 'NOTE ON', 'HIGH QUALITY INTERPOLATION', and various envelope controls (FREQ, RES, ATTACK, DECAY, RELEASE, DECAY, MOD ENV, MASTER VOLUME). Annotations highlight specific features: 'Play a 7th chord using Scales&Chords' points to the 'Ebmaj7' chord on the keyboard; 'Adjust the step transposition to taste' points to the 'TRANSPOSE' section; 'Don't use scale correction' points to the 'C Chromatic' button in the 'Seq Edit' menu.

Play a 7th chord using Scales&Chords

Adjust the step transposition to taste

Don't use scale correction

This second example is for more typical chord progressions. The concept is similar to the first example, in that you use step transposition to move the chord notes around, but this time with Scale correction enabled so that the notes are being forced to the same scale, thus creating chords which are fully diatonic. And in contrast to the other example, you don't have to play the same chord, but you can change chords as you like until you find a progression that works.

The screenshot displays the NN-XT Remote Editor interface, which is divided into several sections for controlling a synthesizer or digital piano.

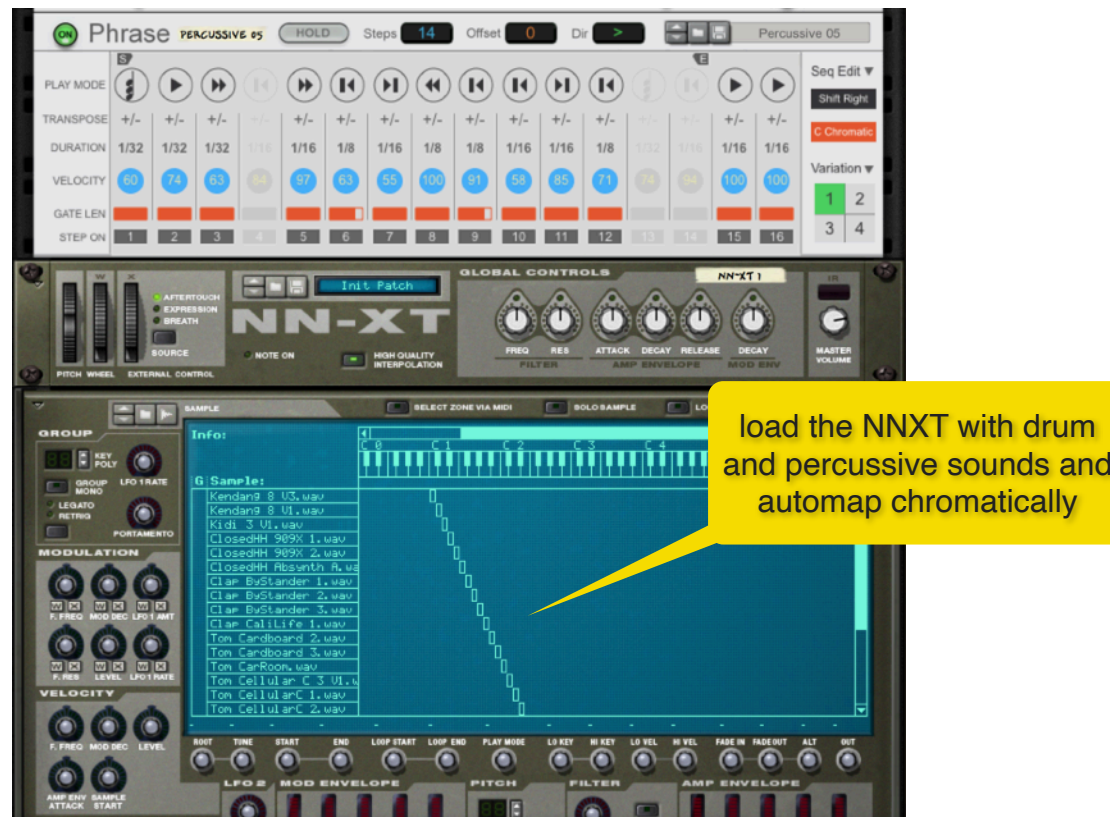
- Scales & Chords Section:**
 - Scales:** Includes a 'KEY' dropdown set to 'C' and a 'SCALE' dropdown set to 'Minor'. A 'FILTER NOTES' toggle is also present.
 - Chords:** Features a 'NOTES' knob, an 'INVERSION' knob, and an 'OPEN CHORDS' toggle. A 'COLOR' knob and an 'ALTER' button are also visible.
 - Keyboard:** A digital piano keyboard is shown with the 'Cm' (C minor) chord highlighted.
- Phrase Section:**
 - PLAY MODE:** A row of buttons for different play modes.
 - TRANSPOSE:** A row of buttons for transposing the phrase by various intervals (e.g., +/-, -1, +2, -2).
 - DURATION:** A row of buttons for different note durations (e.g., 1/4, 1/16).
 - VELOCITY:** A row of buttons for different velocities (e.g., 73, 86, 98, 100).
 - GATE LEN:** A row of buttons for different gate lengths.
 - STEP ON:** A row of buttons for different step-on values (1 through 16).
- Seq Edit Section:**
 - Rand 50%:** A button for randomizing 50% of the sequence.
 - C Major:** A button for selecting the C Major scale.
 - Variation:** A dropdown menu for selecting different variations (1, 2, 3, 4).
- GLOBAL CONTROLS Section:**
 - FREQ, RES, ATTACK, DECAY, RELEASE, DECAY:** A row of knobs for controlling the sound's frequency, resonance, attack, decay, release, and decay.
 - MASTER VOLUME:** A knob for controlling the overall volume.

