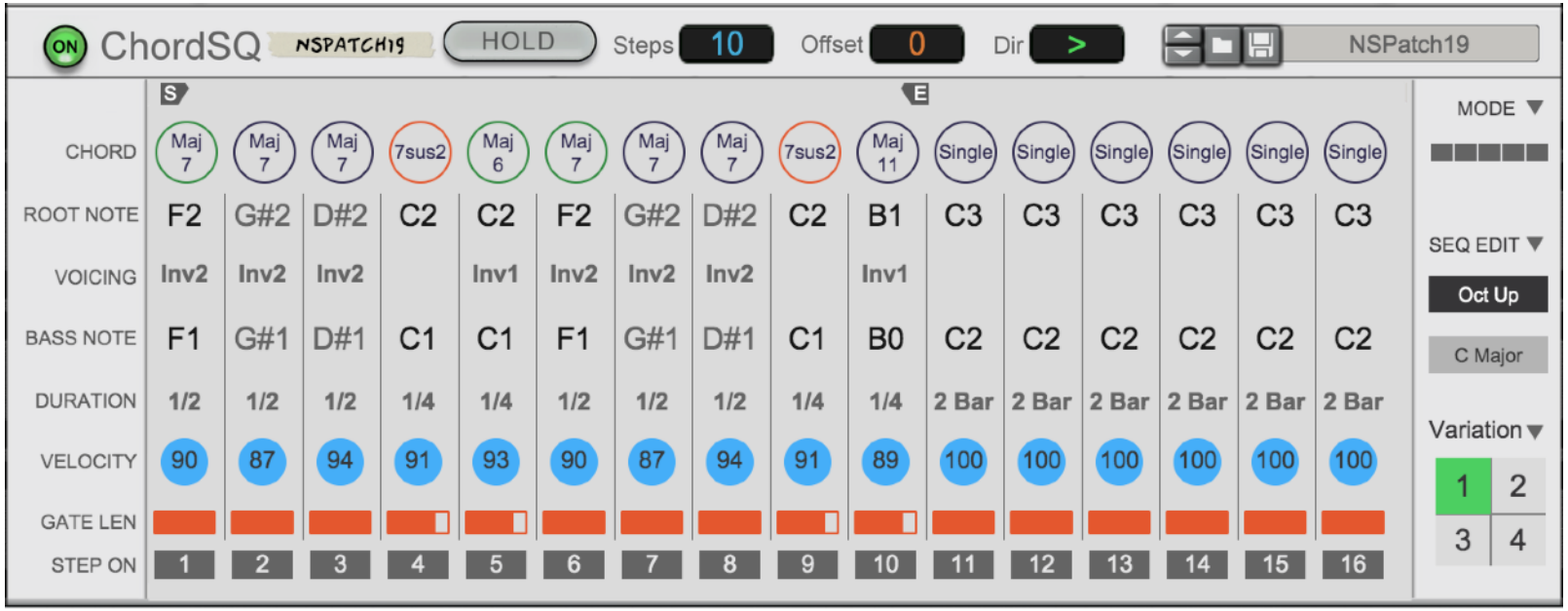
ChordSQ

Chord Sequencer Player

Rack Extension for Reason



USER MANUAL

version 1.3.0

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1. Introduction

ChordSQ is a player instrument for the Reason rack designed to help you create chord progressions. The device interface does away with the traditional piano roll and offers an intuitive way to achieve results fast. It's easy to create or modify progressions in just a few clicks. No drawing of notes required.

At the heart of the player is a 16-step sequencer which can be synced to the host transport or can be triggered by MIDI notes. For each step of the sequence, you select a root note and choose a chord from the many available presets. Then you can change the chord voicing, add a bass note, set a duration and velocity. Each parameter has dedicated edit menus so that the selected steps can be altered easily. To help you choose chords, set a key and scale and all compatible chords for each scale degree are available from the chord type menu.The interface conveniently highlights which notes and chords are in the scale. A customizable randomization engine can help spark new ideas, but if you want to to keep things in check, all outgoing notes can be quantized to the selected key and scale. For both Major and Minor scales, it is possible to automatically generate chord progressions and chord sets in just a mouse click!

The device has four operation modes. In mode 1, any note triggers the sequence. In mode 2, a note triggers the sequence and it also transposes it up or down (no transposition when you play C3). In mode 3, notes C1 to D#2 play the chords in slots 1 to 16 without triggering the sequence. This mode turns the player into a one-finger chorder which can store 16 different chords per variation for a total of 64 chords per patch. Finally, in mode 4 the internal sequencer is synced to the host transport so the chord sequence starts playing as soon as you press play in Reason.

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

Product Details:

- Four operation modes:
    1. any key press triggers the sequence
    2. a key press triggers and transposes the sequence
    3. keys C1 to D#2 play the chords individually, do not trigger the sequence (chorder mode)
    4. chord sequence is synced to the host transport
- 16 step sequencer with adjustable number of steps, start offset and travel direction
- Each step has the following parameters:
    1. Step On - steps can be turned on or off. When a step is turned off, it acts like a note rest
    2. Gate Length - there are 4 settings which determine the note lengths relative to the step duration
    3. Velocity - the velocity of the outgoing notes for the given step
    4. Duration - independent for each step, from as short as 1/64 to as long as 4 bars
    5. Bass Note - additional note in the range from C-2 to B5 to be played with the chord (can be turned off)
    6. Voicing - 11 voicing types, including inversions and root-less options
    7. Root Note - base note of the chord in the range from C0 to B7
    8. Chord Type - 60 presets including major, minor, dominant, augmented, diminished and suspended chords
- Various editing menus to quickly create and modify sequences for a single row of parameters or for the entire sequence
- Fast edit button which remember the last editing function performed
- Automatic generation of chord progression and chord sets for the Major and Minor scales
- Visual representation of notes and chords in the selected key and scale, plus optional note quantization
- Compatible chords in the selected key and scale are available from the chord menu for each scale degree
- Several options to display scale notes in Roman numerals
- Chord type and voicing randomization percentages
- Hold button
- 4 variations per patch with easy duplication and reset
- Play quantization to a selectable time division
- Adjustable swing from light to heavy, plus three levels of velocity humanization
- Automation of sequence parameters, root note, voicing and chord type for all 4 variations
- Comprehensive Remote implementation

2. Overview

2.1 Front

1. Main interface for programming the sequence. Each step has a set of parameters which can be set independently from the rest.

2. Programmable displays for setting the number of steps in the sequence, the starting position offset, and the direction

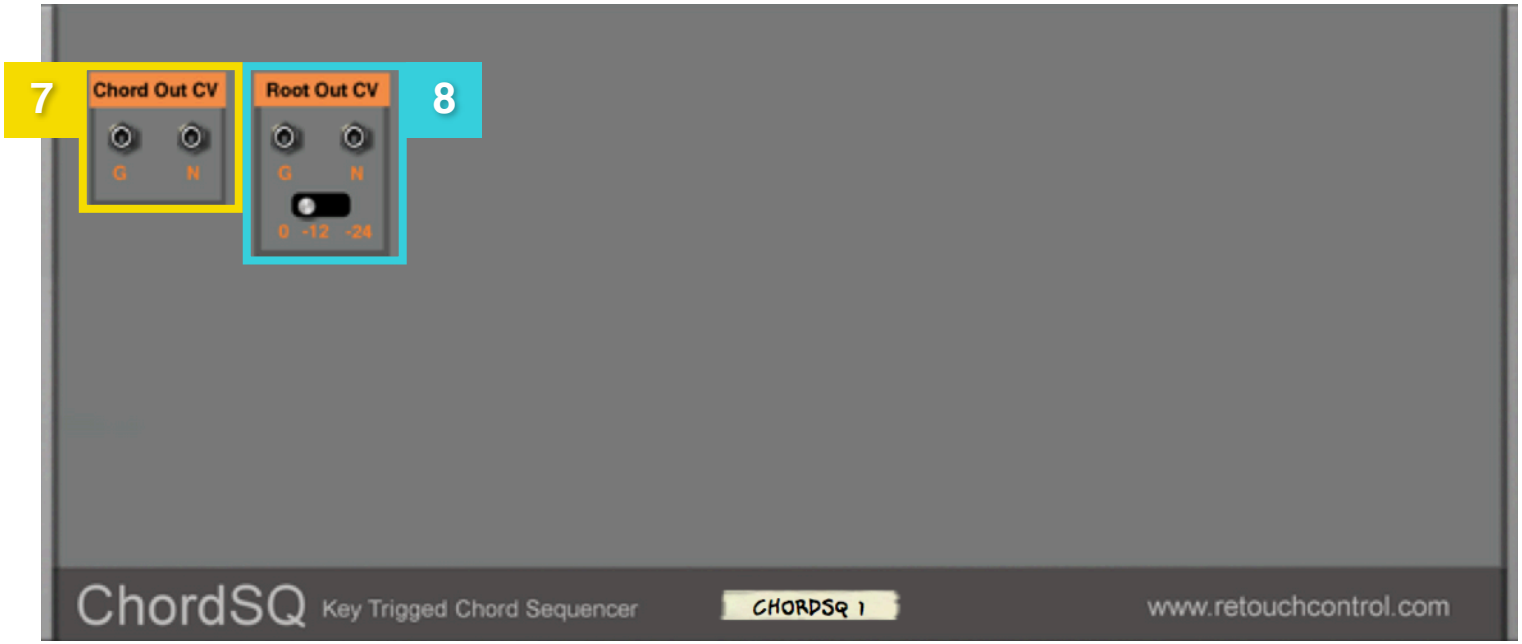
3. Clicking on one of the labels opens an "Edit" menu for that specific parameter. The editing functions affect those steps which are included between the "Start" and "End" step locators (shown with an "S" and "E" labels above the main sequencing area)

4. There are 4 input modes. In mode 1, any incoming note triggers the start of the sequence. In mode 2, an incoming note triggers and transposes the sequence (C3 no transposition). In mode 3, notes C1 to D#2 trigger the chord slots 1 to 16 respectively without triggering the sequence. In mode 4, the sequence is synced to the host transport.

5. 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" locators. The black button remembers the last edit function which was performed from the menu. The grey button is used to set a key and scale.

6. 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 of sequence variations.

2.2 Back



7. Gate and Note CV outputs for the chords. You can connect these to any device and play the chords via CV. You can also use these outputs to connect one or more NoteSet players for correcting incoming notes based on the playing chord.

8. Gate and Note CV outputs for the root note. You can connect these to any device and play only the root note via CV. Additionally you can transpose down the root note by one or two octaves. Great for playing bass parts!

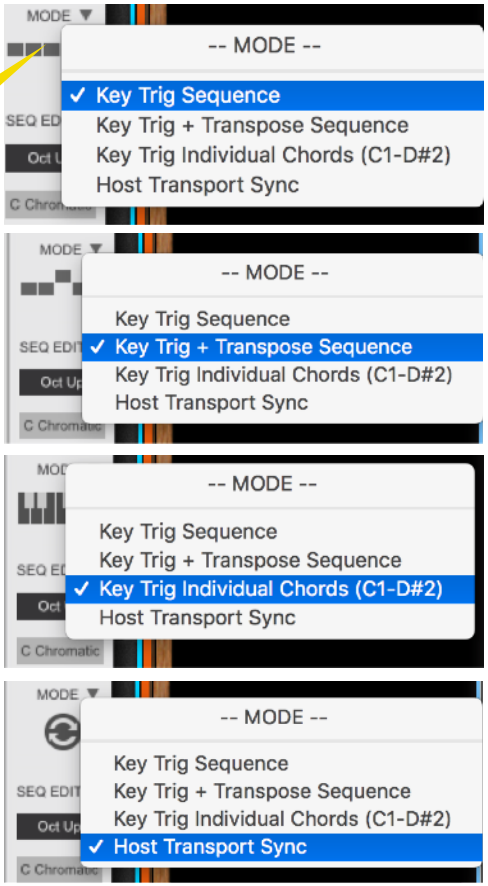
3. Usage

ChordSQ is a player device and hence it needs to be instantiated on top of an instrument. This can be a synth or a sampler. There are several ways to trigger the chord sequence. These are described in the next section, "Operation Modes".

3.1 Operation Modes

The operation mode dictates how the chord sequence is triggered. To select an operation mode, click on the "MODE" text in the upper right corner of the device, as shown below.

click on the **Mode** label



Mode 1: any incoming midi note will trigger the sequence

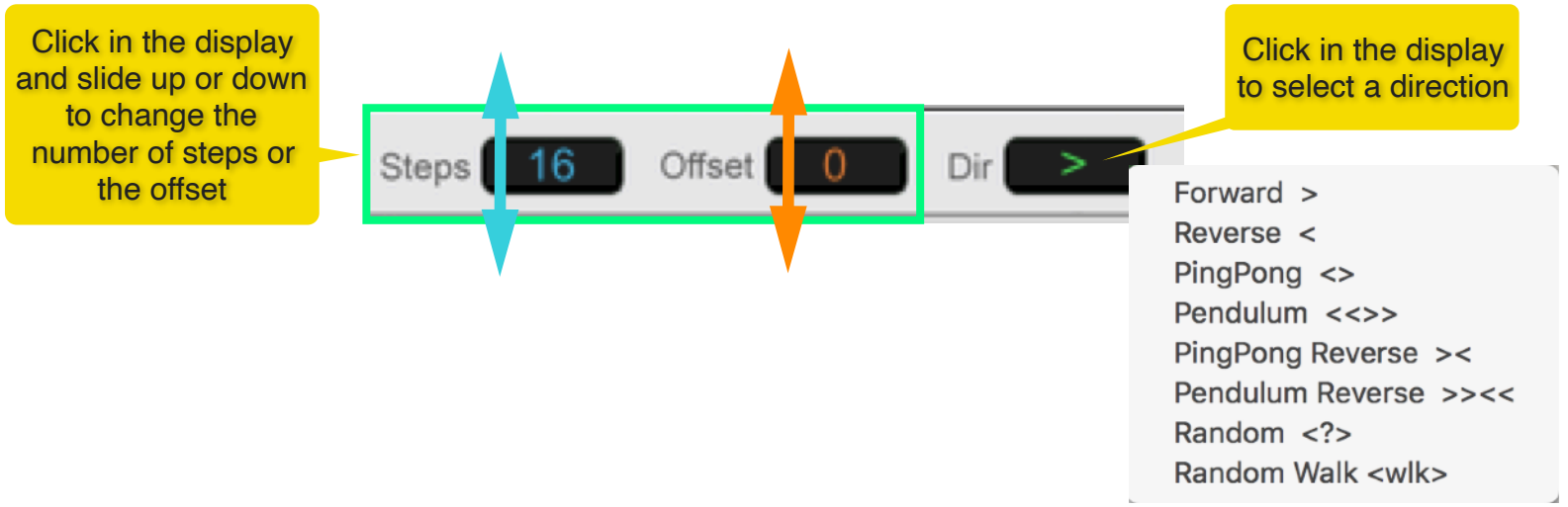
Mode 2: any incoming midi note will trigger the sequence and transpose it up or down (C3 no transposition)

Mode 3: midi notes C1 to D#2 will trigger the chords stored in slots 1 thru 16 respectively and the sequence in **not** triggered

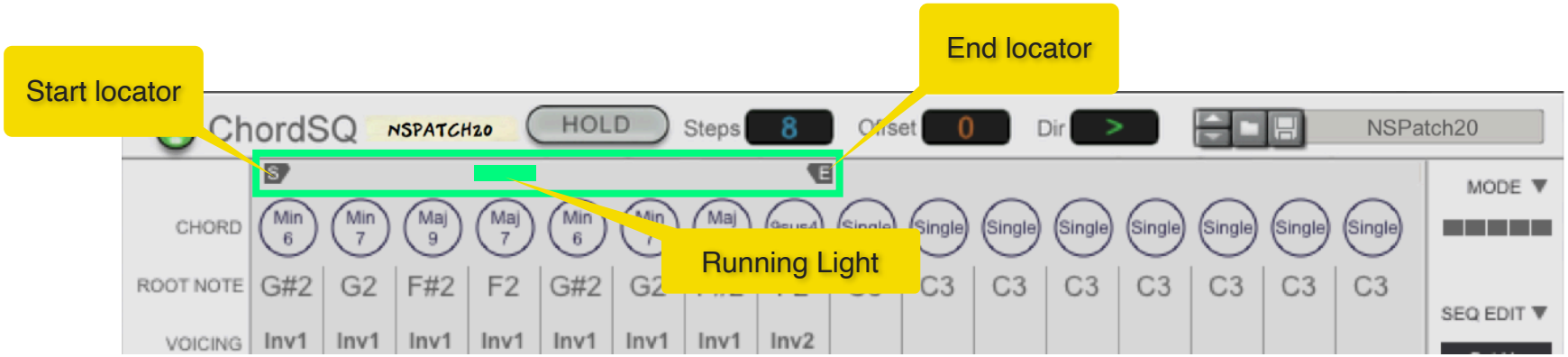
Mode 4: the chord sequence is synced to the host transport and starts playing as soon as you press play in Reason

3.2 Sequencer basics

3.2.1 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 se 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

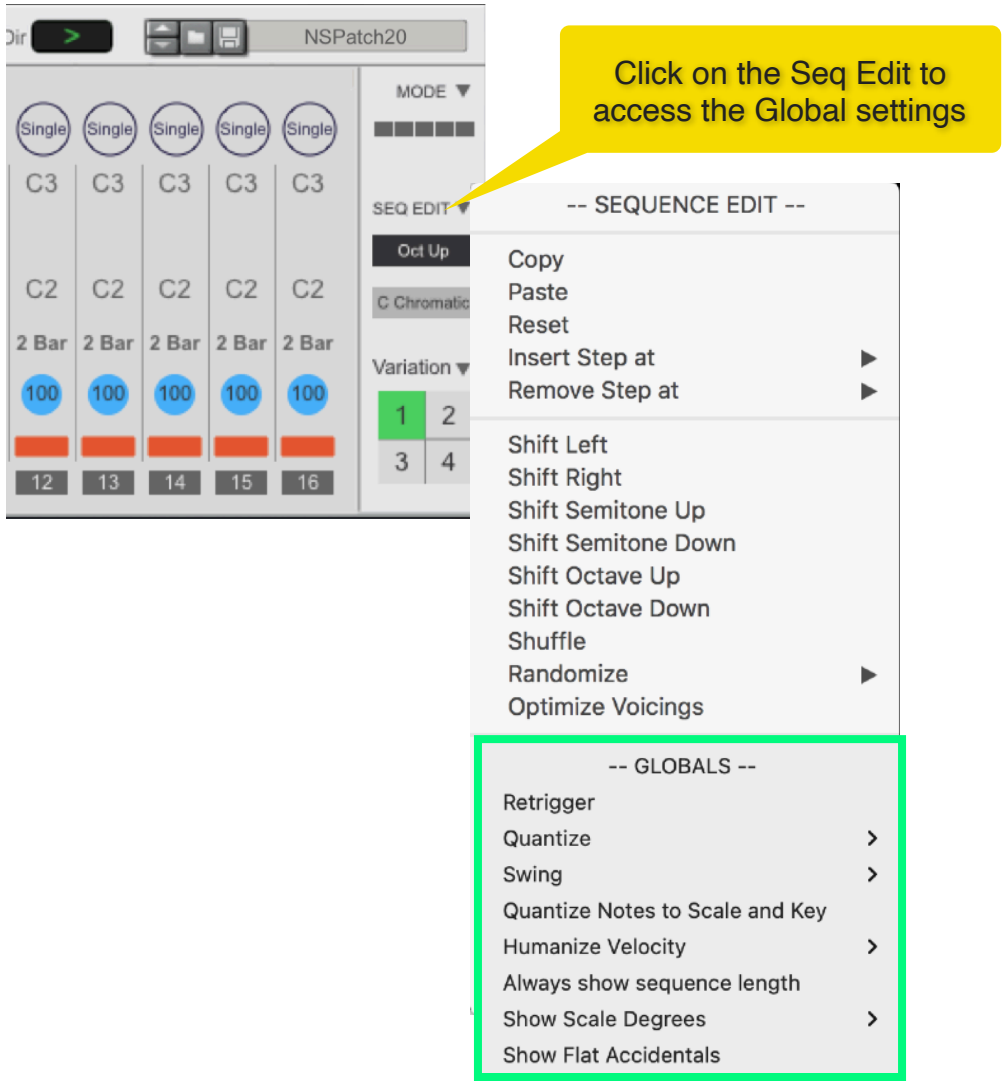
Pendulum Reverse >><< same as Pendulum, but starting from the end step in reverse direction

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

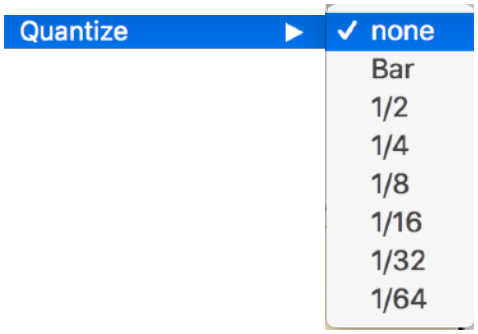
Random Walk <wlk> sequence steps in a random walk fashion between the start and end locators

3.2.3 Sequence Global Parameters

The global parameters affect how the sequence is played. These can be accessed by clicking on the "Step Edit" label as shown below



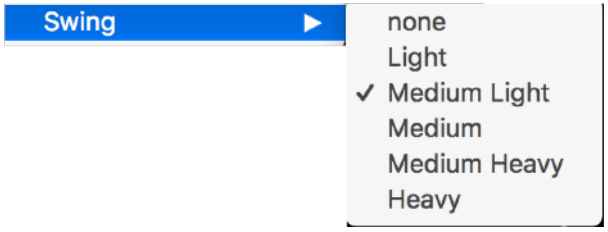
if Retrigger is enabled, pressing on a new key while another key is held down will restart the sequence from its Start position. If Retrigger is disabled, pressing a new key while another one is held down will not restart the sequence which continues to play from its current position, also know as **Legato**.



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".

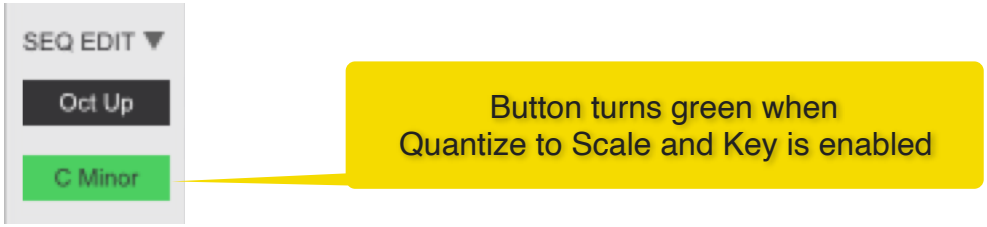
If Quantize is set to "**none**", the sequence starts as soon as you press a key, regardless of whether the Reason sequencer is running or not.



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.

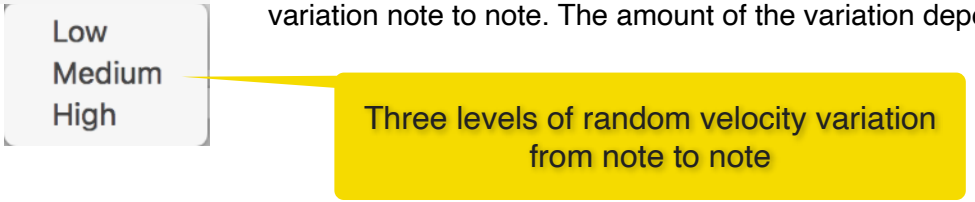
Quantize Notes to Scale and Key

if **enabled**, any note leaving the player will be corrected to match the selected Key and Scale. As a visual indication, the Key and Scale button turns green.



