Switch v3

Gate sequencer

INTRODUCTION

Switch is a gate sequencer. At its core foundation is a high-precision step sequencer that's running in sync with the host transport and driving a gate pattern – a series of on/off switches that define whether the input audio will be passed through (gate open) or will be muted (gate closed). **Switch** has a total of 8 gate patterns with up to 32 steps each, and offers an extremely wide range of timing settings for creating polymetric or polyrhythmic motion in any time signature. A single gate pattern is active at a given time, however, all of the patterns can be edited on the fly, and the interface also offers multiple macro editing functions.

The sequencer algorithm has advanced swing support: not only the ratio can be smoothly adjusted in real time, with both positive and negative values, but it also keeps correct swing timing when the pattern length is an odd number. The gate itself has variable time and is shaped using a two-pole low-pass filter for natural yet snappy transitions – not too far from an analog circuit. With all its simple tools combined, **Switch** allows for extremely quick creation of rhythmic audio level patterns: from classic trancegate and intricate tremolo effects, to beat chopping, pulsating accents, complex staccato, and beyond.

Furthermore, the preset format of **Switch** is fully open: it uses pure XML to clearly present the plugin's main parameters as well as all the sequencer patterns. This means anyone has the ability to view and modify this data in a text editor, and also generate custom gate patterns via any programming language.

SPECIFICATIONS

SOUND ENGINE

– Step sequencer with rhythmically correct swing, polymetric and polyrhythmic abilities

– 8 gate patterns with individual step count

– Two-pole analog-style lag filter for variable gate transition smoothing

– One-pole lag filters on all continuous parameters for smooth, click-free adjustment

– Supports mono › mono, mono › stereo, and stereo › stereo channel configurations
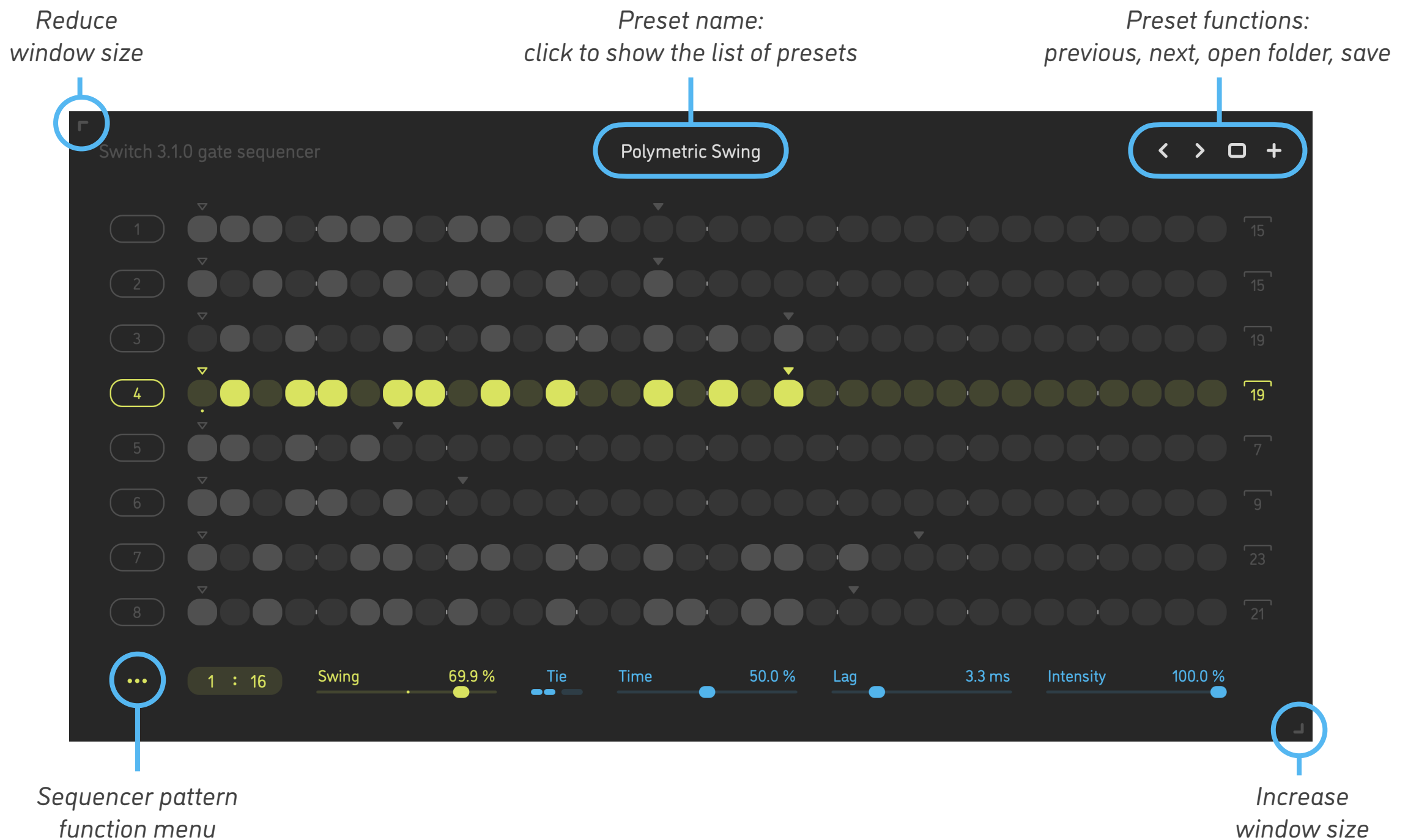
SUPPORTED FORMATS