Yellow callouts provide additional context:

- Play a chord or more:** Points to the 'Scales' section, indicating that the user can play a chord or more.
- Apply transposition to taste:** Points to the 'TRANSPOSE' section, indicating that the user can apply transposition to taste.
- Use scale correction:** Points to the 'C Major' variation in the 'Seq Edit' section, indicating that the user can use scale correction.

4.4 Percussive ideas

Some interesting results can be obtained when using Phrase with drum samples. The trick of using arpeggiators to create drum fills is well known. Because Phrase can also send multiple notes per step and each step can have its own duration, things can get even more interesting. You can hook up Phrase to one of the stock drum machines, like Kong or Redrum. But if you want to get even more bang for your buck, we recommend using an NNXT with loads of drum or percussive samples loaded. This will increase the chance for happy accidents. In the example below, an NNXT with over 30 drum samples is used. Try it with some of the patches from the "Percussive" folder and see what you can come up with!



4.5 Short and Sweet

Sometimes you only need a few steps to get interesting results. With the right synth patch, you can create some great textures by using fast steps and high transpositions. In the example below, we are using Europa with the default patch. In Phrase, the sequence consists only of 3 steps with some significant transpositions. By adjusting the Amp settings on the synth, you can go from staccato to more ambient textures with minimal effort. To keep everything within your working key and scale, you can use the built in note correction.



use only few steps with fast durations and high transpositions

turn on note correction if you want to stay within the chosen key and scale

adjust the Amp settings to create your desired texture

5. MIDI Implementation

MIDI CC - Parameter

[4] = Variation
[5] = NumberSteps_P1
[7] = NumberSteps_P2
[8] = NumberSteps_P3
[10] = NumberSteps_P4
[12] = OffsetSteps_P1
[13] = OffsetSteps_P2
[14] = OffsetSteps_P3
[15] = OffsetSteps_P4
[16] = Direction_P1
[17] = Direction_P2
[18] = Direction_P3
[19] = Direction_P4
[20] = Scale_P1
[21] = Scale_P2
[22] = Scale_P3
[23] = Scale_P4
[24] = Key_P1
[25] = Key_P2
[26] = Key_P3
[27] = Key_P4
[28] = Transpose1_P1
[29] = Transpose2_P1
[30] = Transpose3_P1
[31] = Transpose4_P1
[33] = Transpose5_P1
[34] = Transpose6_P1
[35] = Transpose7_P1
[36] = Transpose8_P1
[37] = Transpose9_P1