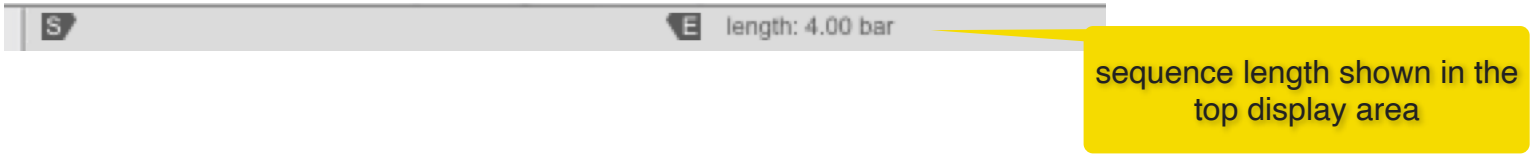
Humanize Velocity ▶

if **enabled**, the notes in the chord will be played with a random amount of velocity variation note to note. The amount of the variation depends on the intensity level.



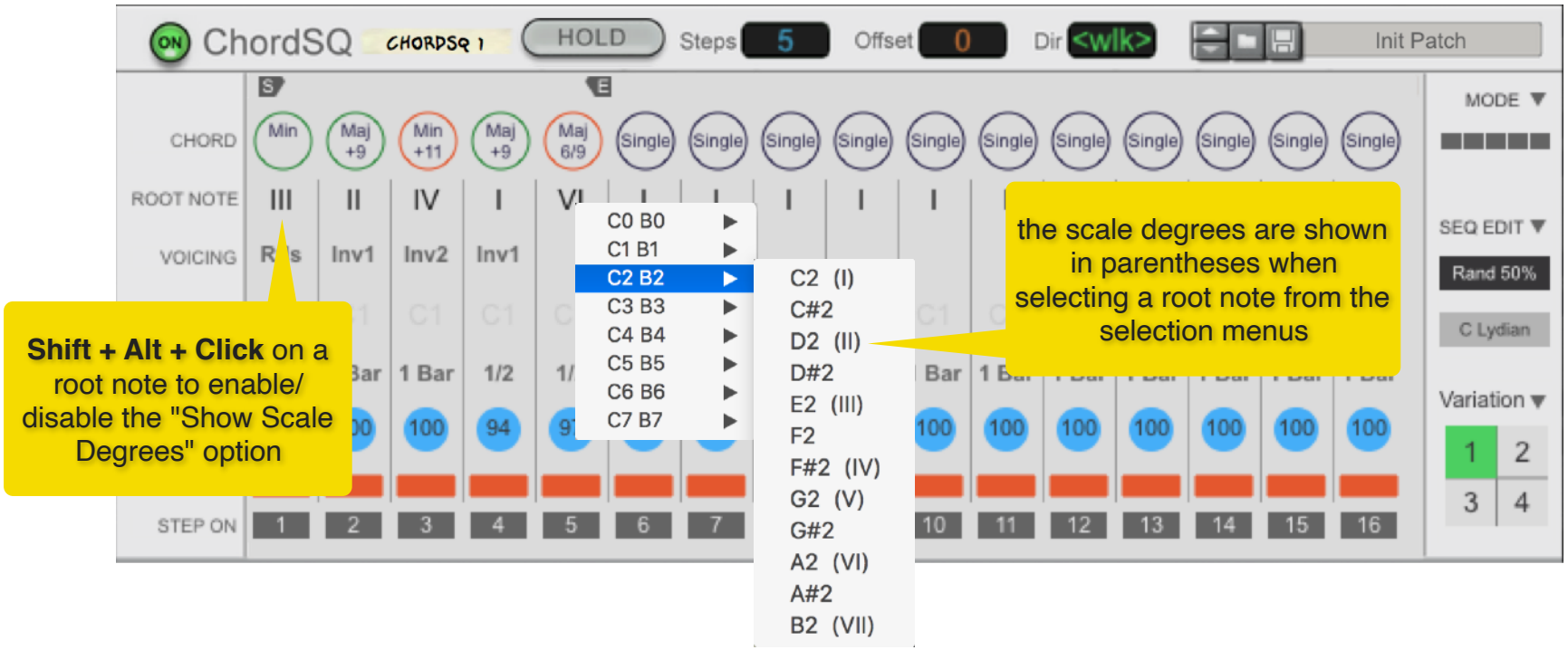
Always show sequence length

if **enabled**, the length of the sequence between the Start and End point locators is always shown in the top display area.

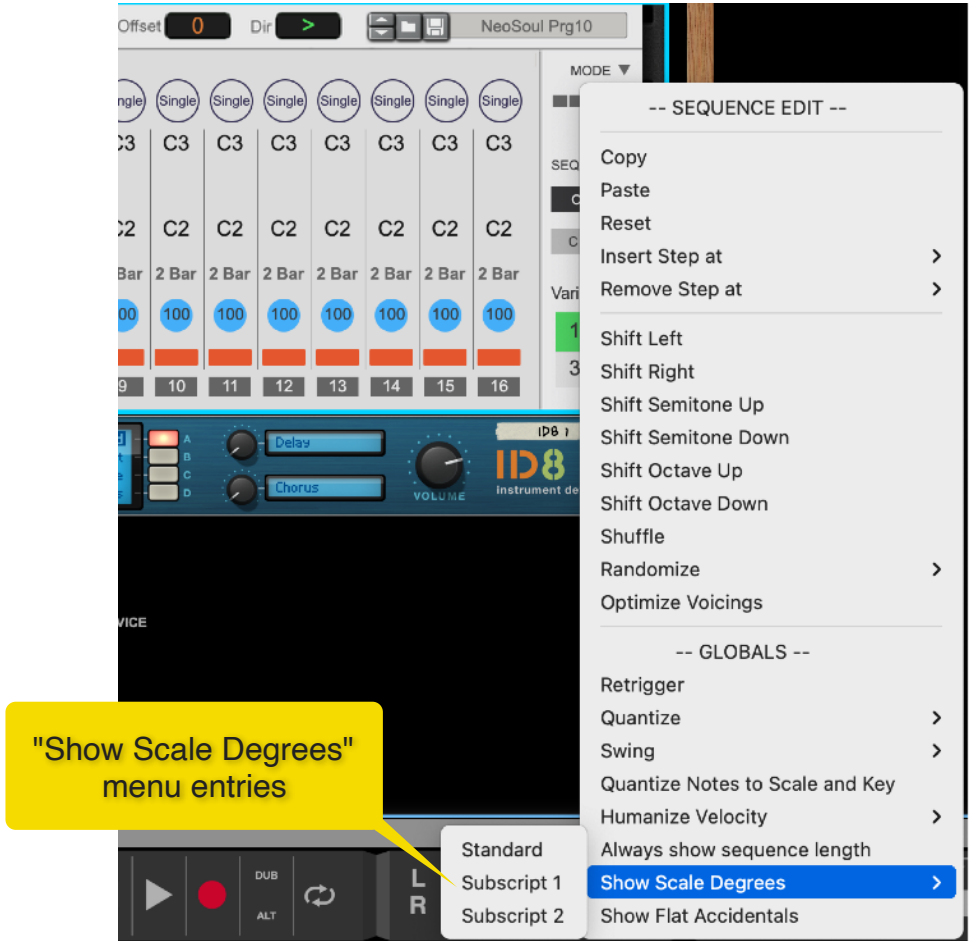


Show Scale Degrees

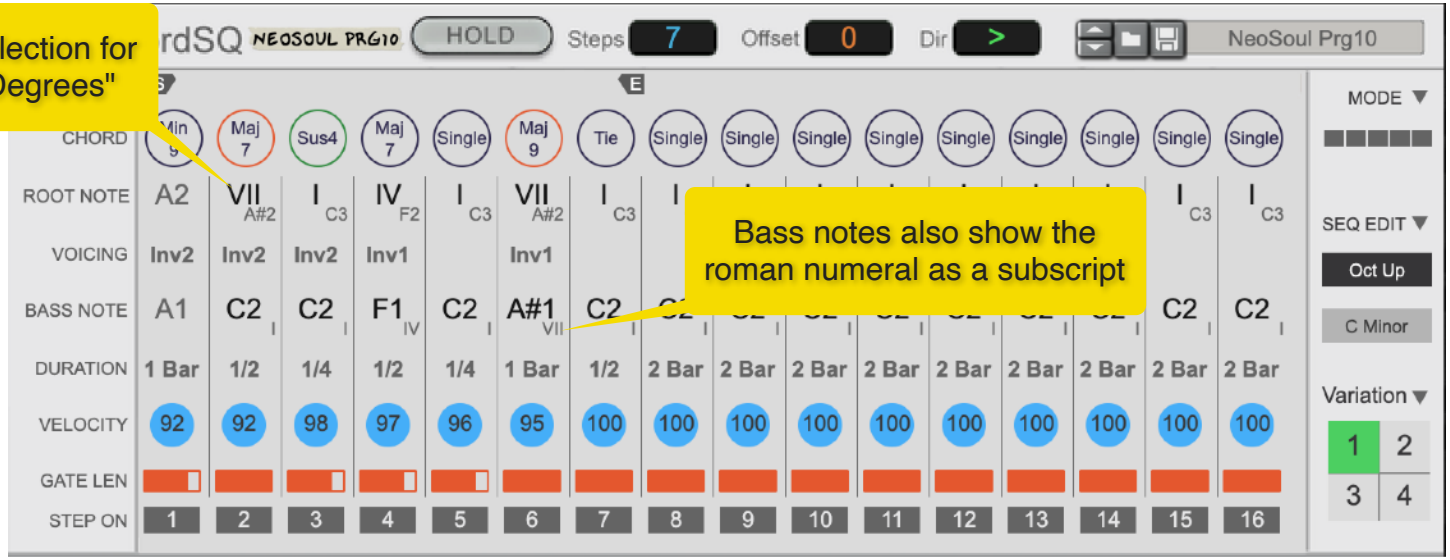
when a scale other than Chromatic is selected, enabling "Show Scale Degrees" will display the root notes in roman numerals according to their position in the scale. For example, in the key of C Major, C is represented as "**I**" being the first degree in the scale. If the key of G Minor is selected instead, then G is represented as "I". So on for the other notes in the scale. You can also enable the "Show Scale Degrees" option by "*Shift + Alt + click*" on any root note.



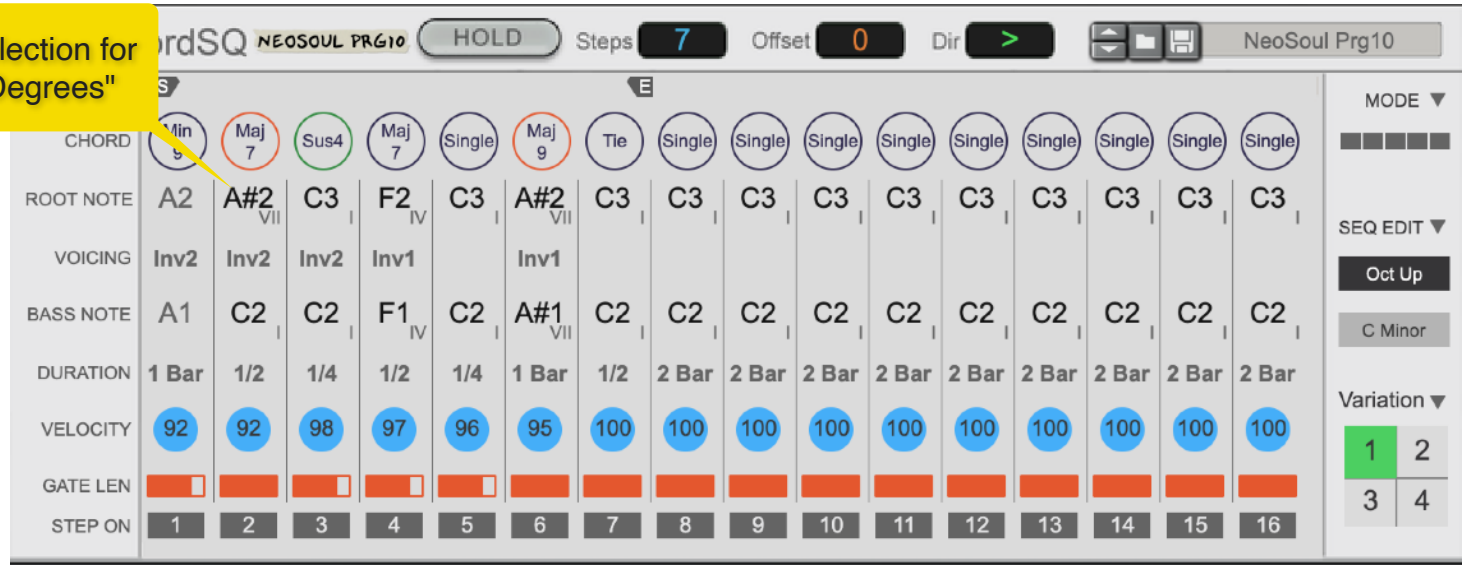
Two new options "Subscript 1" and "Subscript 2" have been added to the menu entry which provide alternative ways to display the note names and roman numerals for both the root notes and the bass notes. See below for some examples.



"Subscript 1" selection for "Show Scale Degrees"

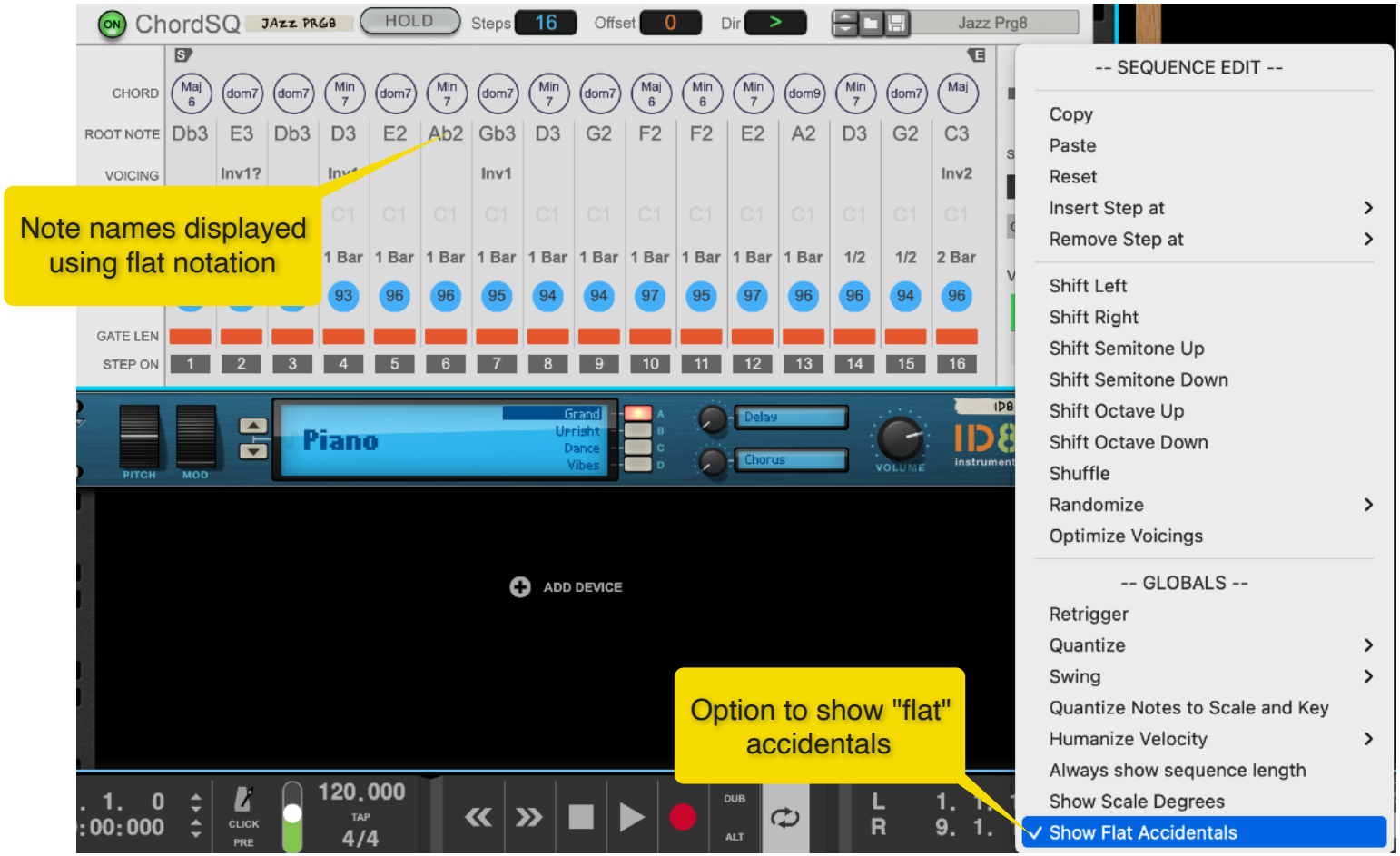


"Subscript 2" selection for "Show Scale Degrees"



Show Flat Accidentals

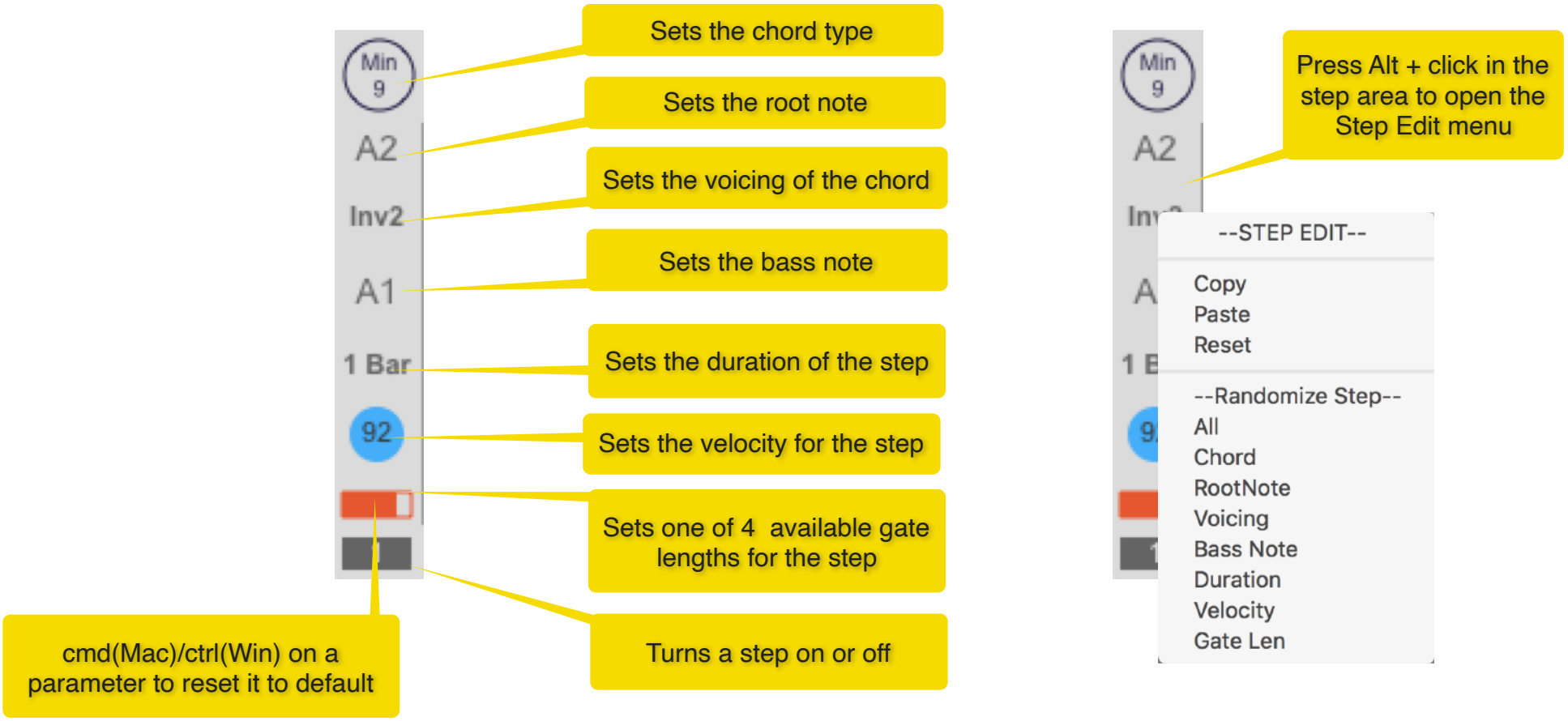
It is possible to choose if to display note names using either "sharp" (default) or "flat" accidentals, as shown below.



3.2 Programming Steps

3.2.1 Anatomy of a Step

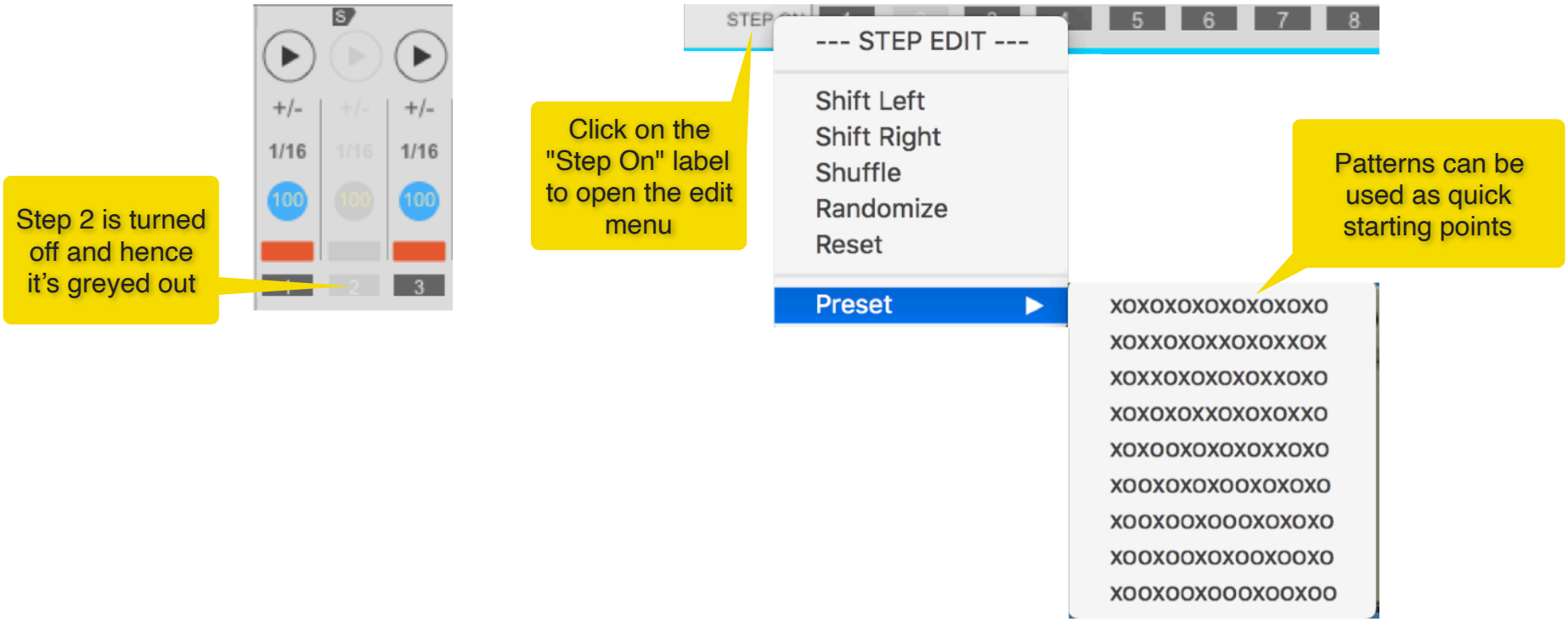
Each step has a set of identical parameters which can be set independently of each other. You create sequences by adjusting these parameters. To make editing faster, each parameter has its own editing menu which allows to edit multiple steps at once. If you press "Alt" and then click on in the step area,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



3.2.2 Step On

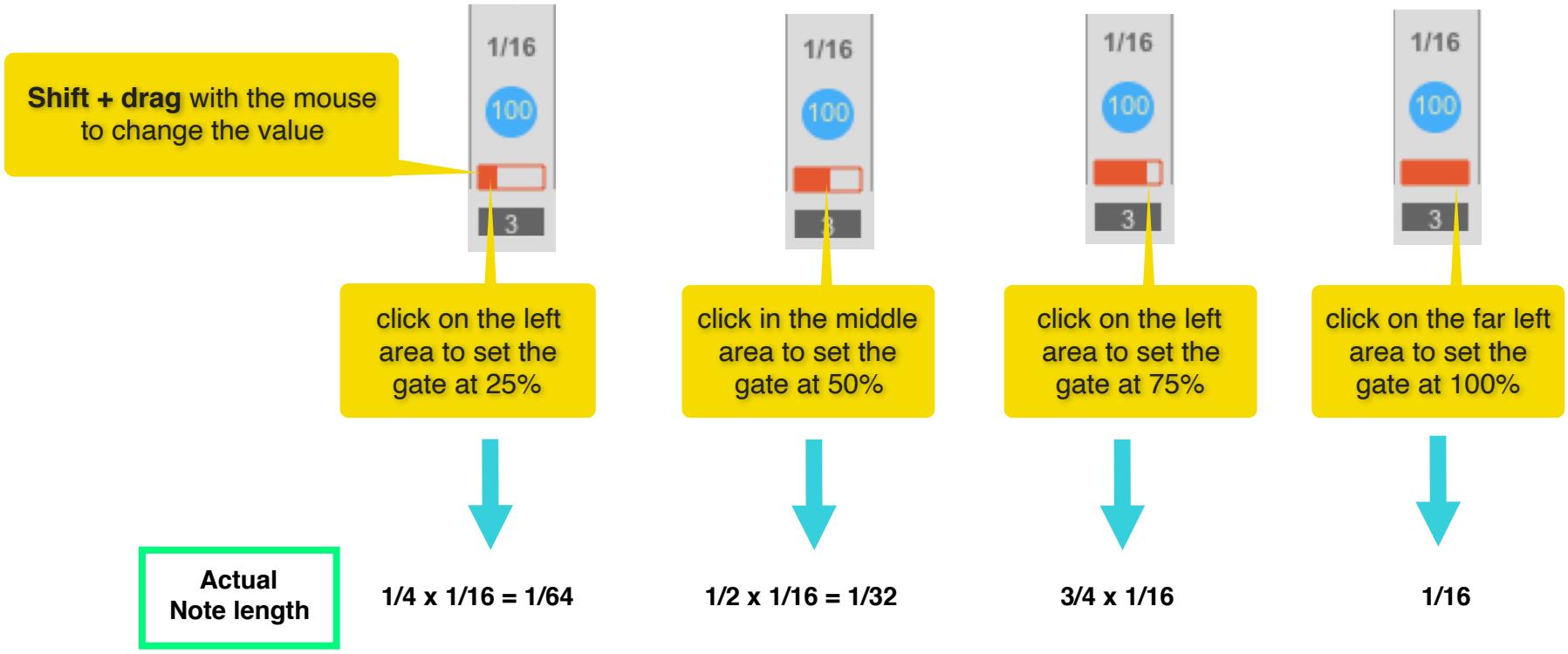
Here you turn steps on and off. When a step is turned off, it is greyed out. Please keep in mind that even if a step is turned off, it still remains part of the sequence and it is played through (i.e. it is not skipped), but the note is NOT played.

