Hello and Welcome! POLYLLOP is a polyphonic and polymeter sequencer capable of playing up to four notes simultaneously—each with its own dedicated lane for rhythm, melody, duration, and velocity. By assigning different lengths and behaviors to each lane, you can craft intricate patterns that go beyond typical DAW sequencing or arpeggiating. Even small changes—such as adjusting a single parameter—can lead to unexpectedly musical and expressive results. Thanks to its MIDI transpose features, POLYLLOP can also function as a sophisticated arpeggiator and chord maker, constantly evolving within the selected scale of your song. Building on the framework of SEQUND, our flagship sequencer, POLYLLOP keeps the same simple logic, allowing you to deliver complex and musically creative outcomes with ease.

USER MANUAL

Version 1.0.0

PLUG-IN INSTALLATION

Double-click the installer file (POLYLLOP.pkg for Mac or POLYLLOP installer.exe for Windows) and follow the on-screen instructions. When prompted for a license type, choose Original if you have a Serial key, or Beatport if you purchased Polyllop through Plug-in Boutique's Rent-to-Own model or if you have a Beatport Studio subscription . Then enter your Serial Number or activate Beatport Studio to unlock all features and exit Demo Mode.

NOTE: It is essential to be connected to the internet when entering your Serial Key.

HOST INTEGRATION

POLYLLOP is a MIDI plugin and doesn't generate any sound on its own. It strictly outputs MIDI data. Because of its format, some DAWs may treat POLYLLOP as an AU/VST instrument, which can prevent placing it in the same MIDI track as another instrument. The setup requires the following steps:

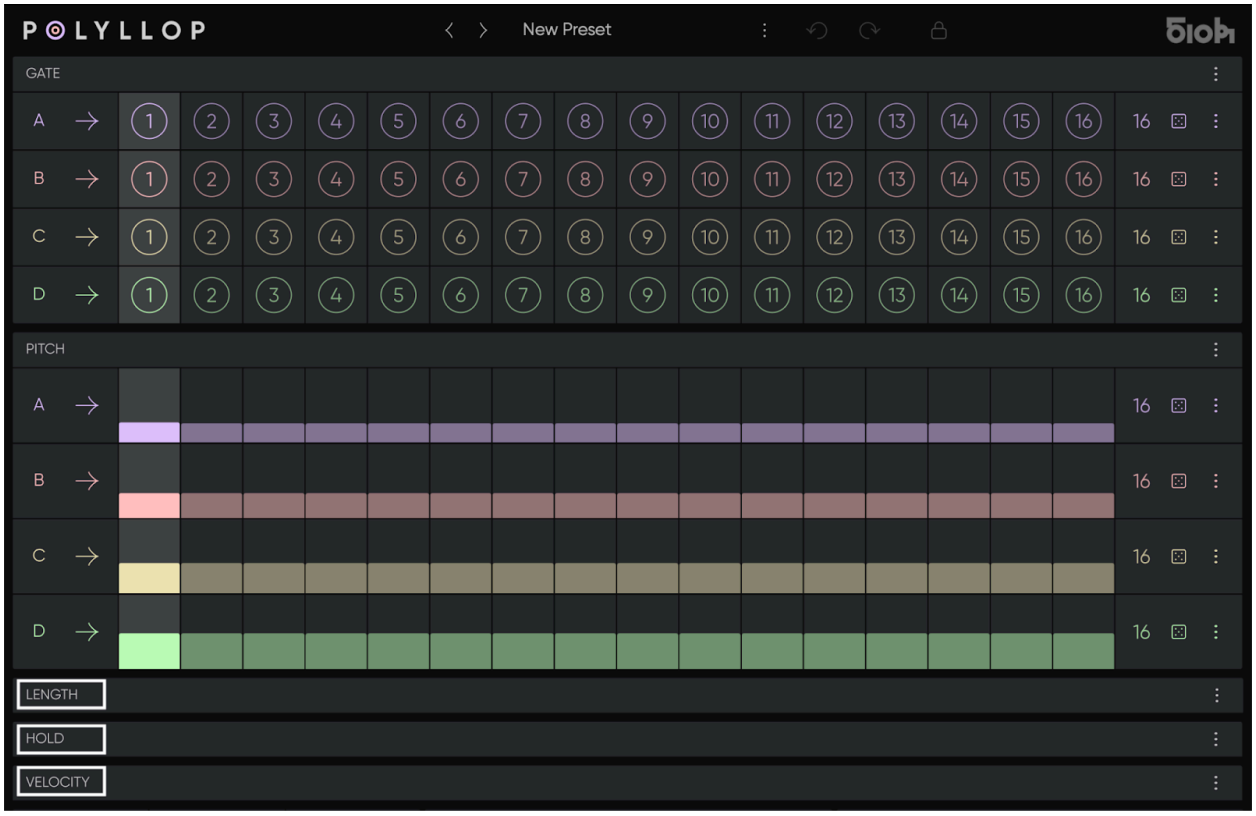
- **Ableton Live** - Create a MIDI Track and drag and drop POLYLLOP in it. Create a second MIDI track and insert the Soft-Synth of your choice. In the Soft-Synth channel, open the MIDI Input drop down menu below and select MIDI from "?-POLYLLOP" and in the drop down menu just below, instead of "Post FX" select "POLYLLOP" again. Set the MIDI Input Monitoring to "IN", set some gates in POLYLLOP and then press Play.
- **Bitwig** - Create an Instrument track and insert POLYLLOP before your Soft-Synth target. Set some gates in POLYLLOP and then press Play.
- **Cubase** - Go to "Devices" and choose "VST Instruments" from the drop down menu. Choose POLYLLOP and in a further instance the synth you want to control. Choose POLYLLOP as MIDI input in the MIDI track for your Soft-Synth. Set some gates in POLYLLOP and then press Play.
- **FL Studio** - Add POLYLLOP and the Soft-Synth of your choice to your Channel Rack and set POLYLLOP's MIDI output to the same MIDI input channel of your Soft-Synth. Set some gates in POLYLLOP and then press Play.
- **Logic** - Create an Instrument Channel Strip, select POLYLLOP in the MIDI FX slot and select your Soft-Synth in the INPUT slot. Set some gates in POLYLLOP and then press Play (or vice-versa).
- **Reaper** - Create an Instrument track and insert POLYLLOP. Insert your Soft-Synth after that. Set some gates in POLYLLOP and then press Play.
- **Studio One** - Create an Instrument track and load POLYLLOP as an insert. Create a Track with your Soft-Synth and set the MIDI input to POLYLLOP and activate record on the same track to receive the MIDI signal. Set some gates in POLYLLOP and then press Play.