[39] = Transpose10_P1
[40] = Transpose11_P1
[41] = Transpose12_P1
[42] = Transpose13_P1
[43] = Transpose14_P1
[44] = Transpose15_P1
[45] = Transpose16_P1
[46] = Transpose1_P2
[47] = Transpose2_P2
[48] = Transpose3_P2
[49] = Transpose4_P2
[50] = Transpose5_P2
[51] = Transpose6_P2
[52] = Transpose7_P2
[53] = Transpose8_P2
[54] = Transpose9_P2
[55] = Transpose10_P2
[56] = Transpose11_P2
[57] = Transpose12_P2
[58] = Transpose13_P2
[59] = Transpose14_P2
[60] = Transpose15_P2
[61] = Transpose16_P2

[62] = Transpose1_P3
[63] = Transpose2_P3
[65] = Transpose3_P3
[66] = Transpose4_P3
[67] = Transpose5_P3
[68] = Transpose6_P3
[69] = Transpose7_P3
[70] = Transpose8_P3
[71] = Transpose9_P3
[72] = Transpose10_P3
[73] = Transpose11_P3
[74] = Transpose12_P3
[75] = Transpose13_P3
[76] = Transpose14_P3
[77] = Transpose15_P3
[78] = Transpose16_P3
[79] = Transpose1_P4
[80] = Transpose2_P4
[81] = Transpose3_P4
[82] = Transpose4_P4
[83] = Transpose5_P4
[84] = Transpose6_P4
[85] = Transpose7_P4
[86] = Transpose8_P4
[87] = Transpose9_P4
[88] = Transpose10_P4
[89] = Transpose11_P4
[90] = Transpose12_P4
[91] = Transpose13_P4
[92] = Transpose14_P4
[93] = Transpose15_P4
[94] = Transpose16_P4
[95] = OnOff

6. Remote Implementation

To obtain the complete list of all the available parameters which are controllable via Remote, use the "Extract Device Remote Info" from the File menu in Reason. Here is a partial list of all available parameters.