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).

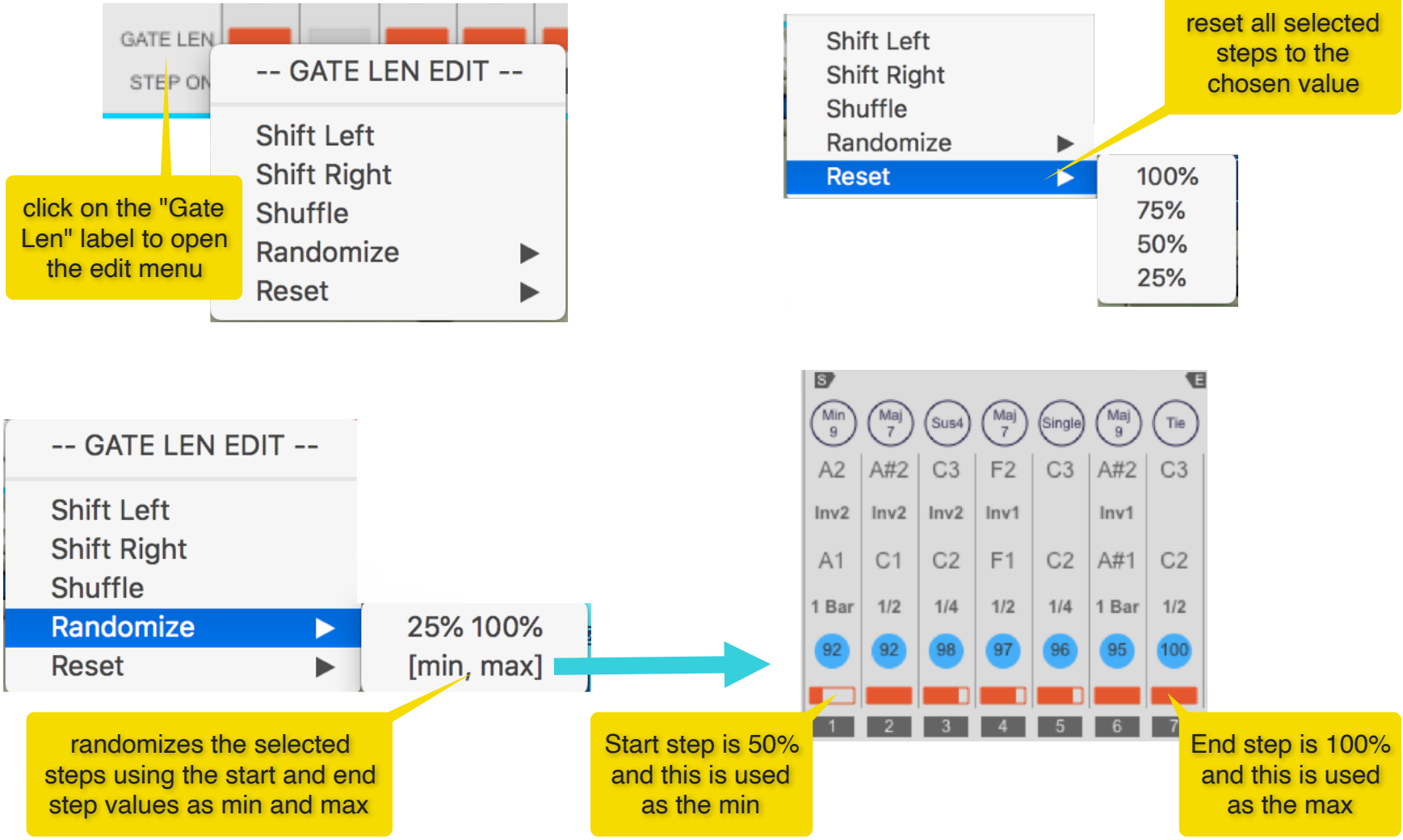


3.2.3 Gate Length

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.

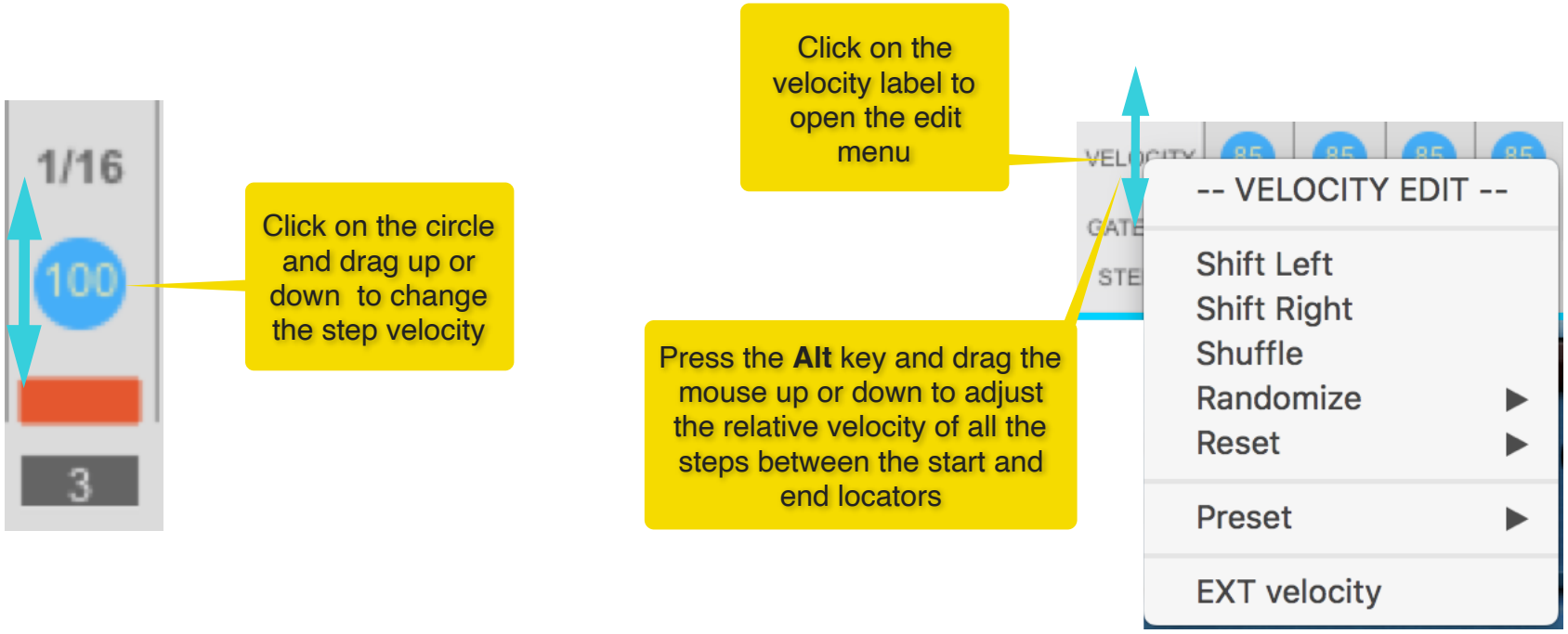


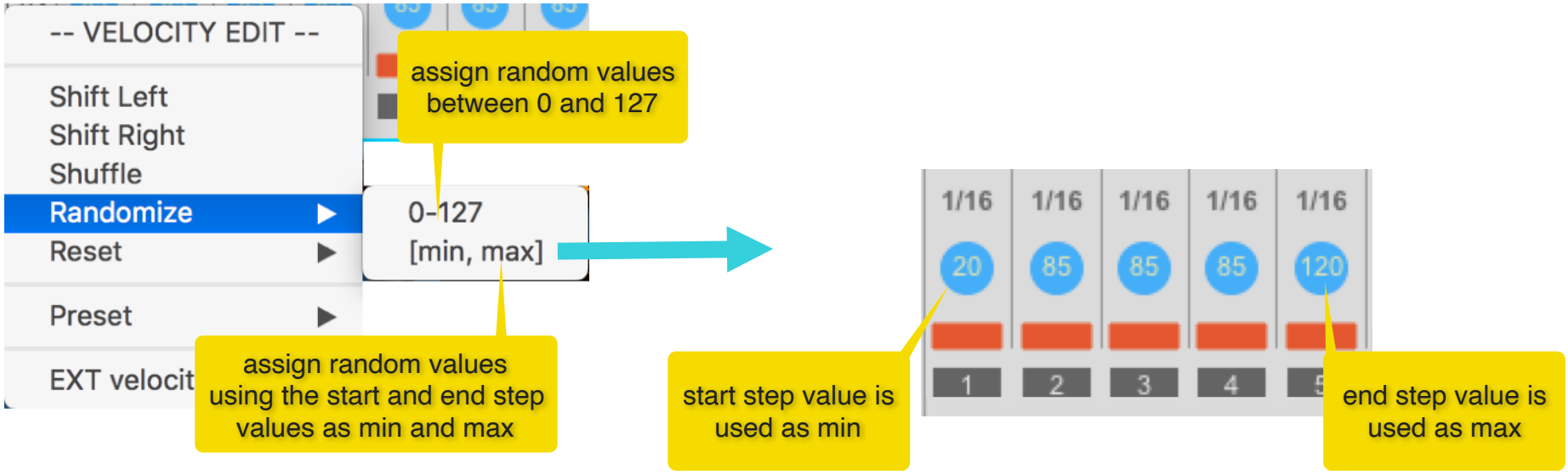
Clicking on the "Gate Len" label opens the Gate Length edit menu which allows quick editing actions for all the steps between the start and end locators. There are options for shifting, shuffling, randomizing and resetting the gates. With the Randomize [min, max] option you can choose the min and max 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.

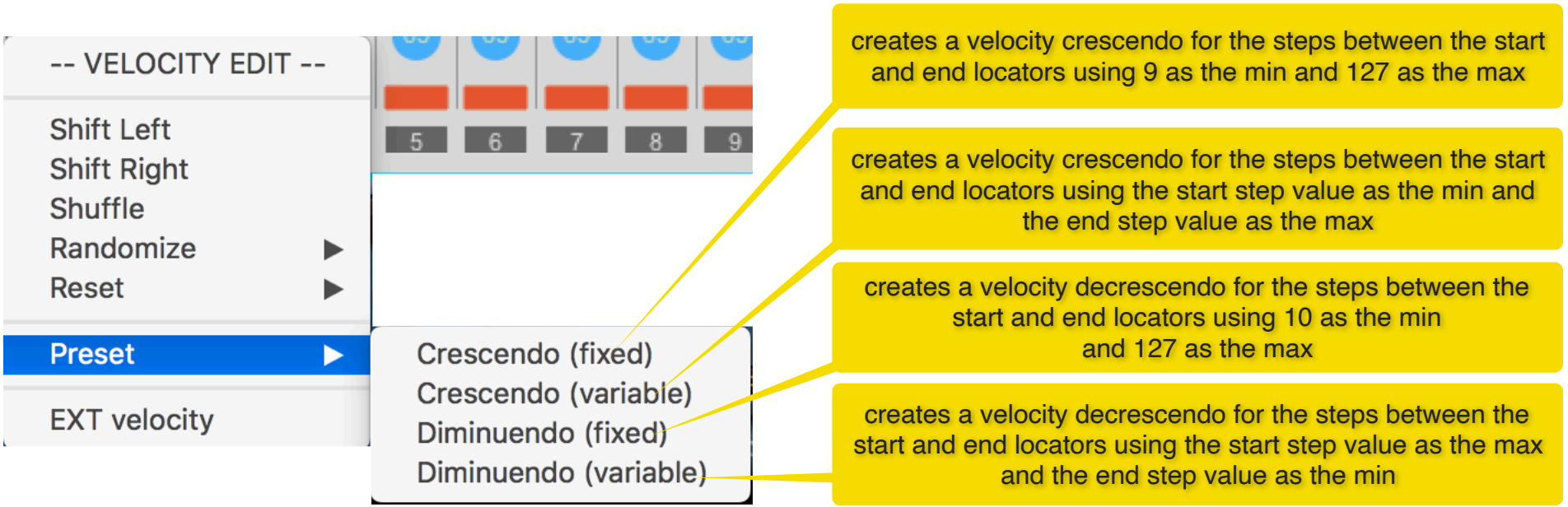


3.2.4 Velocity

Each step has it 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.

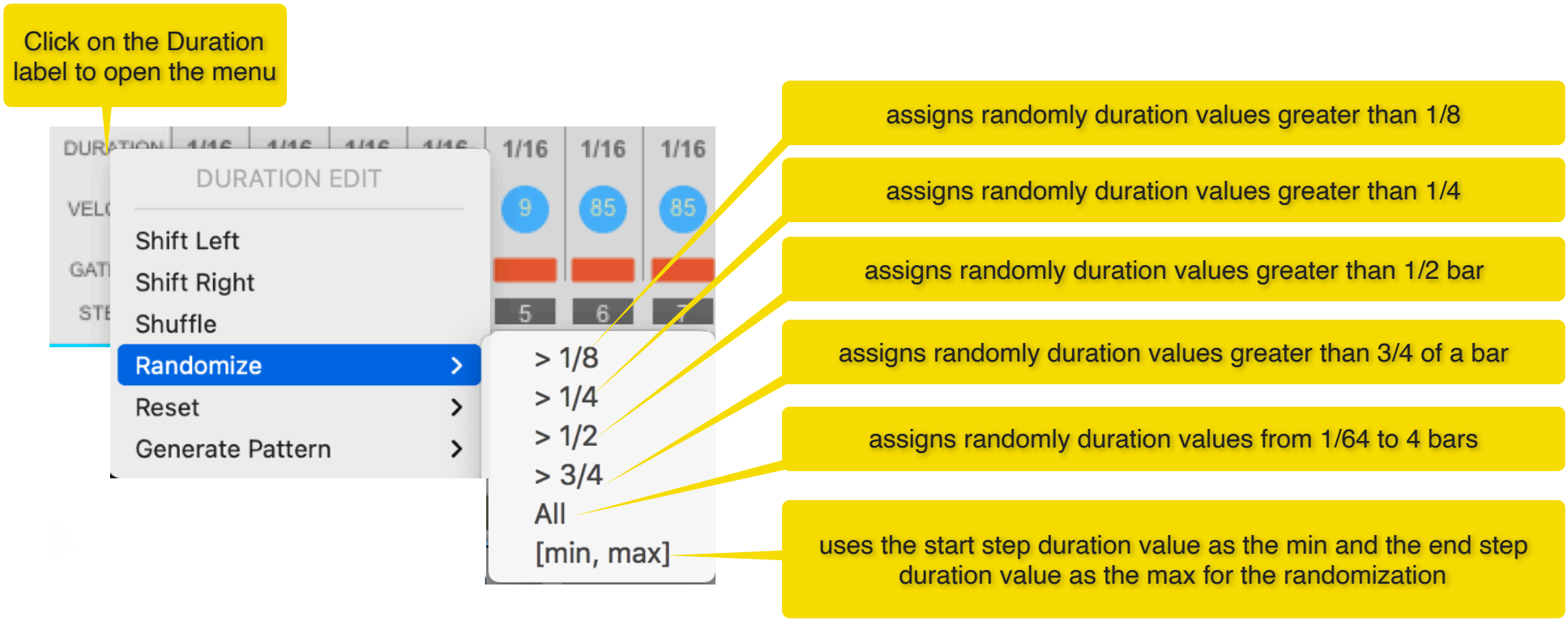



-- VELOCITY EDIT --
Shift Left
Shift Right
Shuffle
Randomize
Reset
Preset
EXT velocit
assign random values between 0 and 127
0-127
[min, max]
assign random values using the start and end step values as min and max
1/16
1/16
1/16
1/16
1/16
20
85
85
85
120
1
2
3
4
start step value is used as min
end step value is used as max

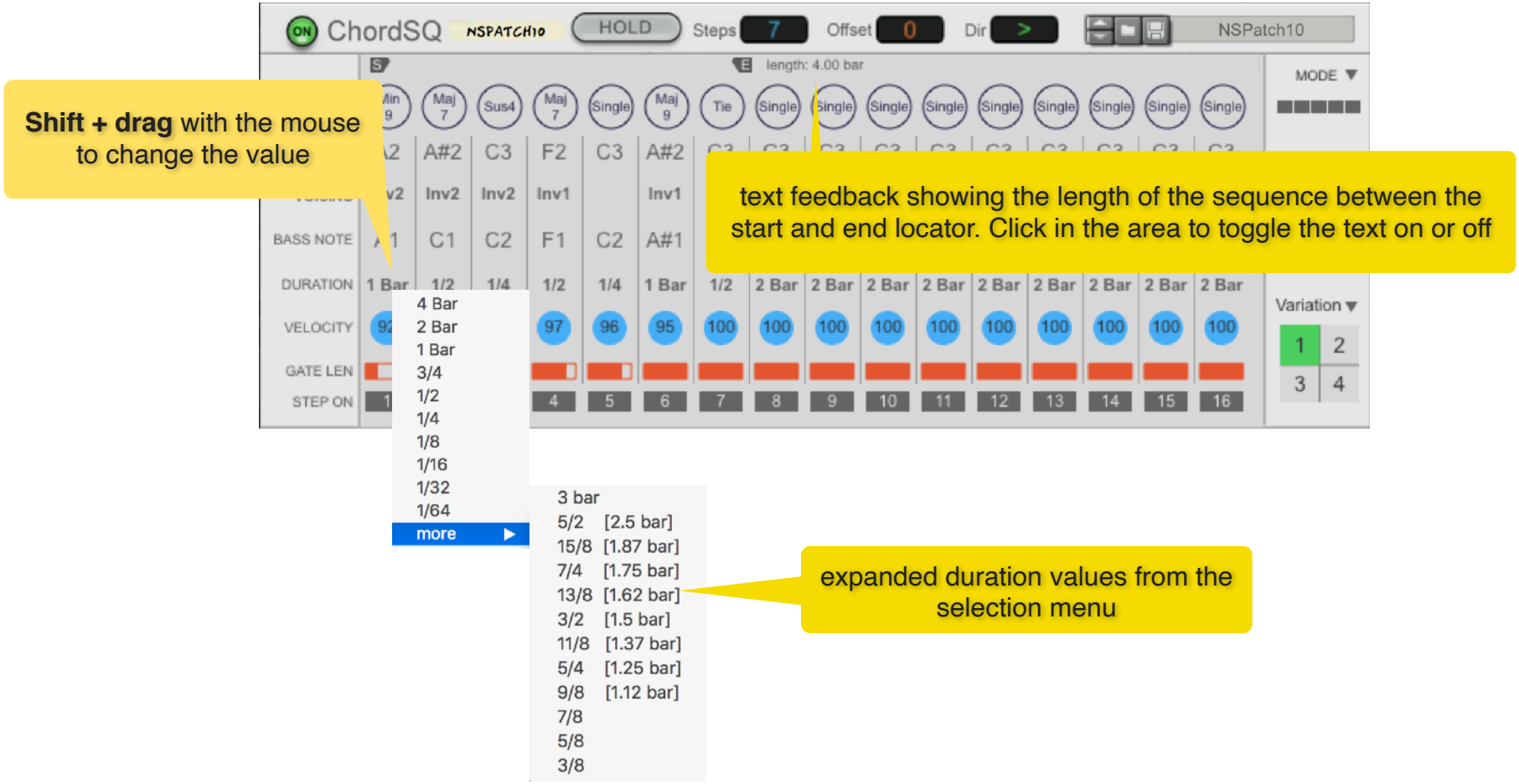

-- VELOCITY EDIT --
Shift Left
Shift Right
Shuffle
Randomize
Reset
Preset
EXT velocity
5
6
7
8
9
Crescendo (fixed)
Crescendo (variable)
Diminuendo (fixed)
Diminuendo (variable)
creates a velocity crescendo for the steps between the start and end locators using 9 as the min and 127 as the max
creates 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

ChordSQ lets you select a duration for each step which can be as short as 1/64 or as long as 4 full bars. 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.