– **Mac**: AU/VST3/AAX for macOS 10.13 or newer (64-bit Apple Silicon and Intel)

– **Windows**: VST3/AAX for Windows 8.1 or newer (64-bit Intel and AMD)

– **Linux**: VST3 for Linux 2020 or newer (64-bit Intel and AMD)

GRAPHIC INTERFACE

– Color-coded graphic elements

– Consistent name, mapping, value, and unit implemented for all parameters in both graphic user interface and host control/automation

– Sequencer pattern macro editing functions: copy, paste, reset, trim, invert, shift, evolve, randomize, and loop region

– Built-in preset management functions

– Open preset format for experimental pattern tweaking and generation

– Supports window size scaling up to 200%

INTERFACE

Switch features a fully vector-based interface, with color-coded elements for effective visual grouping. The plugin allows you to change its window size from 0.8x to 2x in 10% increments. The last size you set is stored in a preference file and is recalled the next time **Switch** is loaded.

Reduce
window size

Preset name:
click to show the list of presets

Preset functions:
previous, next, open folder, save

Switch 3.1.0 gate sequencer   Polymetric Swing   < > ▢ +

1	15
2	15
3	19
4	19
5	7
6	9
7	23
8	21

···   1 : 16   Swing   69.9 %   Tie   Time   50.0 %   Lag   3.3 ms   Intensity   100.0 %

Sequencer pattern
function menu

Increase
window size

- Hold *shift* and drag a slider to adjust the parameter with increased resolution.

- Use *option-click* (Mac) or *alt-click* (Windows, Linux), or *double-click* any knob to recall its default setting.

- To fully initialize all plugin's parameters, load the preset named *Default* from the *Factory* or the *User* bank.

PRESET FUNCTIONS

Switch features simple built-in functions for saving and loading presets, as well as for quickly switching between presets within the same bank. All these functions are accessed via the top toolbar.

Preset Name Click the preset name at the top to show the list of presets in the current bank. Use *command-click* (Mac) or *control-click* (Windows, Linux) to reveal the actual preset file in the system file browser.

< Switch to the previous preset in the current bank. The current bank is automatically set to wherever the last preset was loaded from.

> Switch to the next preset in the current bank.

▢ Show open file dialog with the list of preset banks. By default, the plugin includes two banks: *Factory* and *User*. However, you can freely create additional banks – simply by creating new subfolders.

+ Save current preset. Please note: due to the limitations of the typeface, you can only use latin letters when naming your presets

EDITING

Select active
sequencer pattern

End step marker can be dragged left or
right to define the pattern length

Pattern length indicator

While the inactive sequencer patterns are greyed
out, they can still be edited just like the active pattern

Step division markers are used to visually
group steps into beats, depending on step rate

Sequencer step duration as a fraction of
the host tempo (1/32 note to 16 bars)

Tie gates
of adjacent steps

Lag time of the gate transitioning
between open and closed states

1 : 32

Swing   50.0 %

Tie   Time   50.0 %

Lag   7.5 ms

Intensity   100.0 %

Sequencer pattern
function menu

Duration ratio between odd
and even sequencer steps

Gate open time relative to
the sequencer step duration

Intensity of the gated audio signal
relative to the dry input signal

FUNDAMENTALS

The sequencer pattern defines on which steps the gate is open or closed. By default, the switches on all steps are turned on, and – with all other settings left as default – the resulting gate is always open and thus the audio is constantly passed through. The gate signal is just a flat line.

The sequencer is running through the gate pattern's steps in cycles. When it plays through a step that's been turned off, the gate will be closed, muting the audio for the entire duration of the step.

Adjusting the **time** parameter allows to change for how long the gate is open relative to the duration of that step. If the gate **time** is set to 50%, for example, the gate will only be open for half of the step's duration.

The **tie** switch allows to change the gate behavior for adjacent steps. If the tie switch is on, and step switch is on for both the current step and the next step, the current step's gate will be open for 100% of the step's duration, overriding the **time** parameter. Here is how the exact same gate pattern will look with **tie** on and **time** set to 50%.

The **swing** parameter allows to adjust the relative duration between odd and even sequencer steps. At 50% setting, the duration of the steps in the odd/even pair is the same. Above this value, odd steps become longer while even steps become shorter. Below 50%, it works the opposite way. The pattern below has **swing** set to 65% and **time** set to 50%.

Using the **lag** parameter gives the ability to vary the amount of gate signal smoothing via a two-pole low-pass filter algorithm. The higher the **lag** time value, the longer it will take for the gate to transition between open and closed states. The pattern below has **lag** set to 50 ms and **time** to 50%.

PATTERN FUNCTIONS

Switch includes a number of handy pattern utility functions, available in an overlay menu. All of these functions only affect the currently active pattern.

Copy	Copy the pattern into the temporary buffer
Paste	Paste into the pattern from the temporary buffer
Reset	Set all pattern steps to default values (gate on)
Trim	Set all pattern steps beyond the end step marker to off
Invert	Invert switches on all pattern steps (on becomes off and vice versa)
Shift Left Shift Right	Shift all steps to the left or the right of the sequence, with the sequence itself wrapped within the currently active pattern region (that's defined by the end step marker)
Evolve	Invert switches on select pattern steps; steps are selected with 10% probability
Randomize	Randomize switches on all pattern steps
Loop Region	Repeat the steps within the active pattern region (until the end step marker) multiple times until the maximum step count (32) is reached + set the pattern length to an integer multiple of that region; e.g. 7 steps will be looped 4 times and pattern length will become 28, 9 steps will be looped 3 times and pattern length will become 27 - and so on

SINEVIBES

DOWNLOADABLE
SUPERPOWERS