Scope					Transpose11 Var2	0	48	Value	ValueOutput	Transpose10 Var4	0	48	Value	ValueOutput
Manufacturer	Model				Transpose12 Var2	0	48	Value	ValueOutput	Transpose11 Var4	0	48	Value	ValueOutput
Retouch Control	com.retouchcontrol.Phrase				Transpose13 Var2	0	48	Value	ValueOutput	Transpose12 Var4	0	48	Value	ValueOutput
Remotable	Min	Max	Input type	Output type	Transpose14 Var2	0	48	Value	ValueOutput	Transpose13 Var4	0	48	Value	ValueOutput
Steps Var1	0	15	Value	ValueOutput	Transpose15 Var2	0	48	Value	ValueOutput	Transpose14 Var4	0	48	Value	ValueOutput
Offset Var1	0	15	Value	ValueOutput	Transpose16 Var2	0	48	Value	ValueOutput	Transpose15 Var4	0	48	Value	ValueOutput
Dir Var1	0	6	Value	ValueOutput	Steps Var3	0	15	Value	ValueOutput	Transpose16 Var4	0	48	Value	ValueOutput
Scale Var1	0	18	Value	ValueOutput	Offset Var3	0	15	Value	ValueOutput	Variation	0	3	Value	ValueOutput
Key Var1	0	11	Value	ValueOutput	Dir Var3	0	6	Value	ValueOutput	Step1 Var1	0	1	Toggle	ValueOutput
Transpose1 Var1	0	48	Value	ValueOutput	Scale Var3	0	18	Value	ValueOutput	Step2 Var1	0	1	Toggle	ValueOutput
Transpose2 Var1	0	48	Value	ValueOutput	Key Var3	0	11	Value	ValueOutput	Step3 Var1	0	1	Toggle	ValueOutput
Transpose3 Var1	0	48	Value	ValueOutput	Transpose1 Var3	0	48	Value	ValueOutput	Step4 Var1	0	1	Toggle	ValueOutput
Transpose4 Var1	0	48	Value	ValueOutput	Transpose2 Var3	0	48	Value	ValueOutput	Step5 Var1	0	1	Toggle	ValueOutput
Transpose5 Var1	0	48	Value	ValueOutput	Transpose3 Var3	0	48	Value	ValueOutput	Step6 Var1	0	1	Toggle	ValueOutput
Transpose6 Var1	0	48	Value	ValueOutput	Transpose4 Var3	0	48	Value	ValueOutput	Step7 Var1	0	1	Toggle	ValueOutput
Transpose7 Var1	0	48	Value	ValueOutput	Transpose5 Var3	0	48	Value	ValueOutput	Step8 Var1	0	1	Toggle	ValueOutput
Transpose8 Var1	0	48	Value	ValueOutput	Transpose6 Var3	0	48	Value	ValueOutput	Step9 Var1	0	1	Toggle	ValueOutput
Transpose9 Var1	0	48	Value	ValueOutput	Transpose7 Var3	0	48	Value	ValueOutput	Step10 Var1	0	1	Toggle	ValueOutput
Transpose10 Var1	0	48	Value	ValueOutput	Transpose8 Var3	0	48	Value	ValueOutput	Step11 Var1	0	1	Toggle	ValueOutput
Transpose11 Var1	0	48	Value	ValueOutput	Transpose9 Var3	0	48	Value	ValueOutput	Step12 Var1	0	1	Toggle	ValueOutput
Transpose12 Var1	0	48	Value	ValueOutput	Transpose10 Var3	0	48	Value	ValueOutput	Step13 Var1	0	1	Toggle	ValueOutput
Transpose13 Var1	0	48	Value	ValueOutput	Transpose11 Var3	0	48	Value	ValueOutput	Step14 Var1	0	1	Toggle	ValueOutput
Transpose14 Var1	0	48	Value	ValueOutput	Transpose12 Var3	0	48	Value	ValueOutput	Step15 Var1	0	1	Toggle	ValueOutput
Transpose15 Var1	0	48	Value	ValueOutput	Transpose13 Var3	0	48	Value	ValueOutput	Step16 Var1	0	1	Toggle	ValueOutput
Transpose16 Var1	0	48	Value	ValueOutput	Transpose14 Var3	0	48	Value	ValueOutput	Step1 Var2	0	1	Toggle	ValueOutput
Steps Var2	0	15	Value	ValueOutput	Transpose15 Var3	0	48	Value	ValueOutput	Step2 Var2	0	1	Toggle	ValueOutput
Offset Var2	0	15	Value	ValueOutput	Transpose16 Var3	0	48	Value	ValueOutput	Step3 Var2	0	1	Toggle	ValueOutput
Dir Var2	0	6	Value	ValueOutput	Steps Var4	0	15	Value	ValueOutput	Step4 Var2	0	1	Toggle	ValueOutput
Scale Var2	0	18	Value	ValueOutput	Offset Var4	0	15	Value	ValueOutput	Step5 Var2	0	1	Toggle	ValueOutput
Key Var2	0	11	Value	ValueOutput	Dir Var4	0	6	Value	ValueOutput	Step6 Var2	0	1	Toggle	ValueOutput
Transpose1 Var2	0	48	Value	ValueOutput	Scale Var4	0	18	Value	ValueOutput	Step7 Var2	0	1	Toggle	ValueOutput
Transpose2 Var2	0	48	Value	ValueOutput	Key Var4	0	11	Value	ValueOutput	Step8 Var2	0	1	Toggle	ValueOutput
Transpose3 Var2	0	48	Value	ValueOutput	Transpose1 Var4	0	48	Value	ValueOutput	Step9 Var2	0	1	Toggle	ValueOutput
Transpose4 Var2	0	48	Value	ValueOutput	Transpose2 Var4	0	48	Value	ValueOutput	Step10 Var2	0	1	Toggle	ValueOutput
Transpose5 Var2	0	48	Value	ValueOutput	Transpose3 Var4	0	48	Value	ValueOutput	Step11 Var2	0	1	Toggle	ValueOutput
Transpose6 Var2	0	48	Value	ValueOutput	Transpose4 Var4	0	48	Value	ValueOutput	Step12 Var2	0	1	Toggle	ValueOutput
Transpose7 Var2	0	48	Value	ValueOutput	Transpose5 Var4	0	48	Value	ValueOutput	Step13 Var2	0	1	Toggle	ValueOutput
Transpose8 Var2	0	48	Value	ValueOutput	Transpose6 Var4	0	48	Value	ValueOutput	Step14 Var2	0	1	Toggle	ValueOutput
Transpose9 Var2	0	48	Value	ValueOutput	Transpose7 Var4	0	48	Value	ValueOutput	Step15 Var2	0	1	Toggle	ValueOutput
Transpose10 Var2	0	48	Value	ValueOutput	Transpose8 Var4	0	48	Value	ValueOutput	Step16 Var2	0	1	Toggle	ValueOutput
					Transpose9 Var4	0	48	Value	ValueOutput	Step1 Var3	0	1	Toggle	ValueOutput