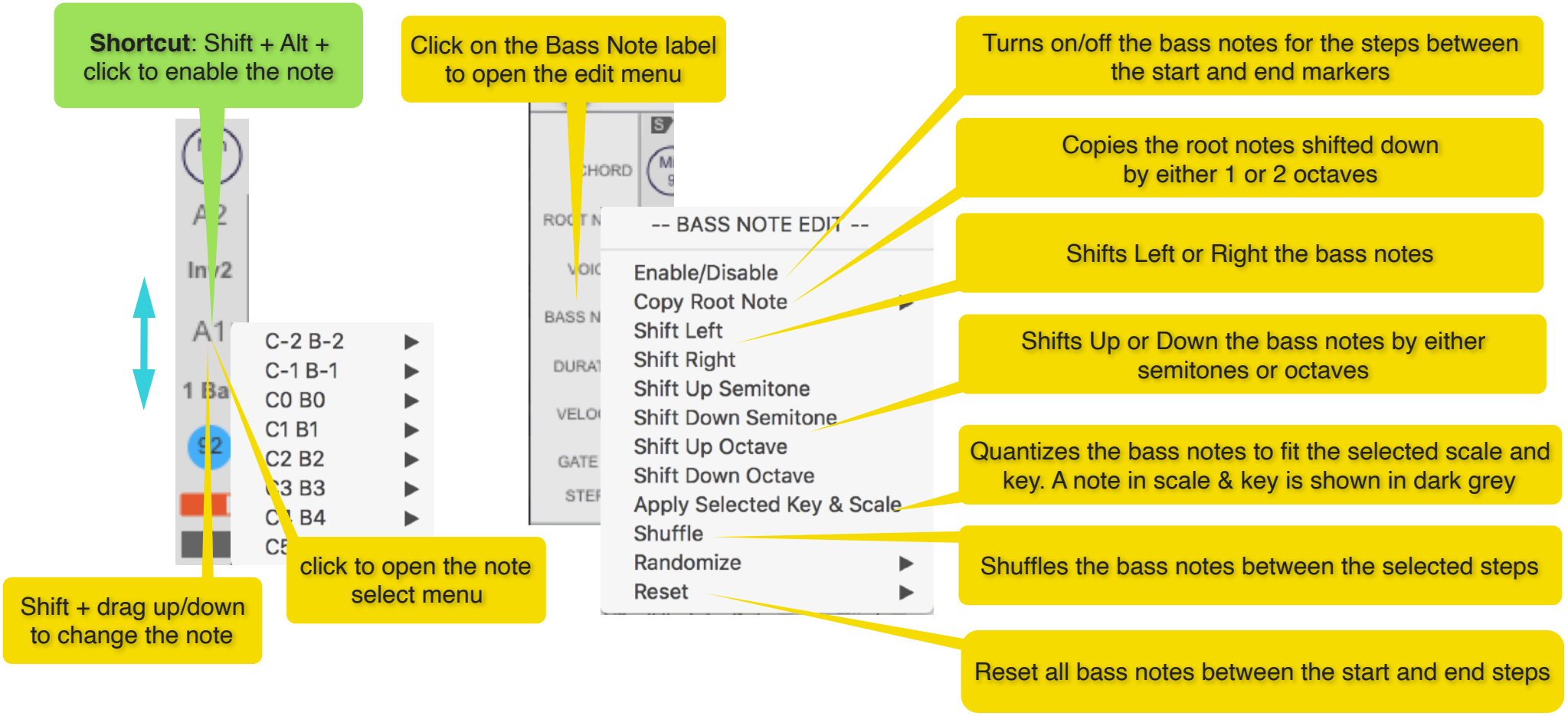
Whenever you change any of the duration parameters or you change the number of steps or offset, a temporary text feedback appears in the center of the running light strip to indicate the current length of the sequence included between the start and end point locators. This feedback can be toggled on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

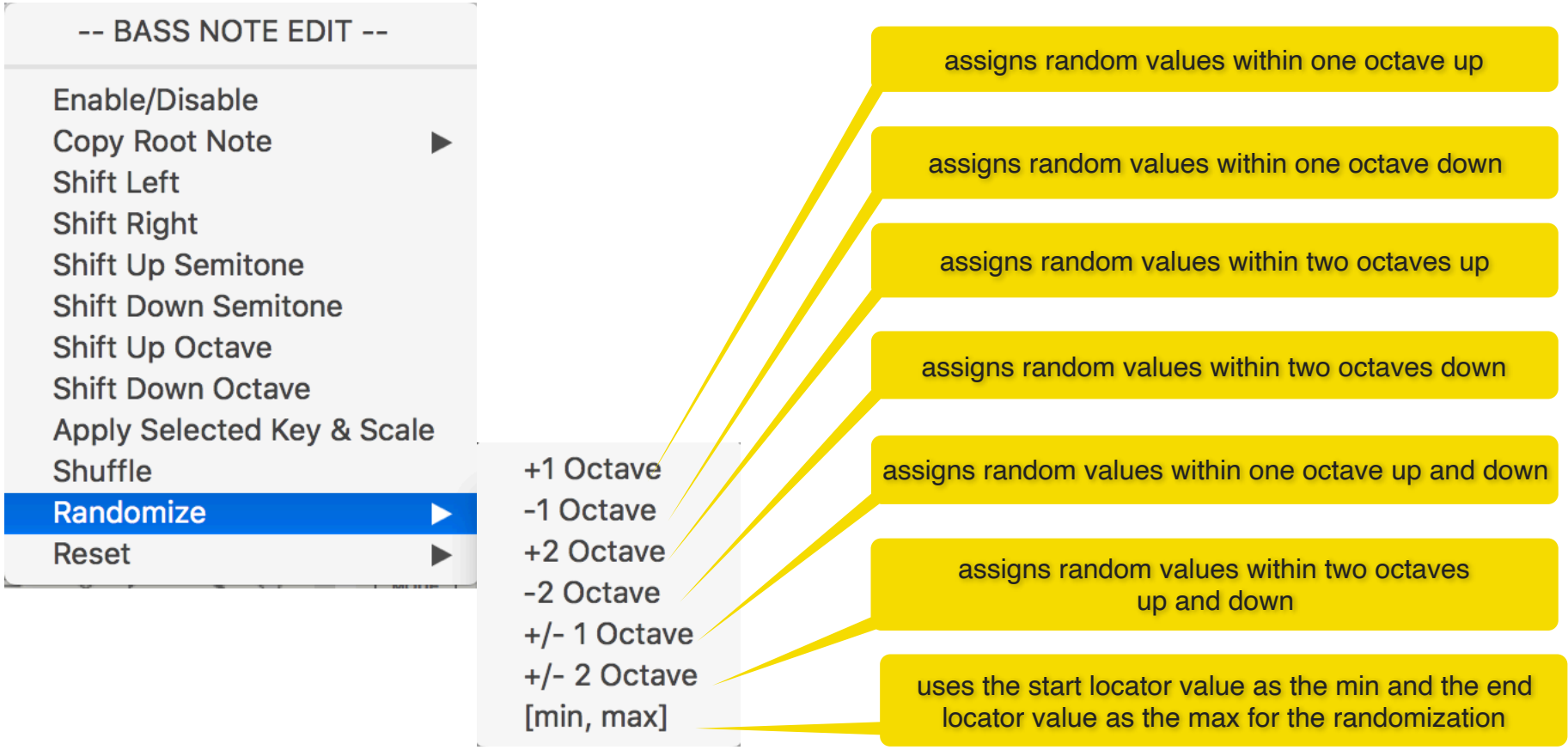


You can automatically generate patterns of a given duration from the edit menu. Click on the "Duration" label and from the "Duration Edit Menu", select "Generate Pattern". From there you can select the desired pattern duration in bars. Please note, patterns always start from step 1 and the end step is adjusted to meet the desired length requirements.

3.2.6 Bass Note

For each step, you can set an additional note to the programmed chord. This is usually a bass or slash note, but feel free to use it creatively as you see fit. The range of available note choices goes from C-2 to B5. By default, the bass note is disabled. To enable it, Shift + Alt + Click on the note name. Clicking on the "Bass Note" label opens the "Bass Note Edit" menu with several edit functions which are explained below.



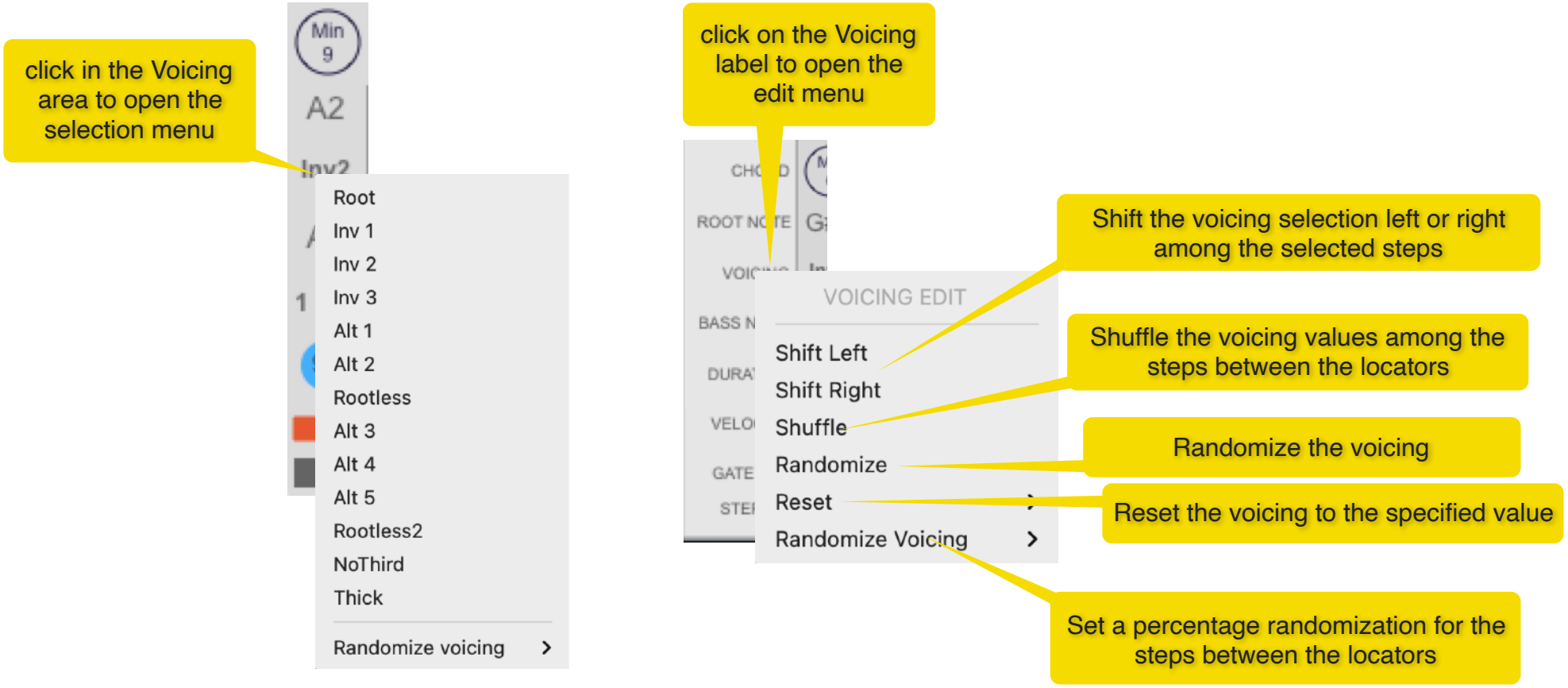

-- BASS NOTE EDIT --
Enable/Disable
Copy Root Note
Shift Left
Shift Right
Shift Up Semitone
Shift Down Semitone
Shift Up Octave
Shift Down Octave
Apply Selected Key & Scale
Shuffle
Randomize
Reset
+1 Octave
-1 Octave
+2 Octave
-2 Octave
+/- 1 Octave
+/- 2 Octave
[min, max]
assigns random values within one octave up
assigns random values within one octave down
assigns random values within two octaves up
assigns random values within two octaves down
assigns random values within one octave up and down
assigns random values within two octaves up and down
uses the start locator value as the min and the end locator value as the max for the randomization

3.2.7 Voicing

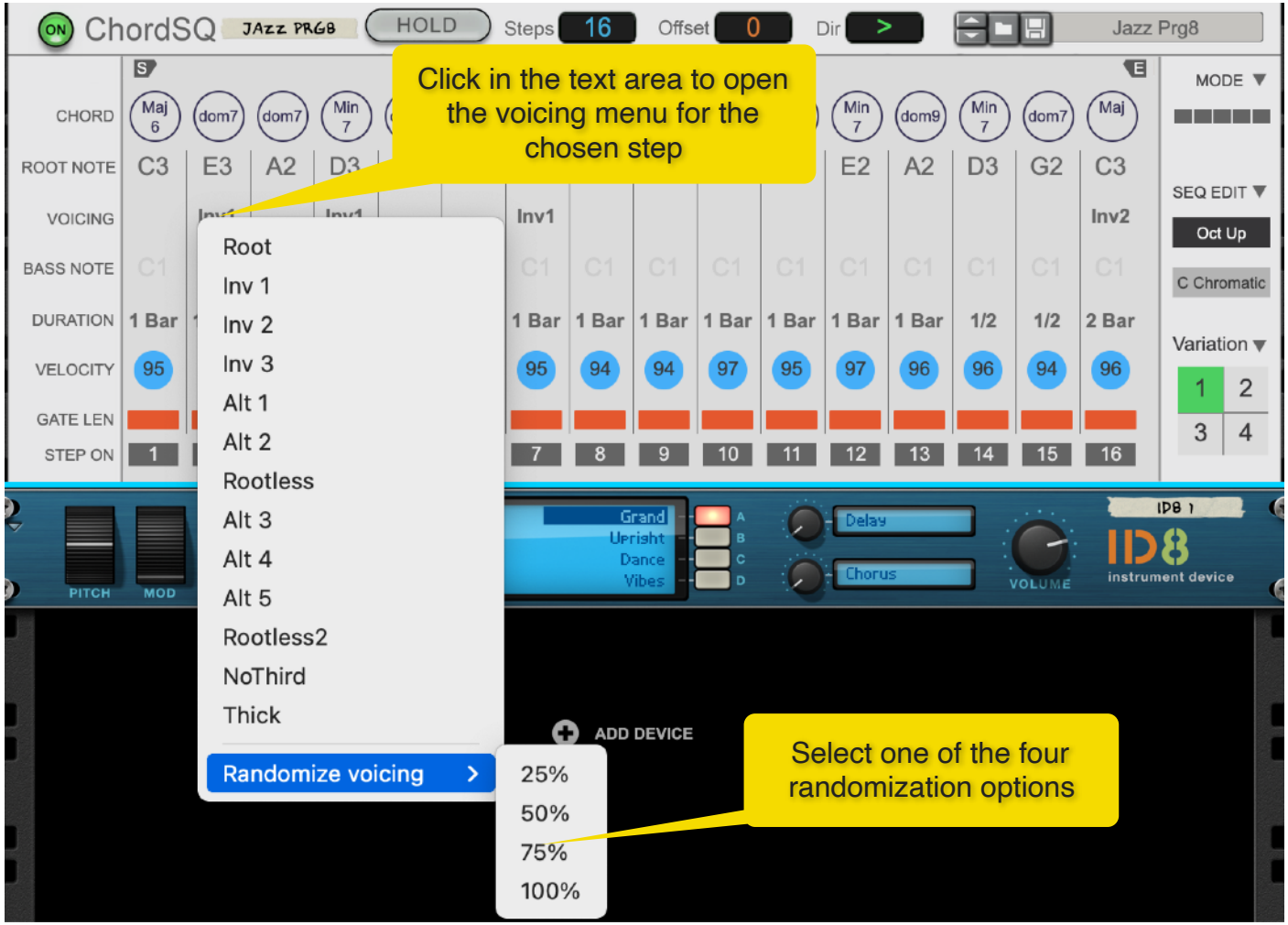
The Voicing determines how the notes in the chords are played. The right voicing makes all the difference, so make sure to spend some time understanding this important parameter! The table below shows a summary of the available voicing options.

Voicing	Description
Root	plays the chord in root position, with the root at the bottom and the other notes stacked on top
Inv 1	plays the top note in the chord shifted down by 1 octave
Inv 2	plays the top 2 notes in the chord shifted down by 1 octave
Inv 3	plays the top 3 notes in the chord shifted down by 1 octave
Alt 1	plays the 2nd note in the chord shifted up by 1 octave
Alt 2	plays the 3rd note in the chord shifted up by 1 octave
Rootless	plays the chord by omitting the root note
Alt 3	plays the 2nd and 3rd notes in the chord shifted up by 1 octave
Alt 4	plays the 2nd note up an octave and the 3rd note down an octave
Alt 5	plays the 2nd note down an octave and the 3rd note up an octave
Rootless2	plays the chord by omitting the root note, and the 2nd and 3rd notes shifted down by an octave
NoThird	omits the third note
Thick	thickens up the chord by duplicating some of the notes above and below the root note

Clicking on the Voicing label opens the "Voicing Edit" menu which allows to affect all the voicing parameters for the steps included between the Start and End locators.

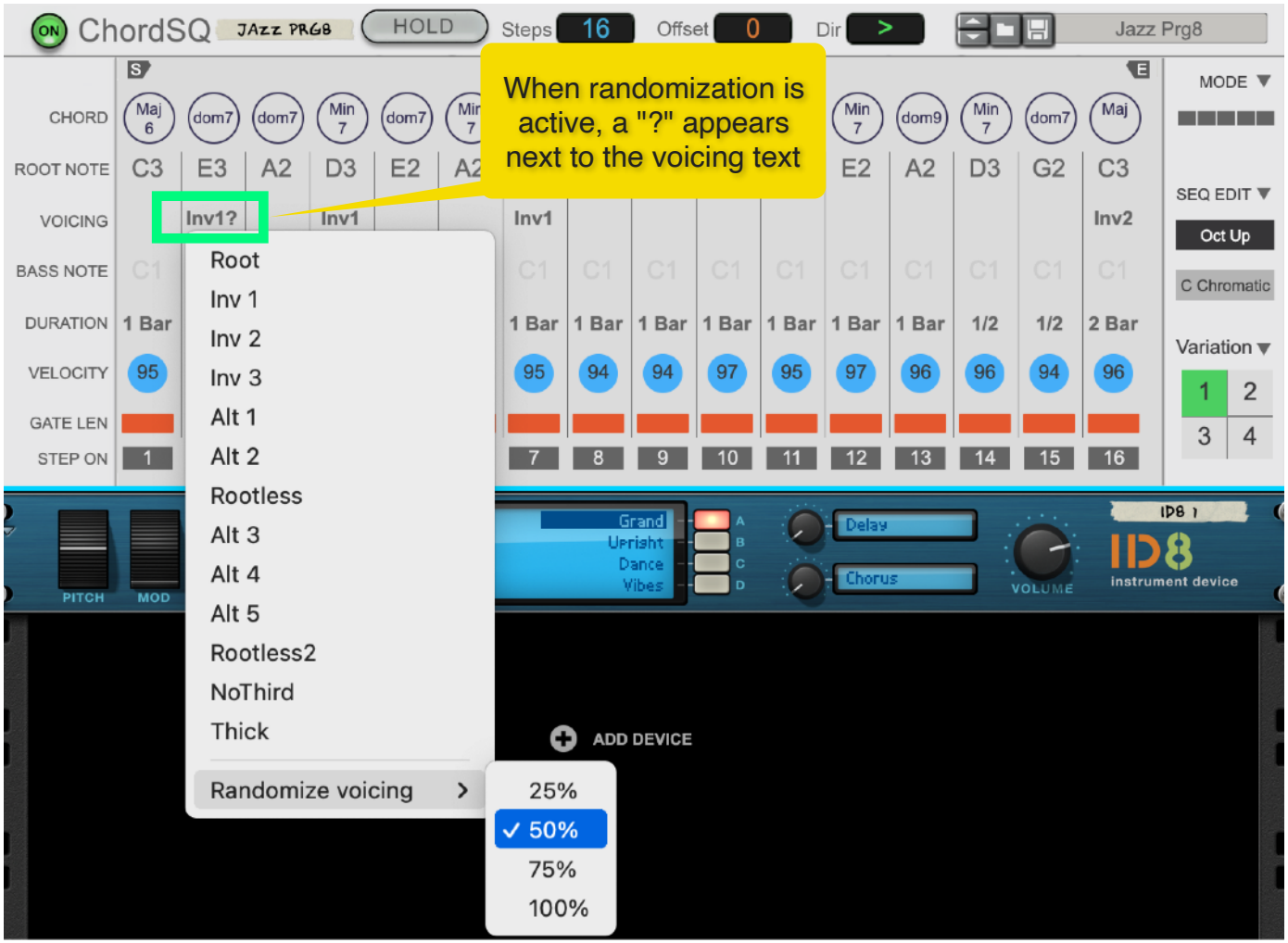


The voicing menu has four entries for randomizing the voicing type for the chosen step in the sequence. The options are 25%, 50%, 75% and 100%. Select an option to activate it. Once activated, select that option again to deactivate it.

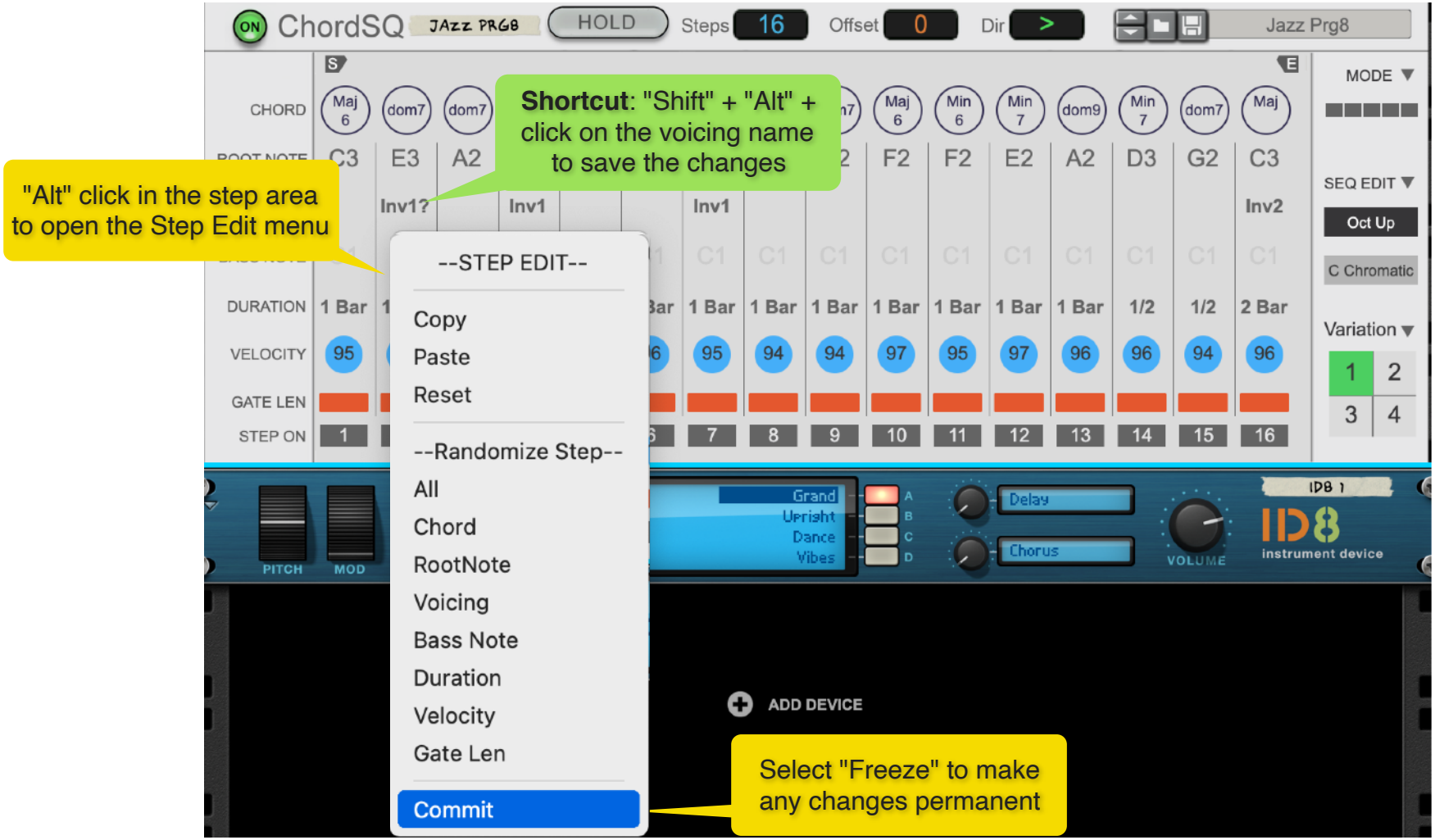


With the first option selected, there is a 25% chance that when the step is triggered, the voicing is selected randomly from all the available types, otherwise the original voicing is used. With 100% selected, the voicing is always chosen randomly every time the step is triggered.

If the randomization is active, there is a question mark "?" next to the original voicing name.

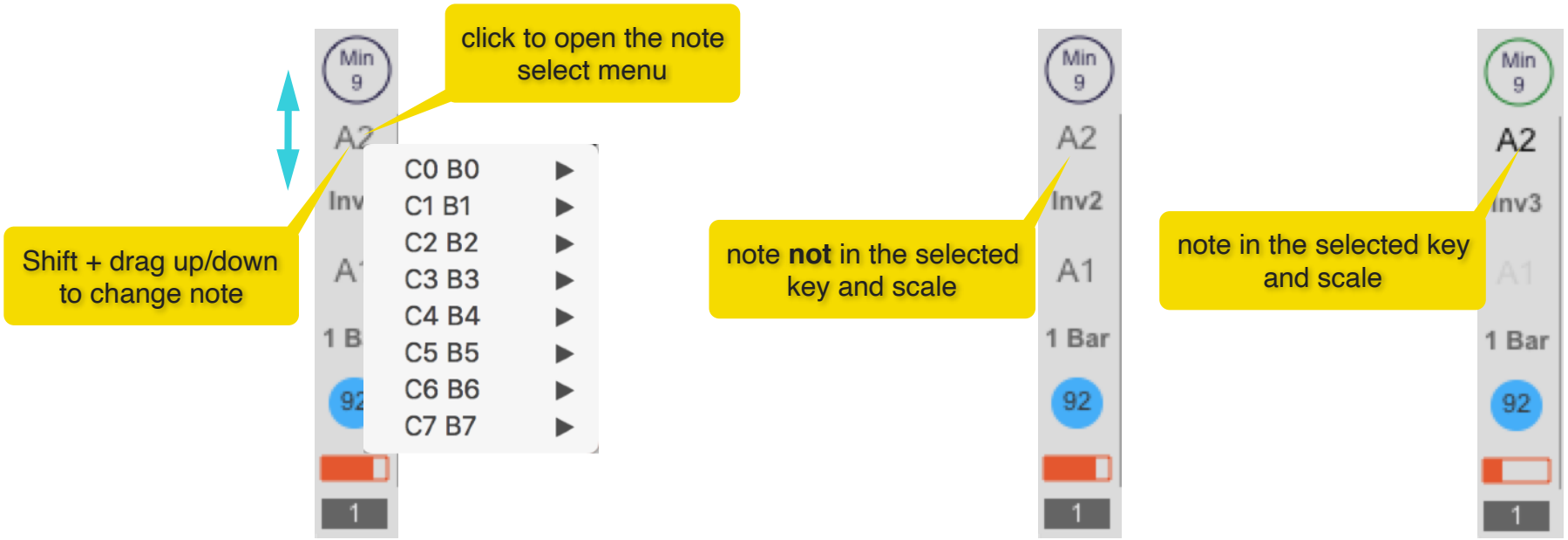


To make any random changes to the voicing permanent, you can use the option in the "Step Edit" menu called "Commit". This option becomes active when Voicing randomization is enabled as shown below. Alternatively, you can use the shortcut of "Shift" + "Alt" + click on the voicing name to save the changes.

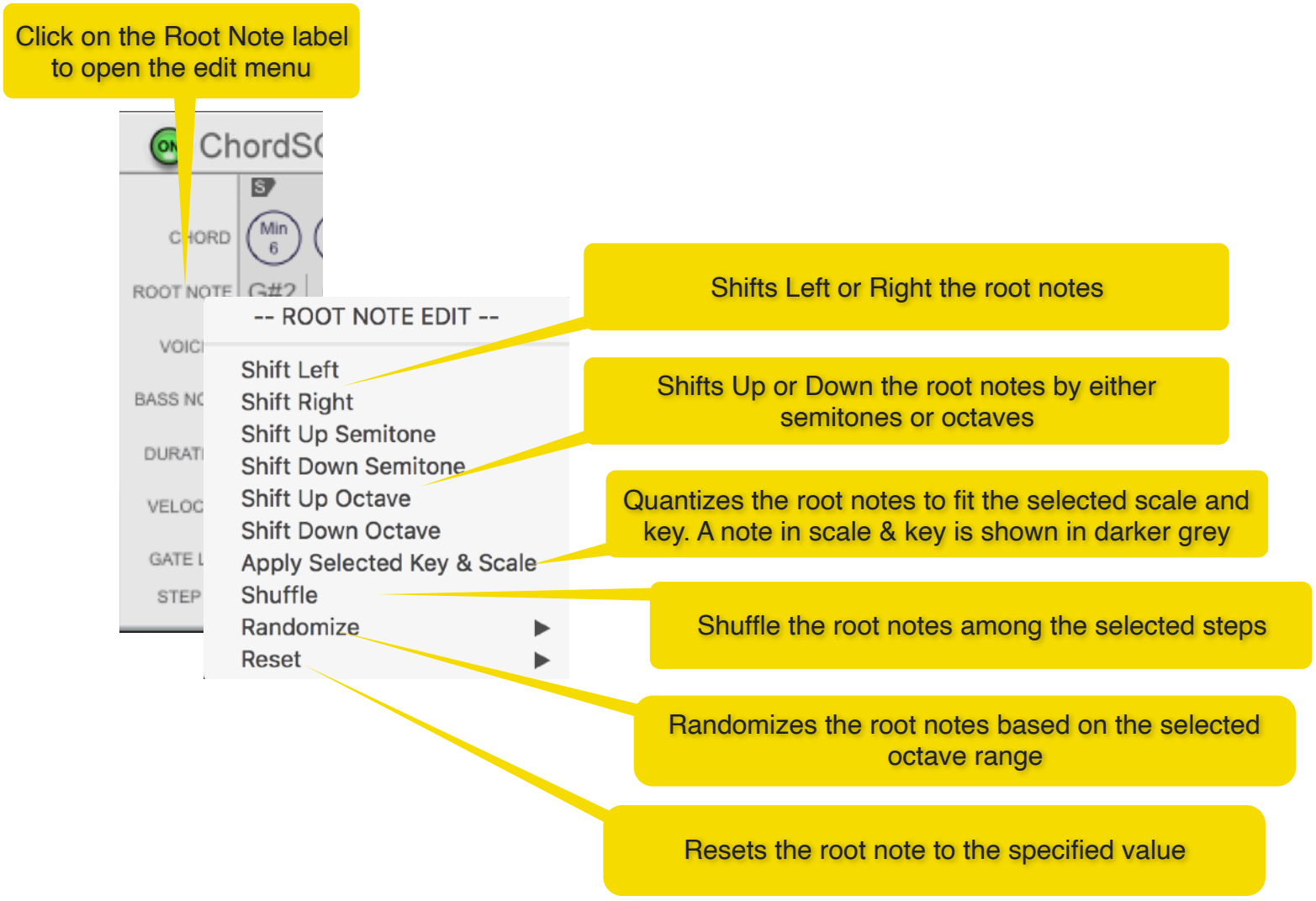


3.2.8 Root Note

The root note value, as the name implies, determines the root note on which the chord is built. The range of available note choices goes from C0 to B7. To select a root note, simply click on the root label for the given step and select a value from the selection menu. Alternatively, you can press **Shift** and drag the mouse up or down to change the note. If a scale and key are selected, the note name is displayed in dark grey when it fits the chosen scale and key.

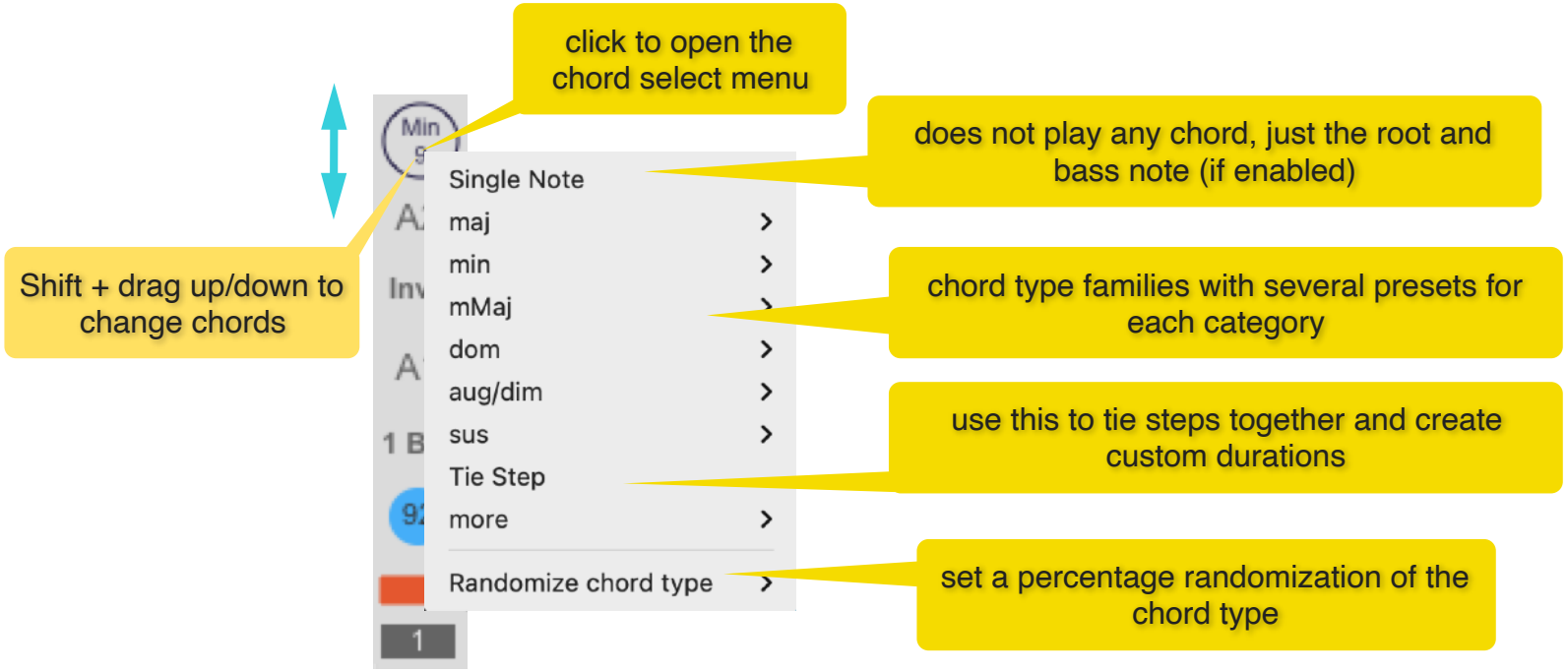


Clicking on the Root Note labels opens the "Root Note Edit" menu with several options for editing the root notes between the Start and End locators.

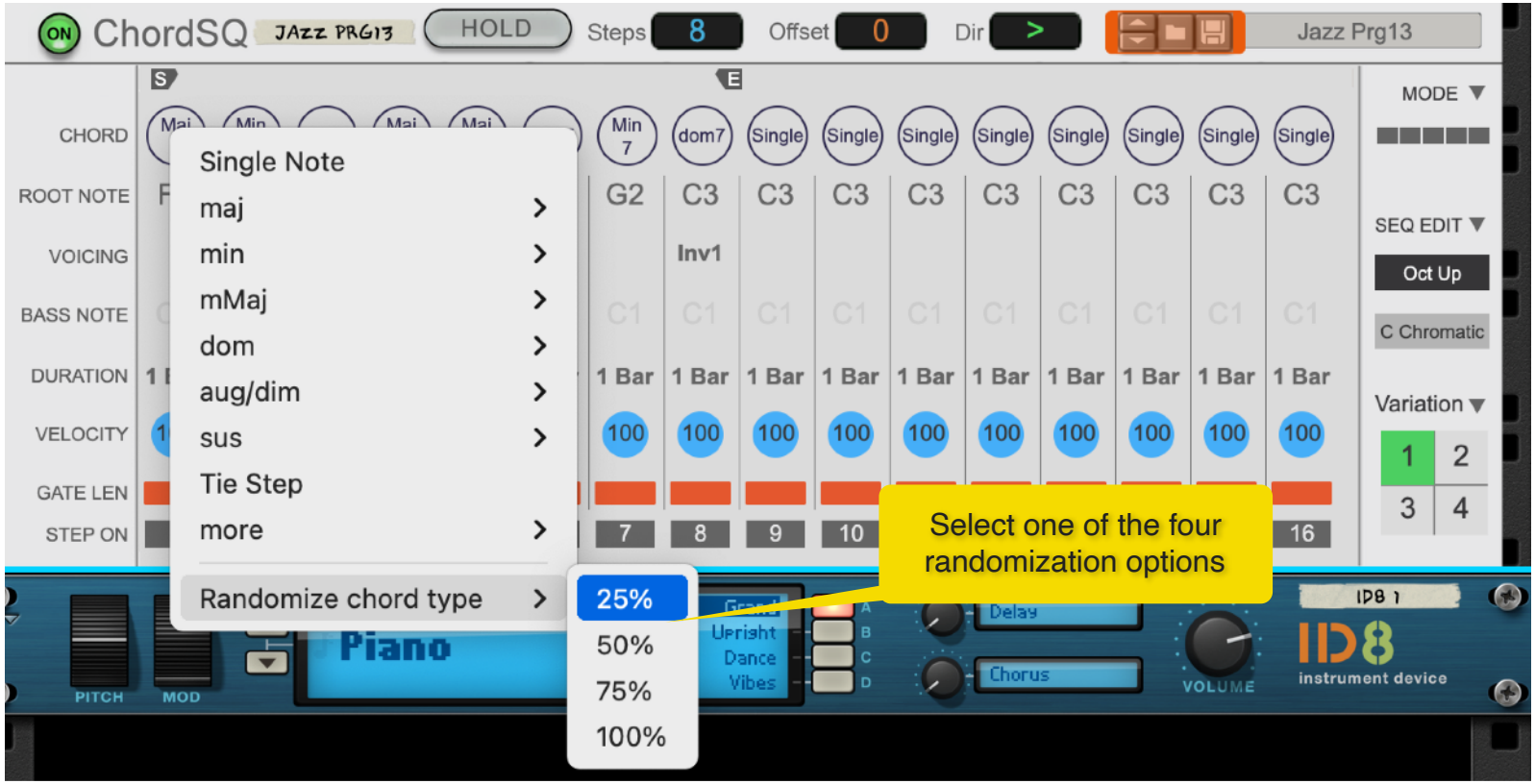


3.2.9 Chord Type

Once you set a root note, the chord type parameter determines what chord is built on the root. To select a chord type is very easy: just click in the circle corresponding to the chord type and select a chord from the menu. Chord types are grouped according to the chord quality, like major, minor, etc. The topmost and bottom entries in the selection menu work differently. The topmost is called "Single Note" and as the name implies, it won't create any chord at all buy but just play the root and the base note (if enabled). On the other hand, the bottom entry called "Tie Step" allows you to tie steps together to create custom note durations.



The are four entries for randomizing the chord type for the chosen step in the sequence. The options are 25%, 50%, 75% and 100%. Select an option to activate it. Once activated, select that option again to deactivate it.



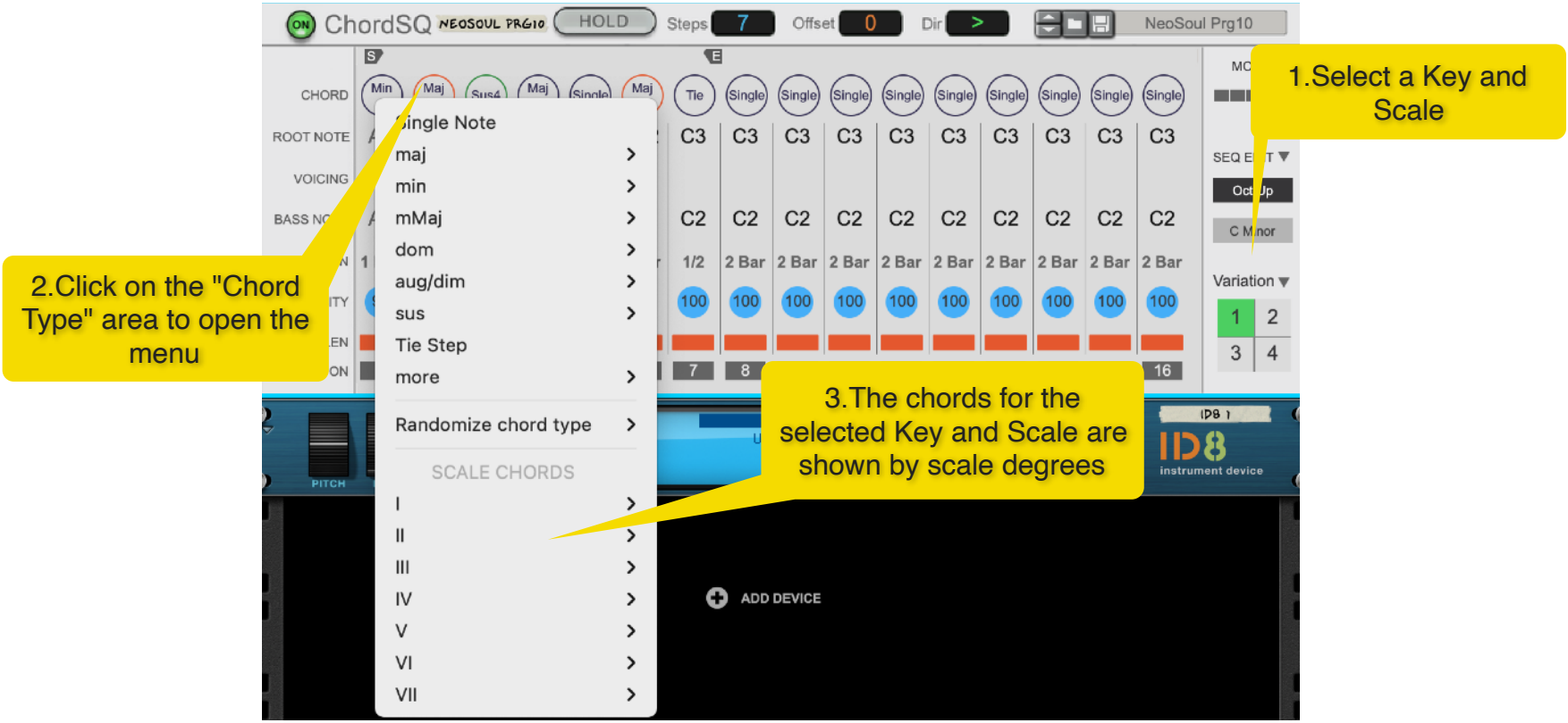
With the first option selected, there is a 25% chance that when the step is triggered, the chord type is selected randomly from all the available chord types, otherwise the original chord type is played. With 100% selected, the chord type is always chosen randomly every time the step is triggered.

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

Chord type randomization is great for changing an existing progression. What happens if you hear a change you like and want to make it permanent? This can be done by using a new option in the "Step Edit" menu called "Commit". This option becomes active when either Chord Type randomization is enabled.

In addition to the Step Edit menu, a handy shortcut to save any changes due to randomization is to "Shift" + "Alt" + click in the chord type selection area of the chosen step.

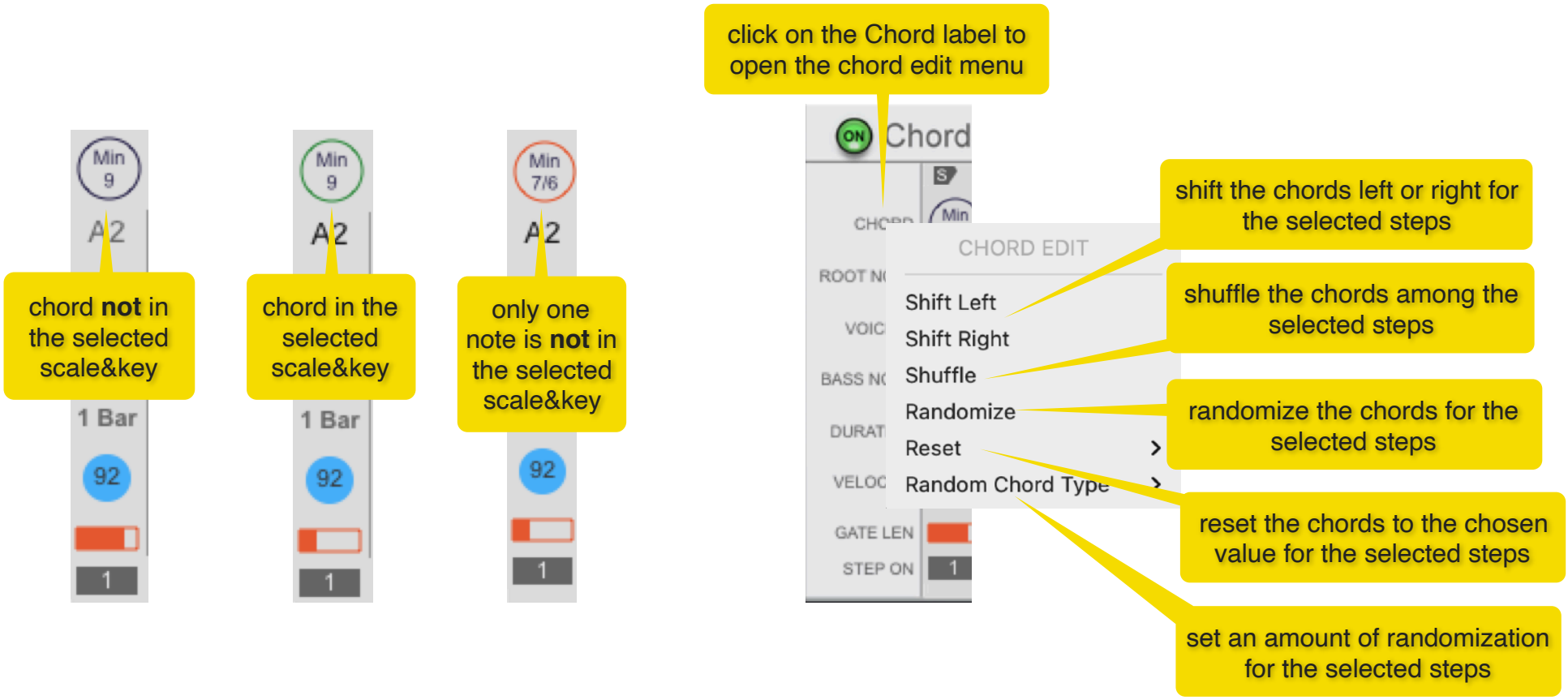
When you select a Scale and a Key, the chords for that scale and key become readily available from the "Chord Type" menu as shown below. The chords are arranged by scale degrees and they are divided in two categories: "In Key" and "Chromatic". The first category collects the chord types which are strictly "In Key" with all the chord notes in the chosen scale. The second category collects the chord types which have all notes except for one in the chosen scale.