7. Version History

Version 1.0.0: initial release

Version 1.0.3:

Added: Cmd(Mac)/Ctrl(Win) + click to reset a step parameter

Added: Locrian and Super-Locrian scales

Fixed: device error when controlling the scale parameter from a combinator knob

Fixed: shift up/down commands from the Transpose edit menu now only affects the steps which have transpositions

Fixed: "Last" play mode not working as expected when "Note Order" was set to "Note Number"

Fixed: "Scale" and "Key" are now properly labelled when automated in the sequencer

Version 1.0.5:

Added: option under Globals, "Cycle Prev and Next play modes"

Added: "Tie" play mode to tie steps together

Added: expanded Reset options under the Play Mode edit menu

Fixed: in some instances, "Send Notes to Track" would create overlapping notes

Fixed: Variation label was not legible in the inspector when automated

Version 1.0.6: optimizations for Reason 12 HD

Version 1.0.8:

Added: On/Off automation and remote control

Fixed: stuck notes when turning On the device after processing notes in Off mode

Fixed: stuck notes with "Hold" button engaged and next step set to "Tie"

Fixed: variation 4 did not quantize notes to the selected key and scale

Version 1.0.9:

Added: "Insert Step at" and "Remove Step at" in the Sequence Edit menu

Added: "Random Walk" choice for sequence direction

Version 1.1.0:

Fixed: On/Off button state not remembered correctly when re-opening a saved song

Fixed: "Shift Up" and "Shift Down" from the Transpose edit menu did not change steps with zero transposition

Added: New Arp and Chord patches, plus new Analog Sequences for classic Berlin style sounds

Version 1.2.0:

- Added: Play Mode Randomization options from the Play Mode menu
- Added: "Skip Previous" and "Skip Next" play modes
- Added: "Generate Pattern" from the Duration Edit menu
- Added: Step Trigger Probabilities
- Added: "Paste Special" from the Step Edit Menu
- Added: Shortcuts to change the step transpositions by clicking and dragging on the Transpose label
- Added: Automatic phrase generation from the Variation Edit menu

Version 1.3.0:

Added:

- Variation Link to create longer phrases by linking together different variations
- Generate Phrase Button to quickly generate new phrases
- 1 bar (16th) Generate Phrase option
- Automation Button under the Variation selection display to quickly create an automation lane for the *Variation Select* parameter

Fixed:

- Improvements to the Generate Phrase algorithm
- Improvements to the Scale/Key correction algorithm