In Key chords have all the notes in the choses Key and Scale
Chromatic chords have only one note NOT in the chosen Key and Scale
IN KEY
C min
C min 7
C min +9
C min 9
C min +11
C min 11
C Sus2
C Sus4
C 7sus2
C 7sus4
C 9sus4
C sus11
C min7 +11
CHROMATIC
C maj
C maj +9
C maj +11
C min 6
C min 6/9
C min 7/6
C min 9 6/9
C min 13
C mM7
C mM9
C mM11
C dom7
C dom9
C Aug
C Aug7
C Dim
C hdim7
C b9sus
C dom7 #9
Single Note
maj
min
mMaj
dom
aug/dim
sus
Tie Step
more
Randomize chord type
SCALE CHORDS
I
II
III
IV
V
VI
VII
ChordSQ
NeoSoul Prg10
CHORD
ROOT NOTE
VOICING
BASS NOTE
DURATION
VELOCITY
GATE LEN
STEP ON
MODE
SEQ EDIT
Oct Up
C Minor
Variation
120.000
4/4

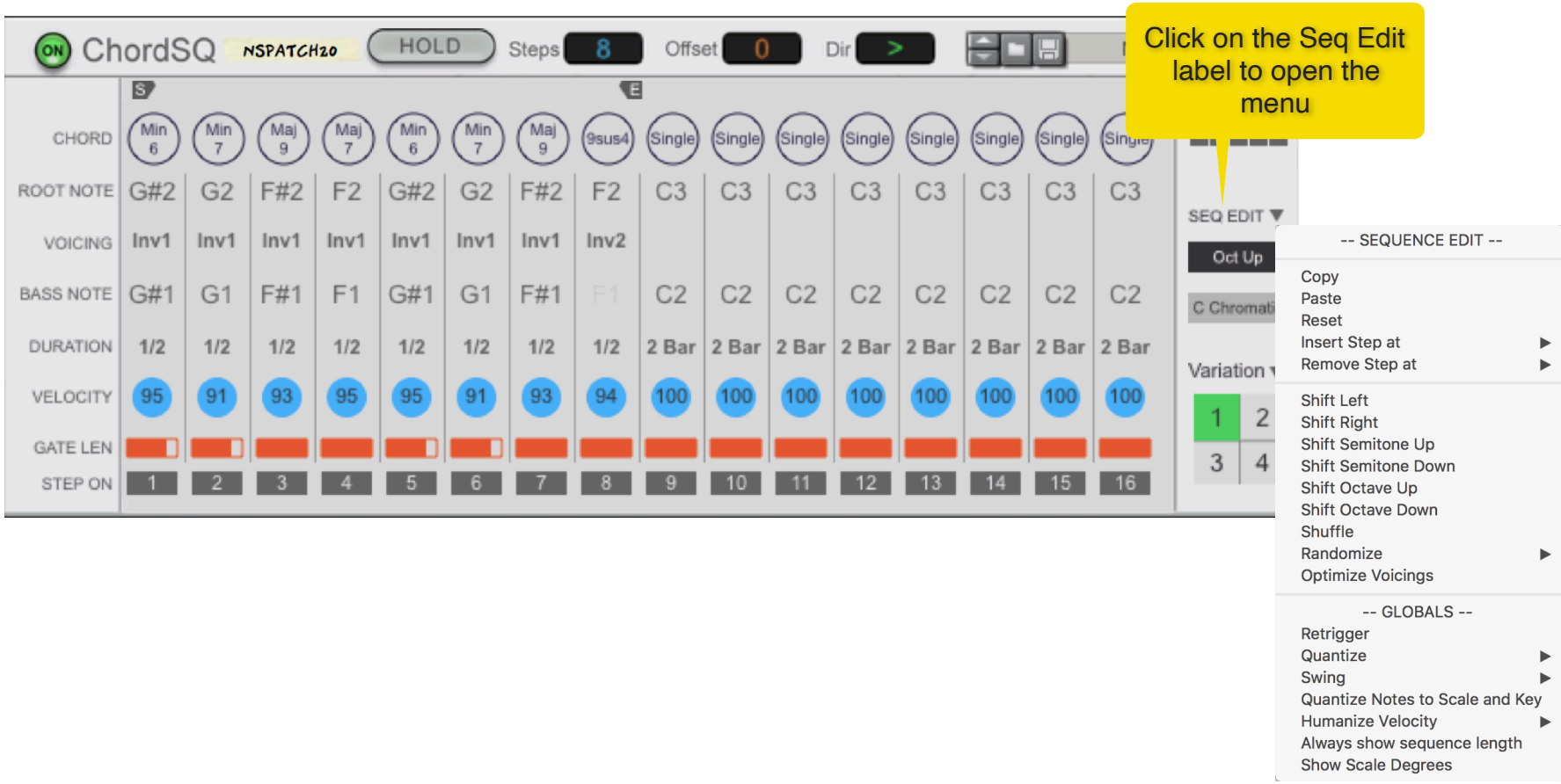
If a scale and key are selected, the chord type selection circle changes color based on whether the chord is in the selected scale and key or not.

Clicking on the "Chord Type" label opens up a menu with various options to affect the chord types for all the steps within the Start and End locators.



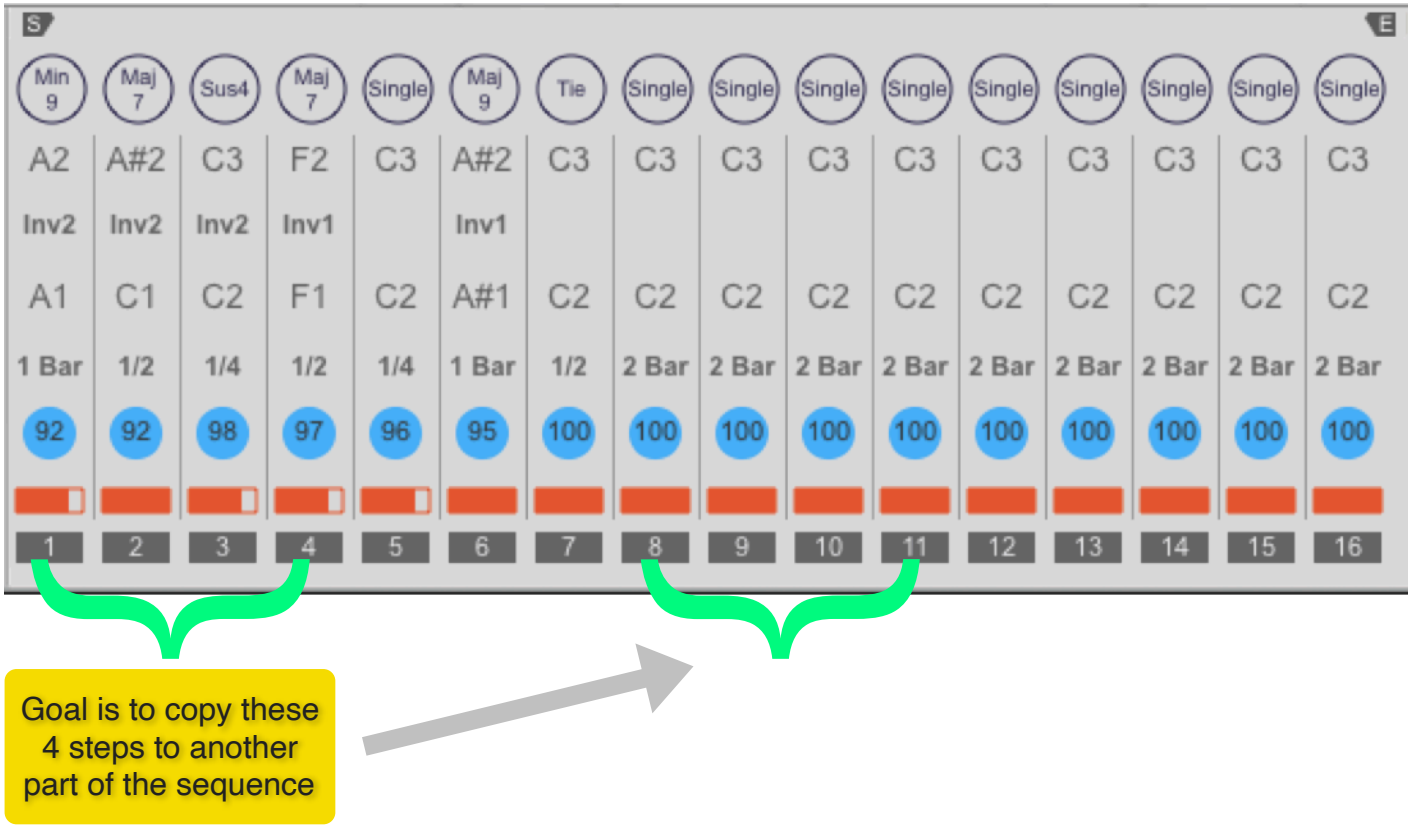
3.3 Sequence Edit

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.

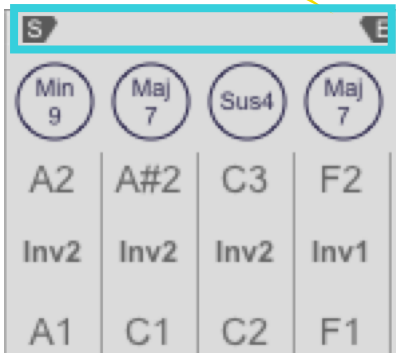


3.3.1 Copy and Paste

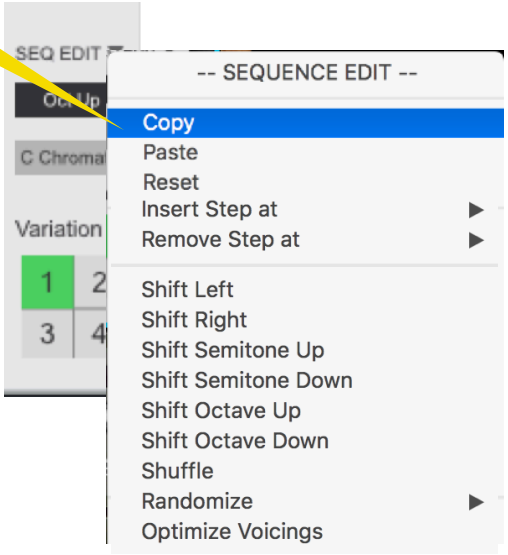
Let's say you are programming a sequence and you stumble on a combination of steps which sound quite good and you would like to repeat those same steps somewhere later in the sequence. One obvious option if to copy and paste each step one by one. But there is a faster way and it involves using the Start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



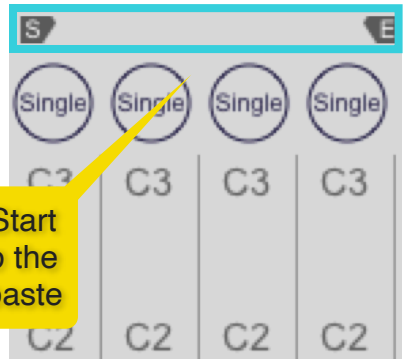
Step1: move the Start and End locators to the steps you want to copy



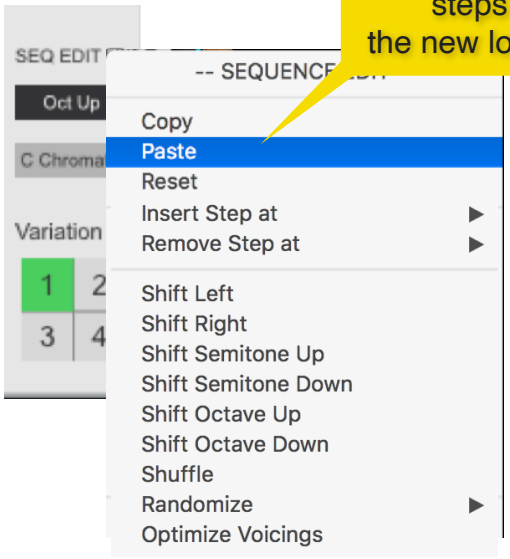
Step 2: click on Copy from the Seq Edit Menu



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

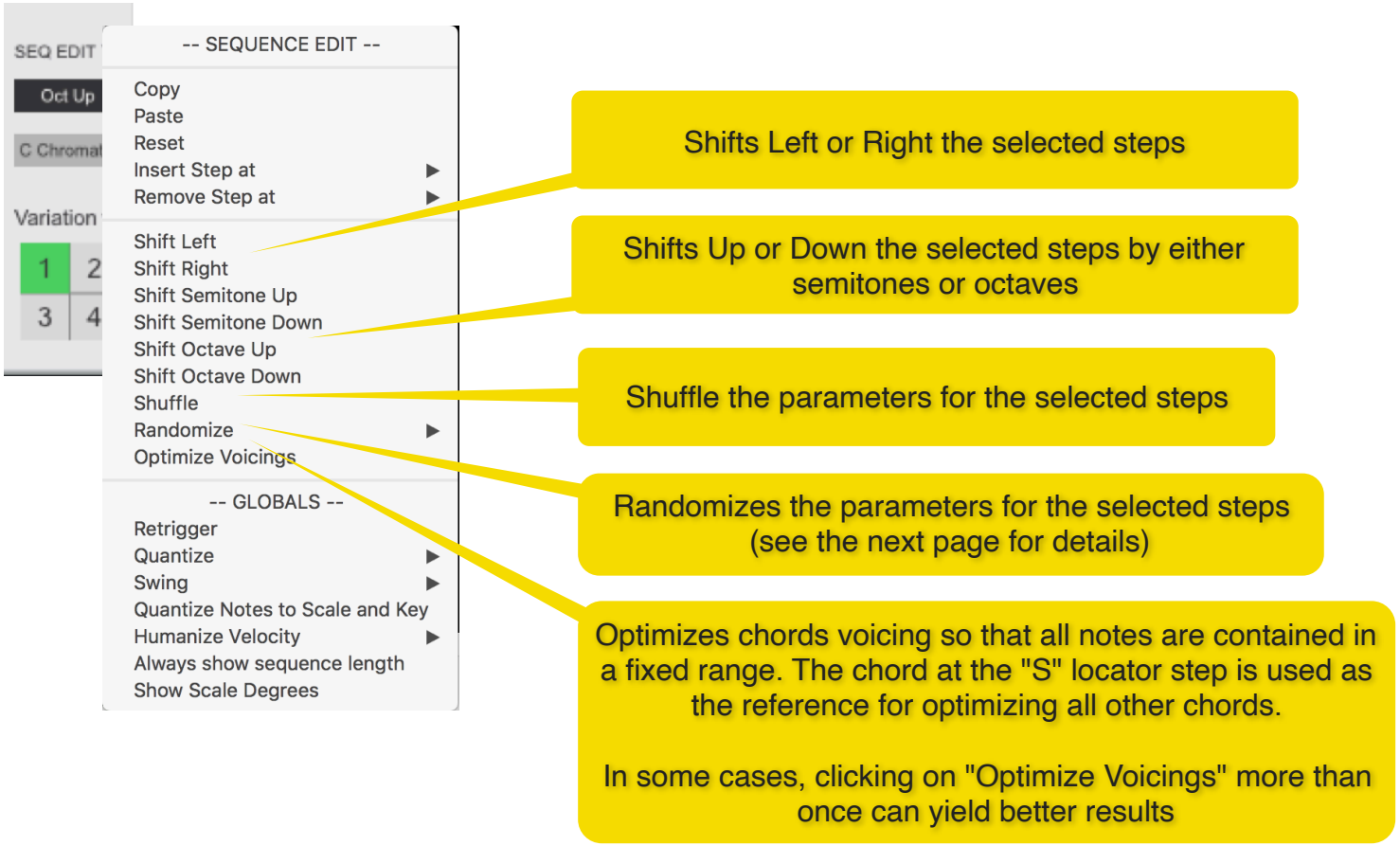


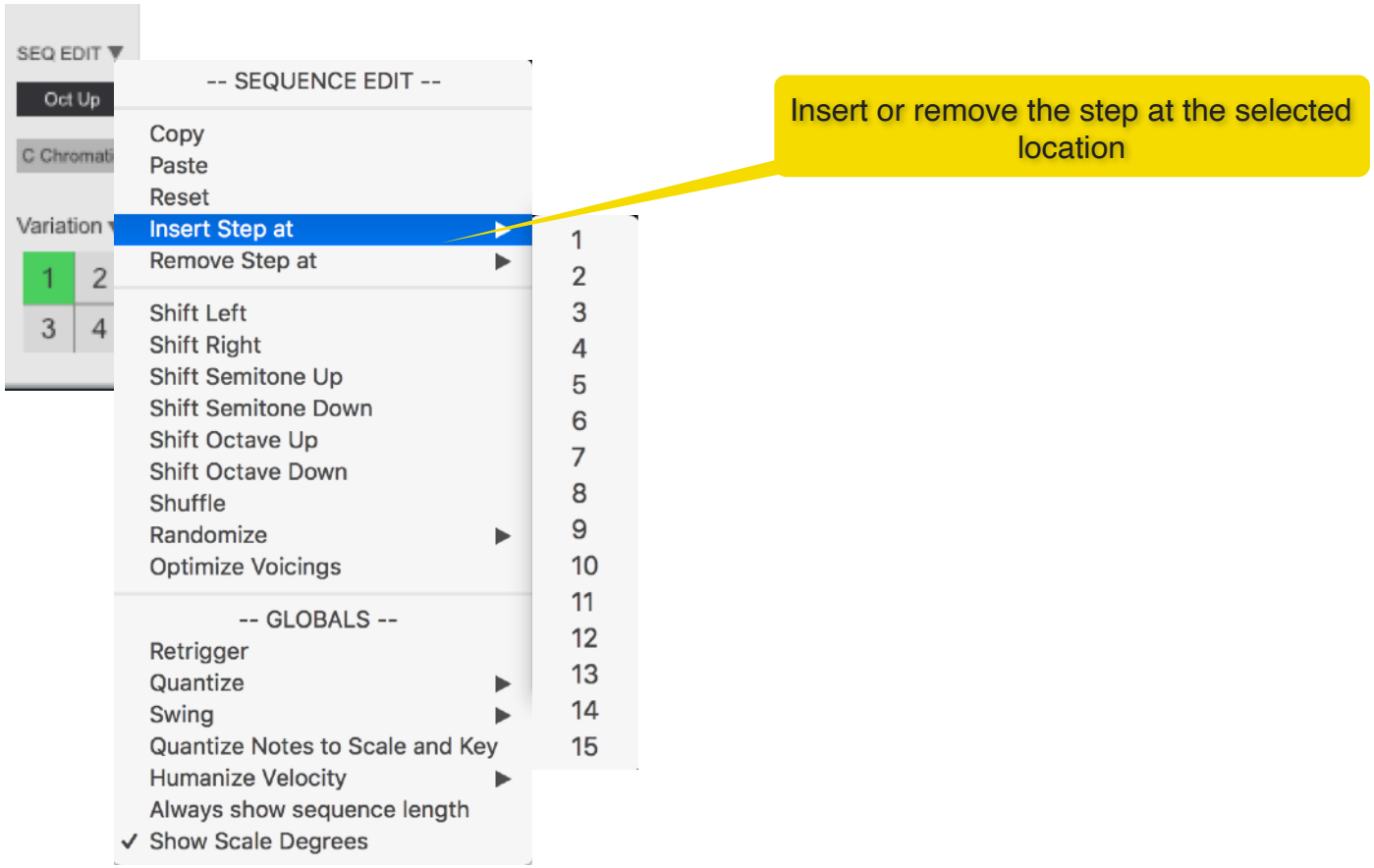
Step 4: paste the steps to the new location!



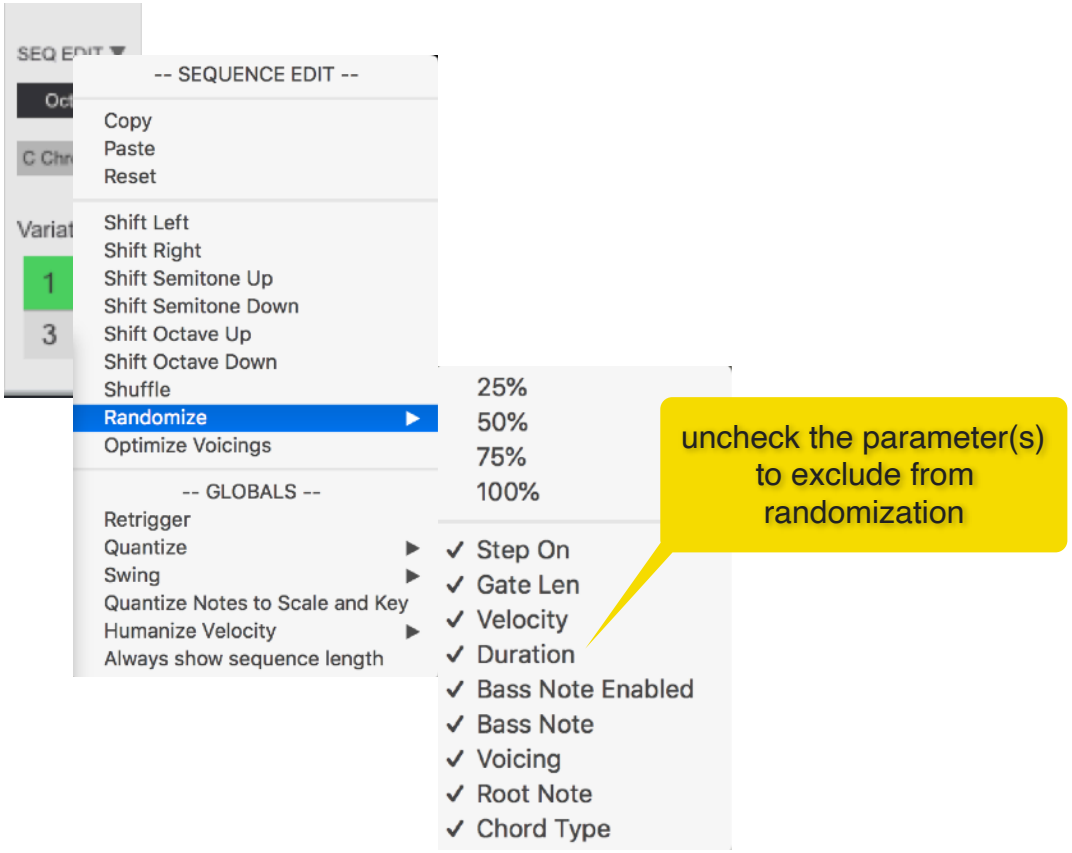
3.3.2 More Sequence Editing Functions

From the "Seq Edit" menu, you can access even more functions to quickly alter the sequence included between the Start and End locators. These functions are described below.



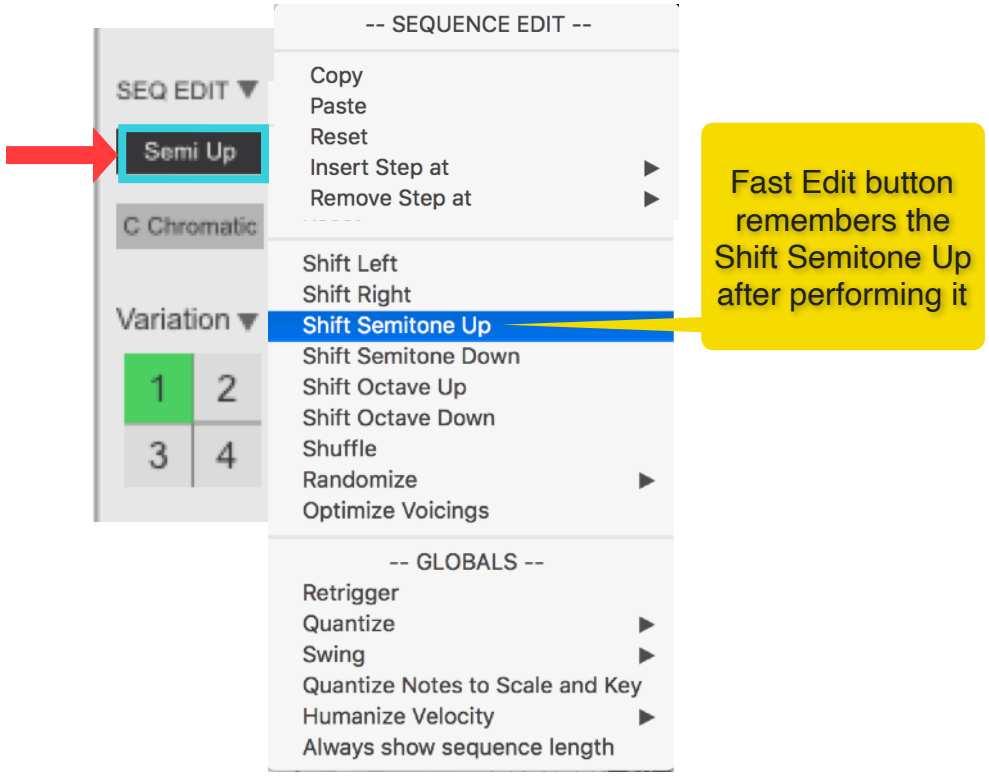

SEQ EDIT
Oct Up
C Chromati
Variation
1
2
3
4
-- SEQUENCE EDIT --
Copy
Paste
Reset
Insert Step at
Remove Step at
Shift Left
Shift Right
Shift Semitone Up
Shift Semitone Down
Shift Octave Up
Shift Octave Down
Shuffle
Randomize
Optimize Voicings
-- GLOBALS --
Retrigger
Quantize
Swing
Quantize Notes to Scale and Key
Humanize Velocity
Always show sequence length
✓ Show Scale Degrees
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Insert or remove the step at the selected location

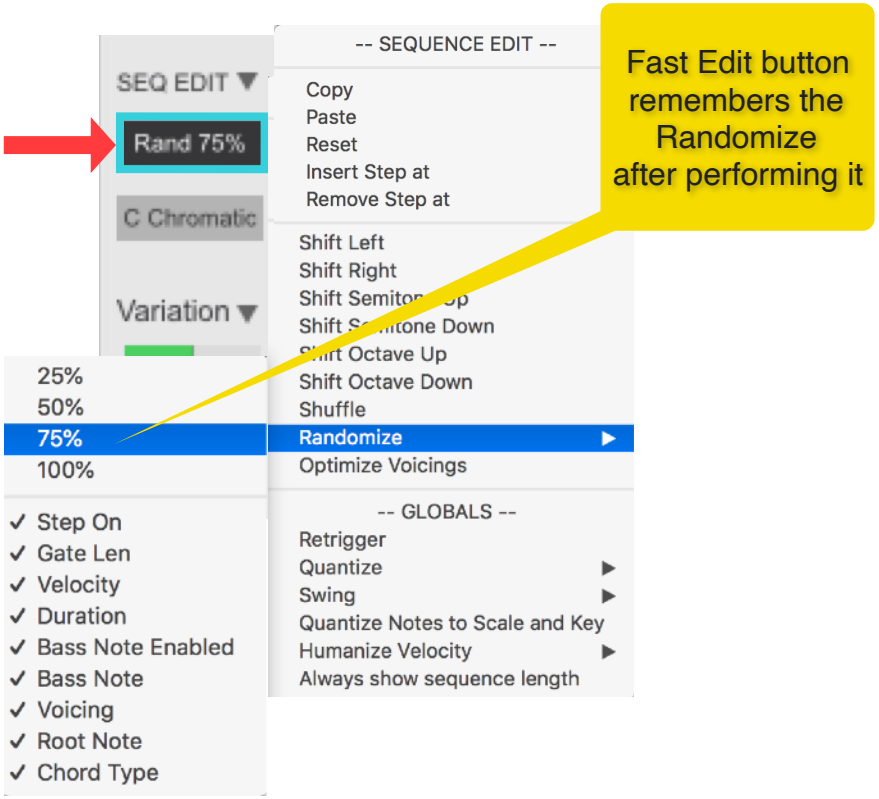
Randomization can be a great way to come up with interesting sequences with little effort. You have the option to control the "strength" of the randomization by choosing how many parameters you want to alter. There are 4 options, 25%, 50%, 75% and 100%. At 25% only few parameters will be altered, at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

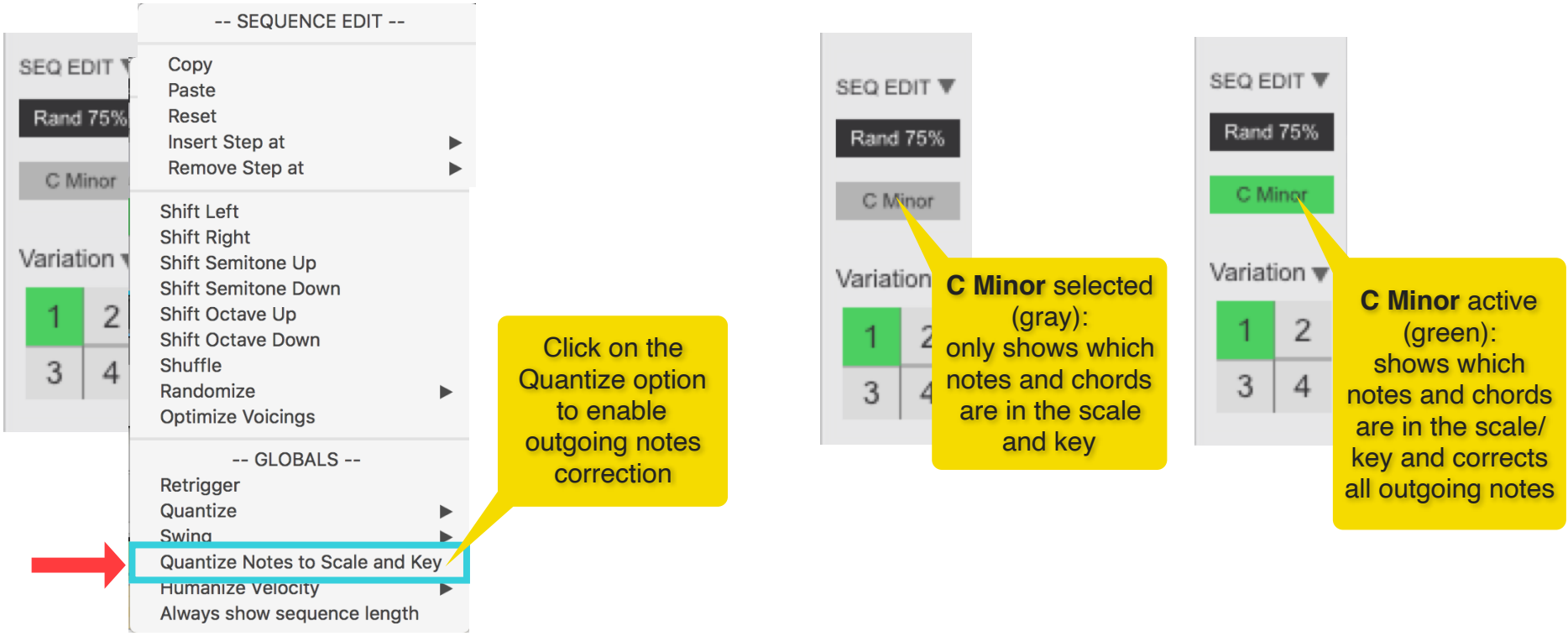




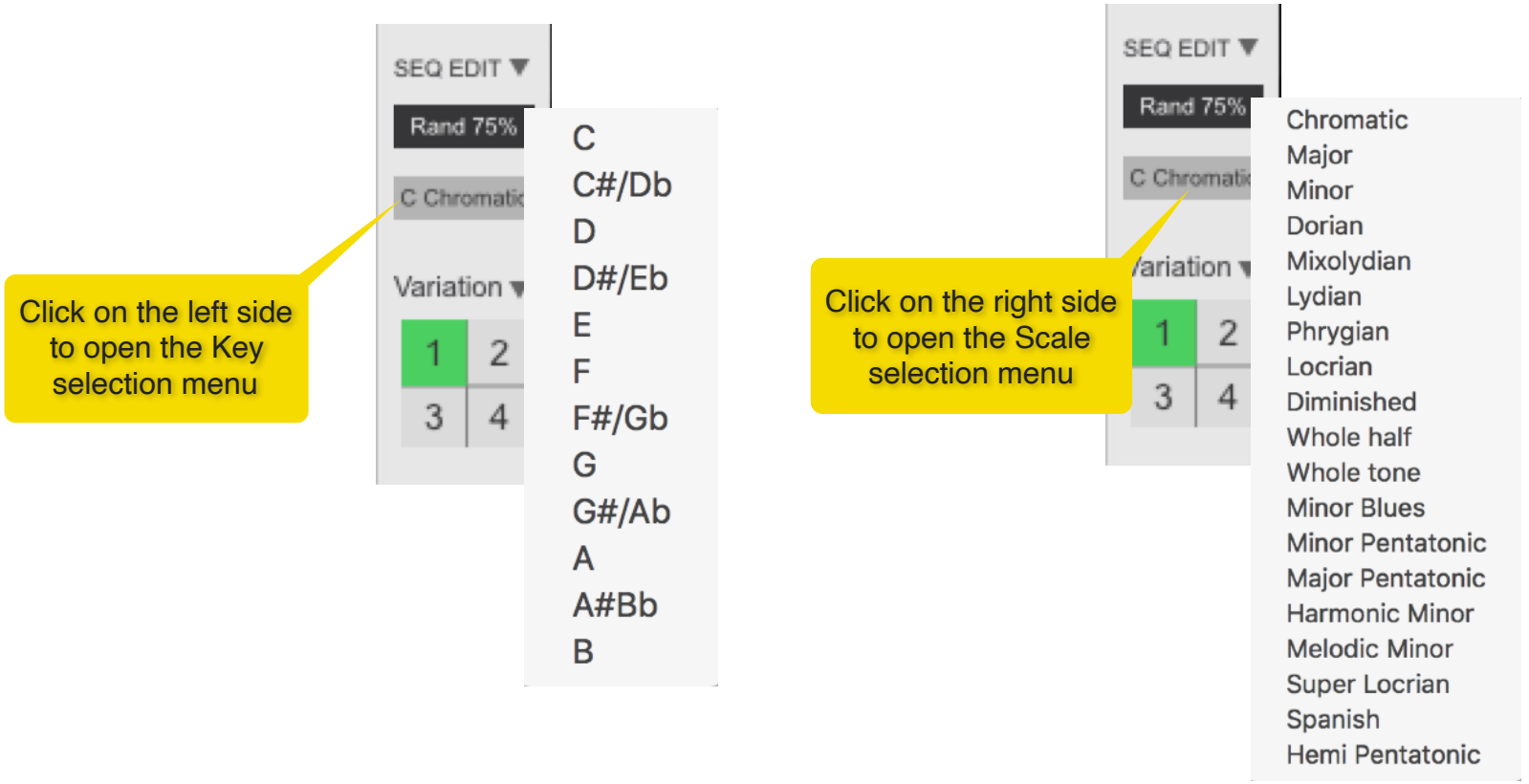
3.3.4 Scale and Key Correction

There are two ways to use the Scale and Key feature. In the first mode, selecting a Scale and Key does not have any effect on the outgoing notes, but it serves to show which notes and chords are in the selected scale and key. For example, when the root note is in the selected scale and key it is shown in a dark tone. Similarly the chord name is shown with a green circle around it.

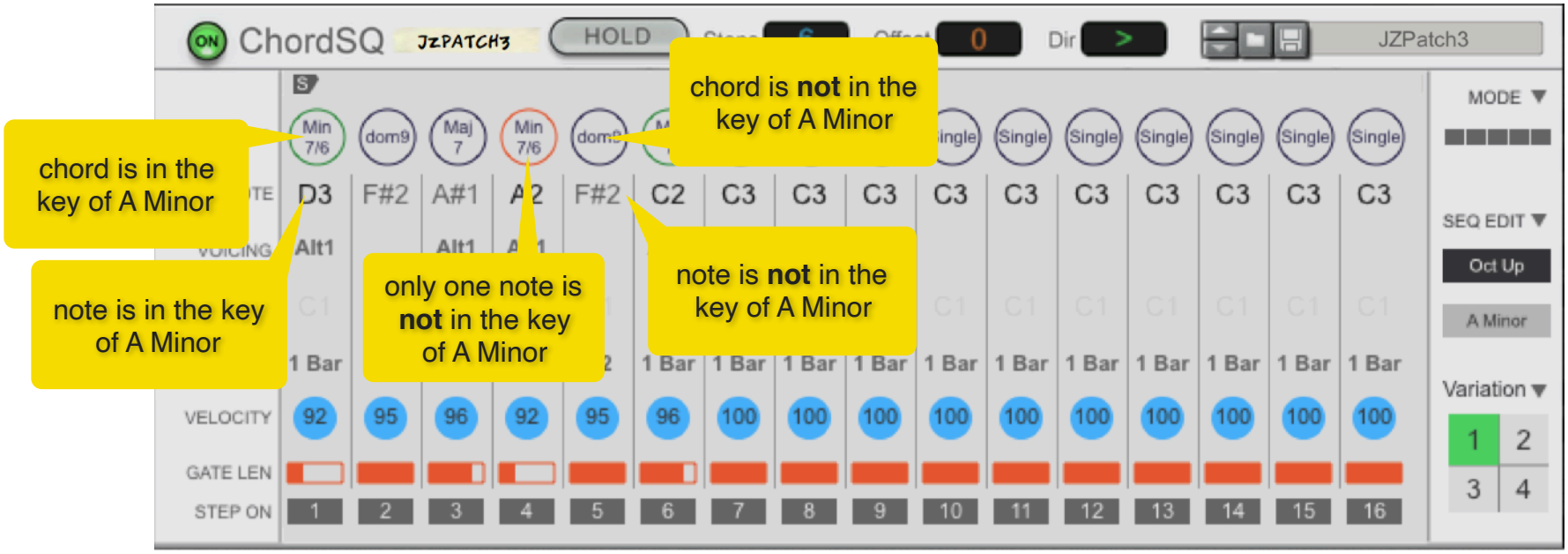
The second mode, which is activated by enabling the "**Quantize Notes to Scale and Key**" from the "Seq Edit" menu, in addition to showing which notes and chords are in key, also corrects any outgoing notes to the selected scale and key. Very convenient to have enabled when you want to "tame" the results of randomizations! When this mode is active, the button goes from grey to green as shown below.



To select a scale and key, click on the Scale and Key button as shown below.

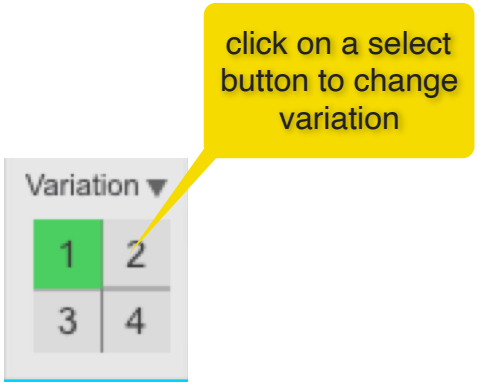


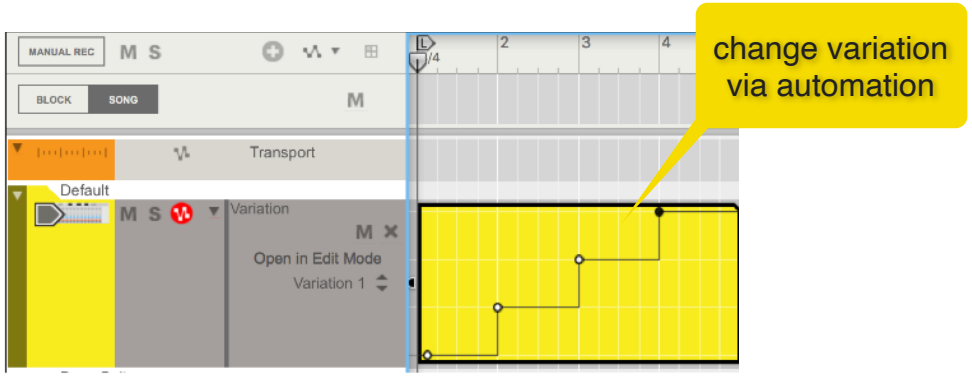
When a scale other than "Chromatic" is selected, the interface will show which notes and chords are in the selected scale and key with different colors. For example, notes in the scale are shown in dark grey while chords are shown with a green circle around them. Chords which have only one note not in the scale are shown with an orange circle.

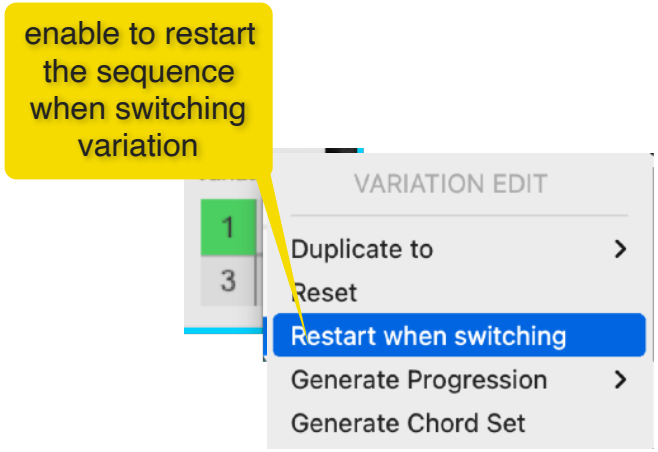


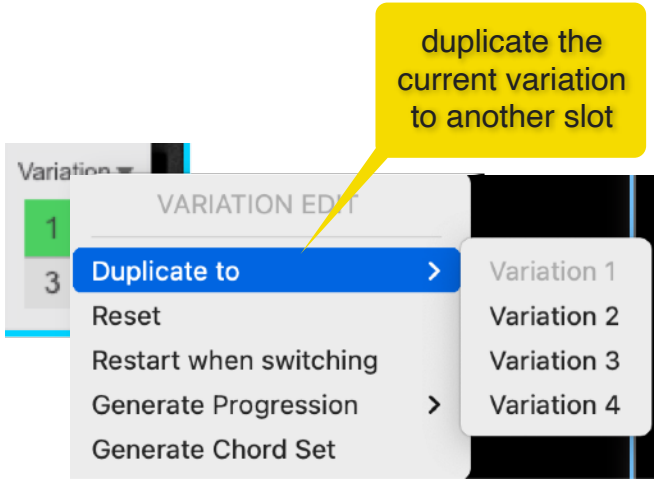
3.4 Variations

ChordSQ 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.









If you have either the Major or Minor scales selected, you can automatically generate chord progressions of a certain number of bars. Click on the Variation edit menu and select "Generate Progression". The algorithm will generate a progression using chords compatible with the selected scale. Please note, the option to generate progressions is only active when either the Major or Minor scales are selected.

If you have either the Major or Minor scales selected, you can automatically generate chord-sets of compatible chords. Unique chords are generated for all of the 16 steps and they can be played using the "Key Trig Individual Chords" mode. Please note, the option to generate chord-sets is only active when either the Major or Minor scales are selected.

3.5 CV and Gate Outputs

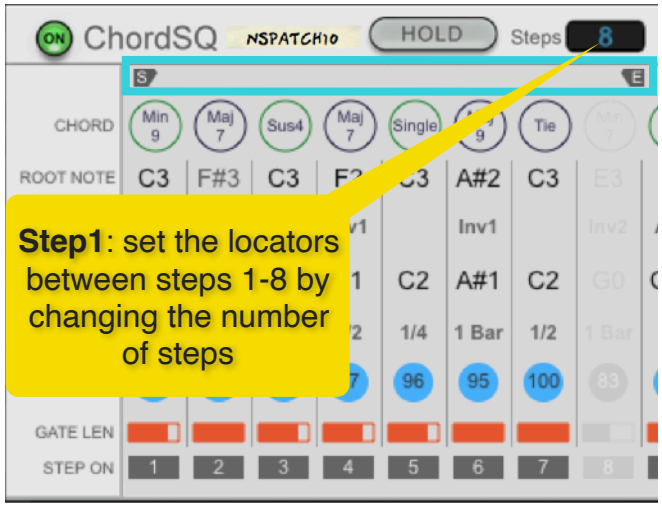
The player can send the chords and root note via dedicated Gate and Note CV outlets. These can be used if you want to have the same instance of ChordSQ trigger multiple devices. The root note outlet is especially useful to create bass parts to accompany the progression.

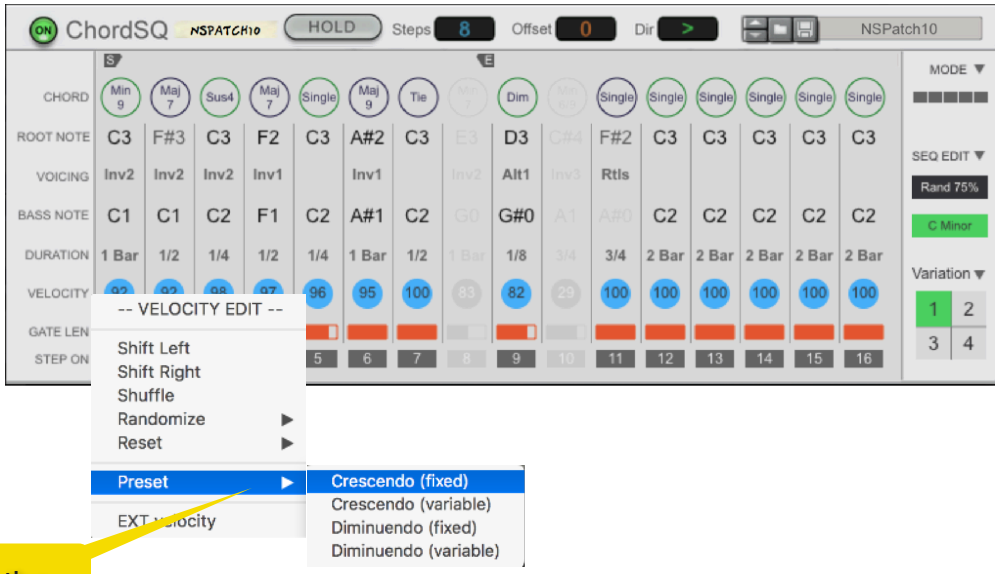
Also the chord out CVs can be connected to a NoteSet player which can be used to correct notes on other devices so that they align with the notes of the chord currently playing.

4. Tips and Tricks

4.1 Using the Start and End locators as selectors for editing

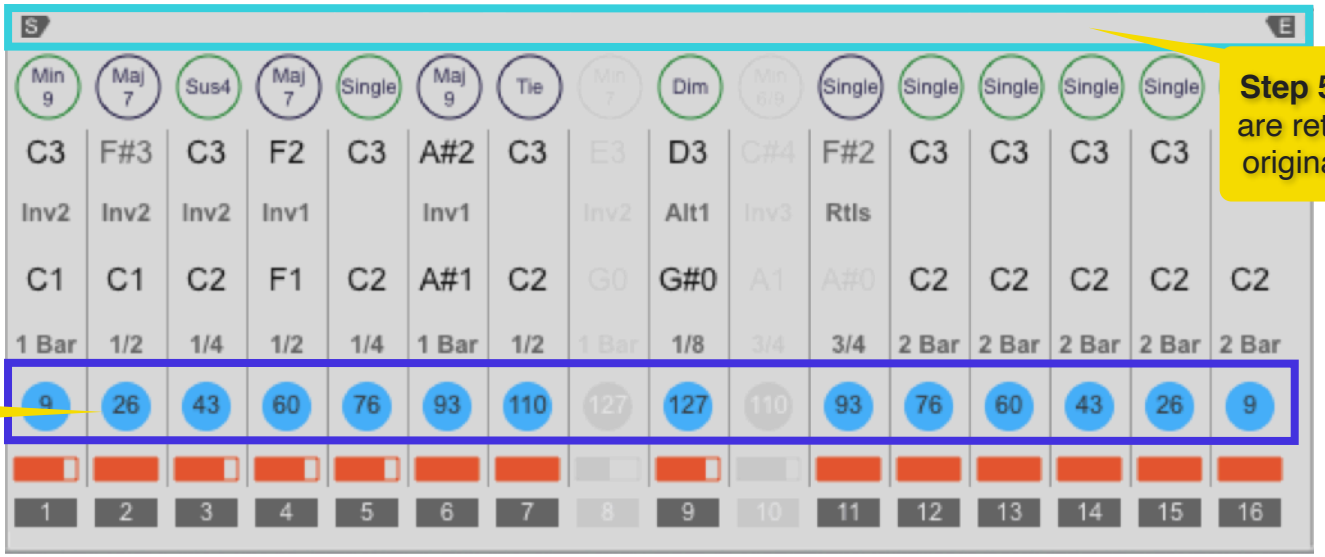
You can use the Start and End locators to perform editing functions. Basically, when used this way, you move the locators to a certain position in the sequence only temporarily, for the purpose of performing an editing task, and then you return them to their original positions. In section 3.3.1, there 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.





Step 3: move the locators to steps 9-16 by changing the offset

Step 4: apply the diminuendo preset to the selected steps

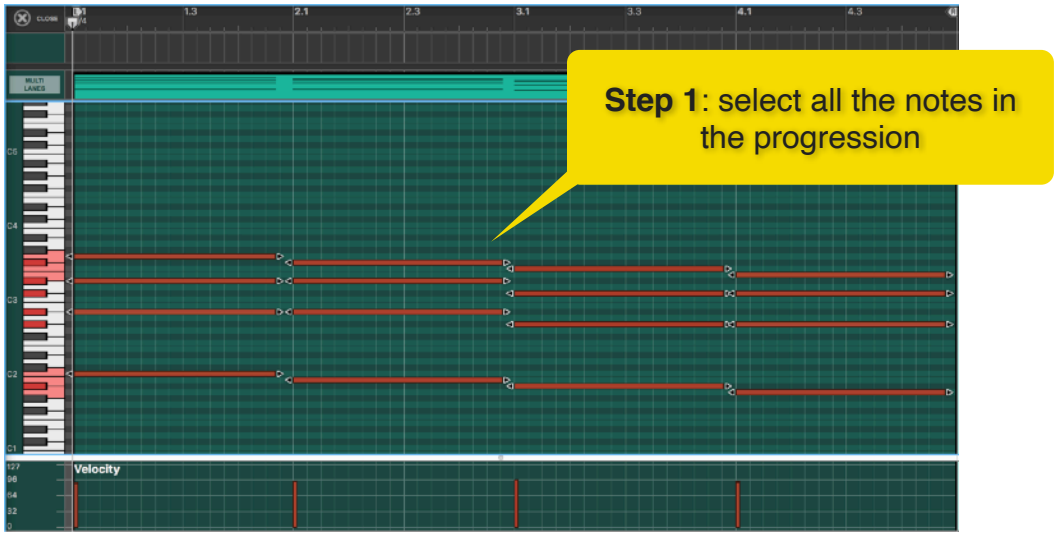


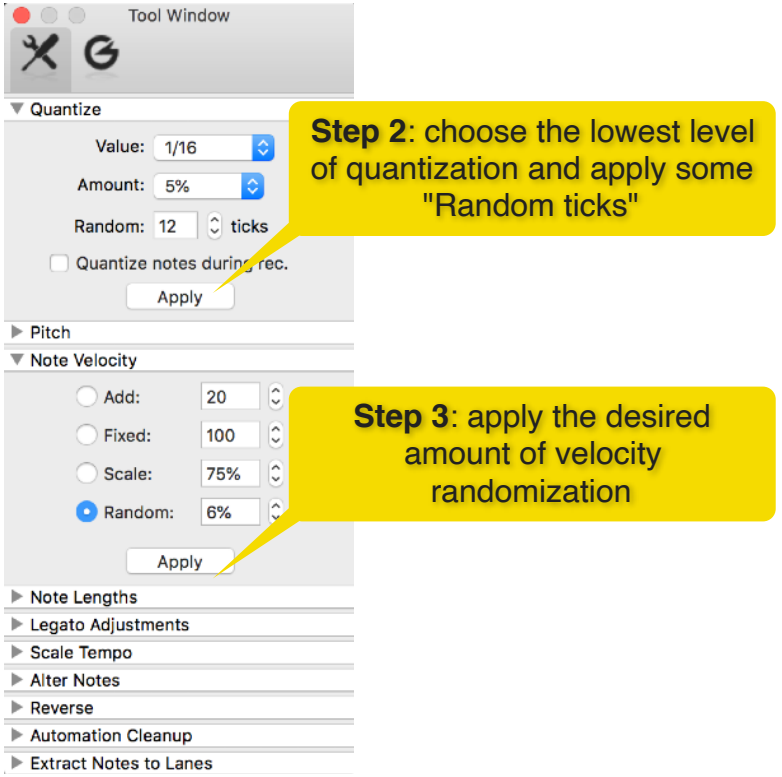
Step 5: the locators are returned to their original positions…

…and the velocity ramp up/down is done!

4.2 Humanize the chords

You have the option under the "Seq Edit" menu to choose three different amount of velocity randomization. This should help with creating less "static" sounding progressions. For even better results, you should take advantage of the midi editing features of Reason (or your DAW if you use the Rack VST). In this example, we are going to show a method which involves recording the progression unto a MIDI track and then using the "Tools Window" (F8) to affect the notes. To record the progression unto MIDI, you can either use the "*Send to track*" or the "*Direct Record*" methods for players. If you decide to use the "*Send to track*" method, create first a midi clip with a long note which lasts the duration of the progression. This will correctly trigger the ChordSQ sequencer. Once you have recorded the chords to MIDI, follow these steps.

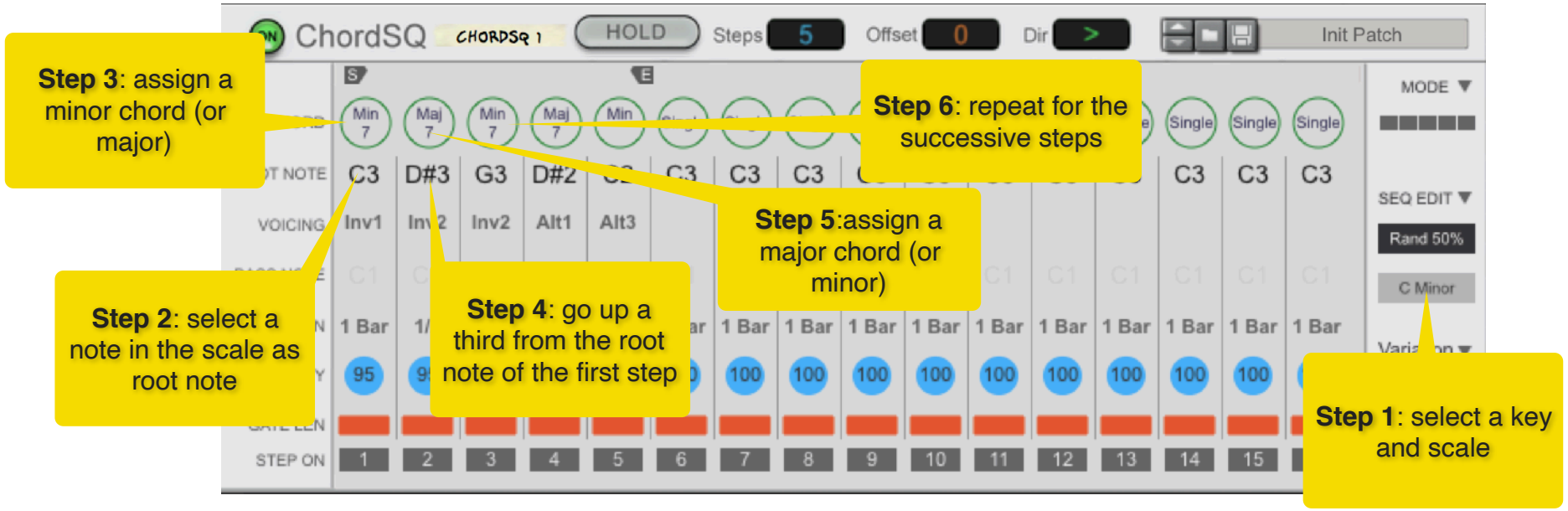




4.3 Emotional Chord Progressions

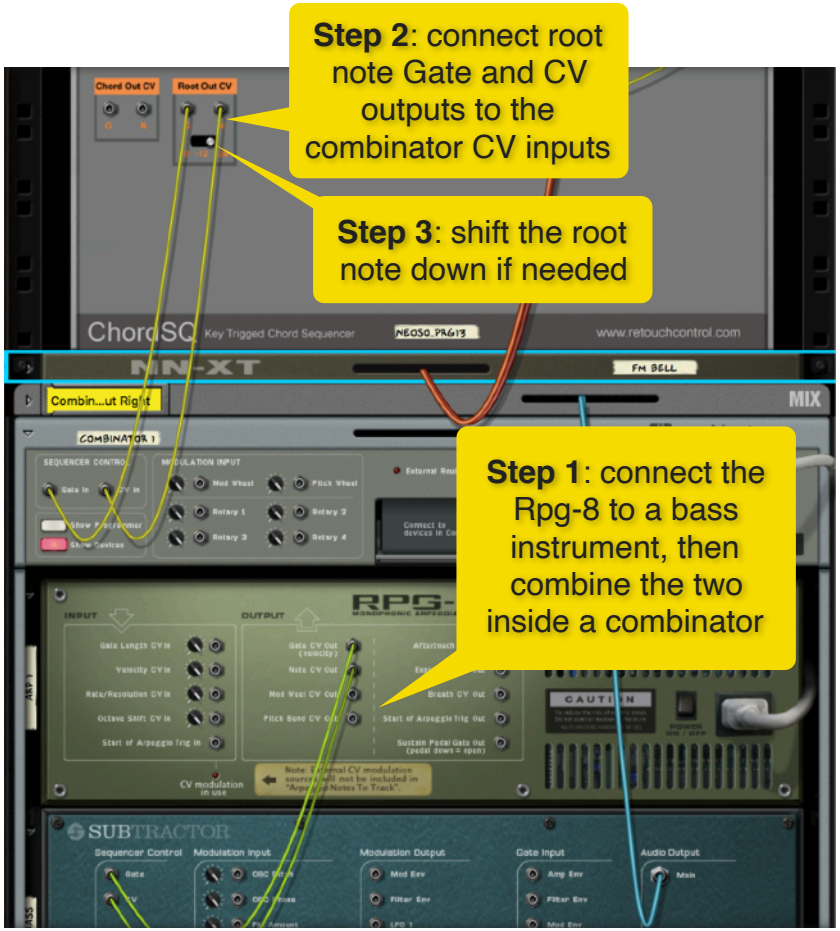
An easy trick to create emotional chord progressions is to go up and down a scale in thirds while playing alternating major and minor chords. This is very easy to do in ChordSQ. First select a key and scale in the "Seq Edit" section.

For the first step, pick any note in the scale as the root note and assign it a major or minor chord. For best results, if the scale has a major chord at that position, select that (if the chord is in the scale, the circle turns green). Then move to the next step. Adjust the root note so that it's a third above the root note of the first step. At this point, if you selected a major chord for the first step, select a minor chord for the second step. Carry on in a similar fashion until you have a satisfying progression. Make sure to select nice voicing so that there are not big jumps from chord to chord.



4.4 Create bass lines using the Root Note CV outputs

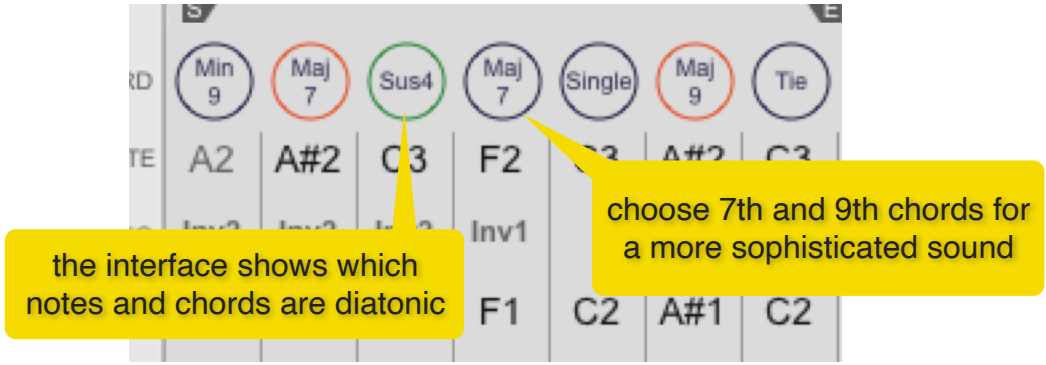
The chord and root note CV outputs in the back of the device can come in handy in several scenarios. For example, you could split the chord CV outputs from ChordSQ and feed the same chord progression to other devices or players. If you own the NoteSet player, then you can use these outputs for doing note correction based on the chord notes. There are many opportunities for experimentation. In this example, we are going to show a way to use the root note cv outputs to create "automatic" bass lines using the RPG8 device.



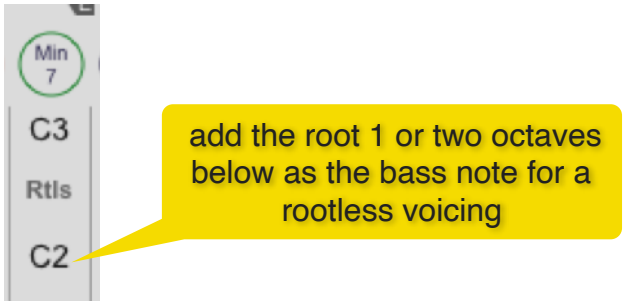
4.5 Beyond basic progressions

Chord progressions can be simple but can get quite complex as well! If you would like to go beyond the basics, here are some tips which might help to add a bit more sophistication to your chords.

Tip 1: choose a key and a scale as the basic foundation on which to build any progression. This is your home from which you can depart (as we'll show next) but to which you almost always want to return. Selecting a key and scale in ChordSQ has the advantage of showing the notes and the chords which belong to it.
For a more sophisticated sound, choose 7th and 9th chords when building your progression.

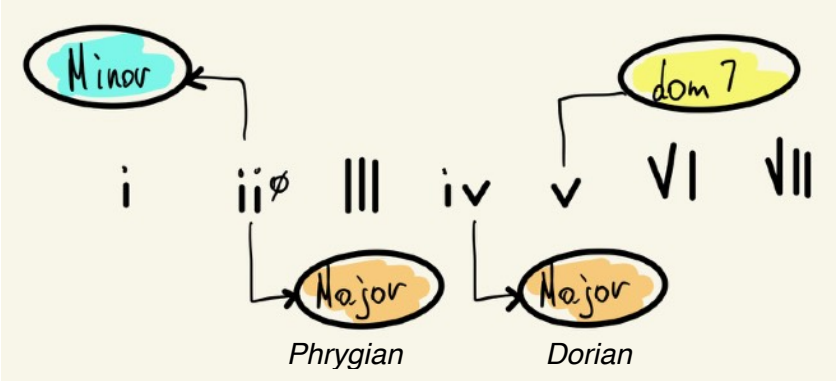


Tip 2: carefully voice your chords as it makes a difference. With 11 voicing types, it's easy to experiment in ChordSQ and find the one which works the best. For a more "closed in" sound, try *Inv1*, *Inv2* and *Inv3*. For a more "open and spread" sound, try *Alt1* to *Alt5*. *Rootless* voicing can also be very effective, especially when the root is played one or two octaves below, as shown below. For a a less "jumpy" progression with smaller interval changes from chord to chord, you can use "Optimize Voicing" in the "Seq Edit" menu.



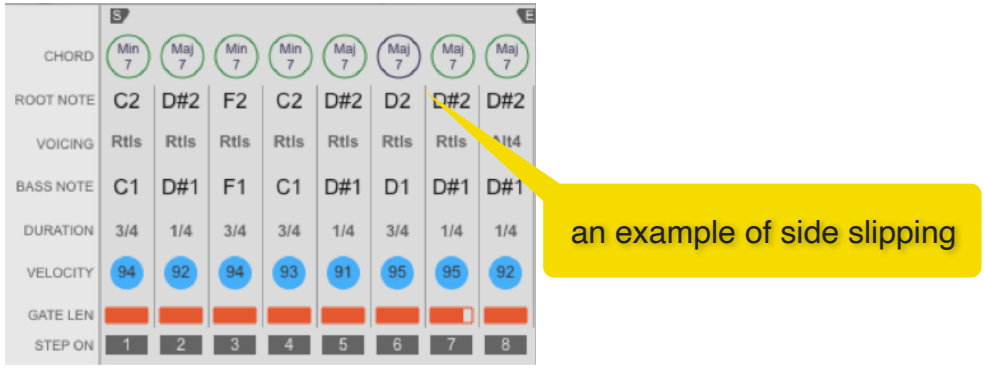
Tip 3: get temporarily out of the key. This adds instant sophistication when done properly. There are many techniques to go out of key, here are just some examples:

Chord Substitutions: here are some example of chord substitutions for a minor scale. Changing the chord type momentarily takes the music to a different key, often to a different mode of the same key as shown below (also called *modal interchange*).

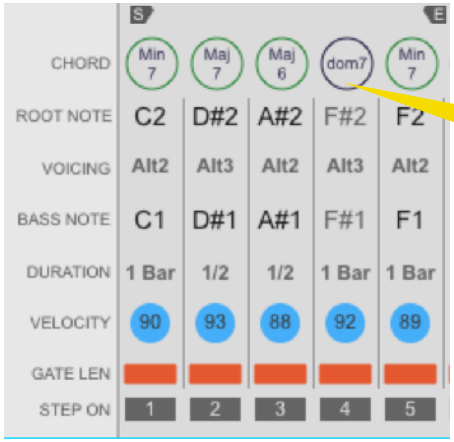


Chords of a Minor scale with substitutions

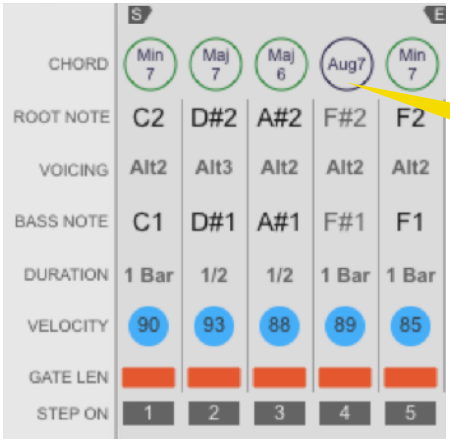
Side Slipping: this technique consists in playing the same chord type with the same voicing usually one or two semitones up/down from the chord in the scale. For example, in the progression below in C Minor, we go out of key for 3/4 of a bar by playing a Dmaj7 chord right after the D#maj7 chord scale, and then return to the D#maj7 to finish the progression.



Tritone Substitution: this technique is often used by jazz musicians in a 2-5-1 progression, however it is useful in other contexts as well. For example, the C minor progression below starts on C (the tonic), moves to the III (D#maj7), then goes to the VI (A#2maj), and before landing on the iv (Fmin7), passes by F#7 which is a dominant 7th chord not in the scale of C minor. Using a dominant 7th chord one semitone above the target scale chord can often be used to great effect to spice up an otherwise predictable sequence. As an alternative, an augmented chord can be used instead of the dominant chord.



use a dom7 chord one semitone above the target chord



as an alternative to a dom7, use an augmented chord

5. MIDI Implementation

MIDI CC - Parameter

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[5] = NumberSteps_P1,
[7] = NumberSteps_P2,
[8] = NumberSteps_P3,
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[14] = OffsetSteps_P3,
[15] = OffsetSteps_P4,
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[17] = Direction_P2,
[18] = Direction_P3,
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[23] = Scale_P4,
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[25] = Key_P2,
[26] = Key_P3,
[27] = Key_P4,
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 [116] = ChordType15_Pat1,
 [117] = ChordType16_Pat1,
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[161] = ChordType4_Pat4,

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[162] = ChordType5_Pat4,
[163] = ChordType6_Pat4,
[164] = ChordType7_Pat4,
[165] = ChordType8_Pat4,
[166] = ChordType9_Pat4,
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[171] = ChordType14_Pat4,
[172] = ChordType15_Pat4,
[173] = ChordType16_Pat4,
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[176]  = Root3_P1,
[177]  = Root4_P1,
[178]  = Root5_P1,
[179]  = Root6_P1,
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[189]  = Root16_P1,
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[191]  = Root2_P2,
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[231]  = Root10_P4,
[232]  = Root11_P4,
[233]  = Root12_P4,
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[234]  = Root13_P4,
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[237]  = Root16_P4,
```

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 parameters for Variation 1.

Remotable	Min	Max	Input type	Output type
Steps Var1	0	15	Value	ValueOutput
Offset Var1	0	15	Value	ValueOutput
Dir Var1	0	6	Value	ValueOutput
Scale Var1	0	18	Value	ValueOutput
Key Var1	0	11	Value	ValueOutput
ChordType1 Var1	0	43	Value	ValueOutput
ChordType2 Var1	0	43	Value	ValueOutput
ChordType3 Var1	0	43	Value	ValueOutput
ChordType4 Var1	0	43	Value	ValueOutput
ChordType5 Var1	0	43	Value	ValueOutput
ChordType6 Var1	0	43	Value	ValueOutput
ChordType7 Var1	0	43	Value	ValueOutput
ChordType8 Var1	0	43	Value	ValueOutput
ChordType9 Var1	0	43	Value	ValueOutput
ChordType10 Var1	0	43	Value	ValueOutput
ChordType11 Var1	0	43	Value	ValueOutput
ChordType12 Var1	0	43	Value	ValueOutput
ChordType13 Var1	0	43	Value	ValueOutput
ChordType14 Var1	0	43	Value	ValueOutput
ChordType15 Var1	0	43	Value	ValueOutput
ChordType16 Var1	0	43	Value	ValueOutput
Root1 Var1	0	95	Value	ValueOutput
Root2 Var1	0	95	Value	ValueOutput
Root3 Var1	0	95	Value	ValueOutput
Root4 Var1	0	95	Value	ValueOutput
Root5 Var1	0	95	Value	ValueOutput
Root6 Var1	0	95	Value	ValueOutput
Root7 Var1	0	95	Value	ValueOutput
Root8 Var1	0	95	Value	ValueOutput
Root9 Var1	0	95	Value	ValueOutput
Root10 Var1	0	95	Value	ValueOutput
Root11 Var1	0	95	Value	ValueOutput
Root12 Var1	0	95	Value	ValueOutput
Root13 Var1	0	95	Value	ValueOutput
Root14 Var1	0	95	Value	ValueOutput
Root15 Var1	0	95	Value	ValueOutput
Root16 Var1	0	95	Value	ValueOutput
Voicing1 Var1	0	10	Value	ValueOutput

Voicing2 Var1	0	10	Value	ValueOutput
Voicing3 Var1	0	10	Value	ValueOutput
Voicing4 Var1	0	10	Value	ValueOutput
Voicing5 Var1	0	10	Value	ValueOutput
Voicing6 Var1	0	10	Value	ValueOutput
Voicing7 Var1	0	10	Value	ValueOutput
Voicing8 Var1	0	10	Value	ValueOutput
Voicing9 Var1	0	10	Value	ValueOutput
Voicing10 Var1	0	10	Value	ValueOutput
Voicing11 Var1	0	10	Value	ValueOutput
Voicing12 Var1	0	10	Value	ValueOutput
Voicing13 Var1	0	10	Value	ValueOutput
Voicing14 Var1	0	10	Value	ValueOutput
Voicing15 Var1	0	10	Value	ValueOutput
Voicing16 Var1	0	10	Value	ValueOutput

7. Version History

Version 1.0.0: initial release

Version 1.1.0:
- added "Show Scale Degrees" option which shows the root notes as roman numerals if they are in the selected key and scale
- added more lengths to the Duration selection menus
- added more chord presets to the Chord Type selection menus
- added "Insert and Remove Step at" options in the Seq Edit menu
- added a "Random Walk" option in the sequencer direction menu
- extended the "Shift + drag" method for changing values to more step parameters (e.g. gate, duration, voicing)
- improved the "Optimize Voicings" algorithm in the Seq Edit menu
- various bug fixes

Version 1.2.0:
- added "Host Transport Sync" to sync the chord sequence to the Reason sequencer
- fixed a bug with the "Inv 3" voicing and 3 notes chords. Re-labelled the inversion voicing in the selection menu

Version 1.3.0
- added new randomization options for the Chord Type and the Voicing step parameters
- added scale chords directly in the Chord Type menu when a scale and key are selected
- added "Generate Pattern" of various lengths in bars from the Duration Edit menu
- added "Generate Chord Progression" and "Generate Chord Set" from the Variation Edit menu. These options are active when the Major or Minor scales are active
- added more chord types and more options for chord voicing
- added full range Reset options in the Root and Bass notes edit menus
- added option to "Show Flat Accidentals" in the Sequence Edit menu
- added two more options for "Show Scale Degrees" in the Sequence Edit menu