- **Sonar** - Insert POLYLLOP as a Soft-Synth on a channel and activate the MIDI output option in the Insert Soft-Synth Options Box. Route the MIDI output from POLYLLOP to the Soft-Synth of your choice. Set some gates in POLYLLOP and then press Play.
- **Pro Tools** - For AVID Pro Tools, the available plugin format is AAX. Create an Instrument Track (define the amount of channels depending on the projected instrument you want to use), Insert POLYLLOP on your track and then insert your instrument right below.

HOW DOES POLYLLOP WORK?

POLYLLOP is divided in 2 main windows: The EDIT WINDOW and the GLOBAL SETTINGS WINDOW.

EDIT WINDOW



The Edit window is organised into a header and five Blocks —Gate, Pitch, Length, Hold, and Velocity— each containing four lanes (A,B,C and D). In every lane you can enter or randomize step data, and each lane's length is independently adjustable. All lanes feed a single MIDI output.
Gate and Pitch Blocks are always visible. Length, Hold, and Velocity share one panel: use the [Show/Hide Block] buttons to fold or unfold them as needed; they remain active even when hidden.

PRESET SELECTION

A sequence you create is stored as a preset. Each preset can hold up to twelve patterns. Switch patterns instantly with the 1-12 buttons in the Pattern panel (Global Window) or by sending the corresponding MIDI notes and [MIDI Pattern Switch] enabled.

Select a preset by clicking on the [Preset Window] located on the header of POLYLLOP. A drop down menu will give you access to the Factory, Artist or User presets. Alternatively you can scroll through all available presets by using the [Preset Arrows] located on the left side of the [Preset Window]. Note that the User Preset folder is unavailable until you save your first User Preset.

PRESET MANAGEMENT AND LICENSE MANAGEMENT

The three dots to the left of the [Preset Window] open the [Preset Menu] and give further access to the following preset management features:

- **New Preset** - Create a New Preset according to your default settings.
- **Open Preset** - Open a Preset from any location on your Disk.
- **Save Preset** - Overwrites or Saves your current Preset.
- **Save Preset as…** - Saves your current preset as a copy by prompting a renaming.
- **Save As Default** - Saves your current preset as the default template setting.
- **Rename** - Allows you to rename your current Preset.
- **Open Preset Folder** - Opens your Preset folder on your drive for quick file management.
- **Set Preset Folder** - Allows you to define a custom location of your User Preset Folder on your Disk.
- **Manage Your License** - Allows you to enable or disable your license. Enter your Serial in the [Serial Window] to enable all the features of POLYLLOP. When disabled, POLYLLOP will go back to Demo Mode. To reactivate, just enter your Serial number again and make sure you are connected to the Internet.

NOTE: If the factory presets are missing, see the Troubleshooting section at the end of this manual.

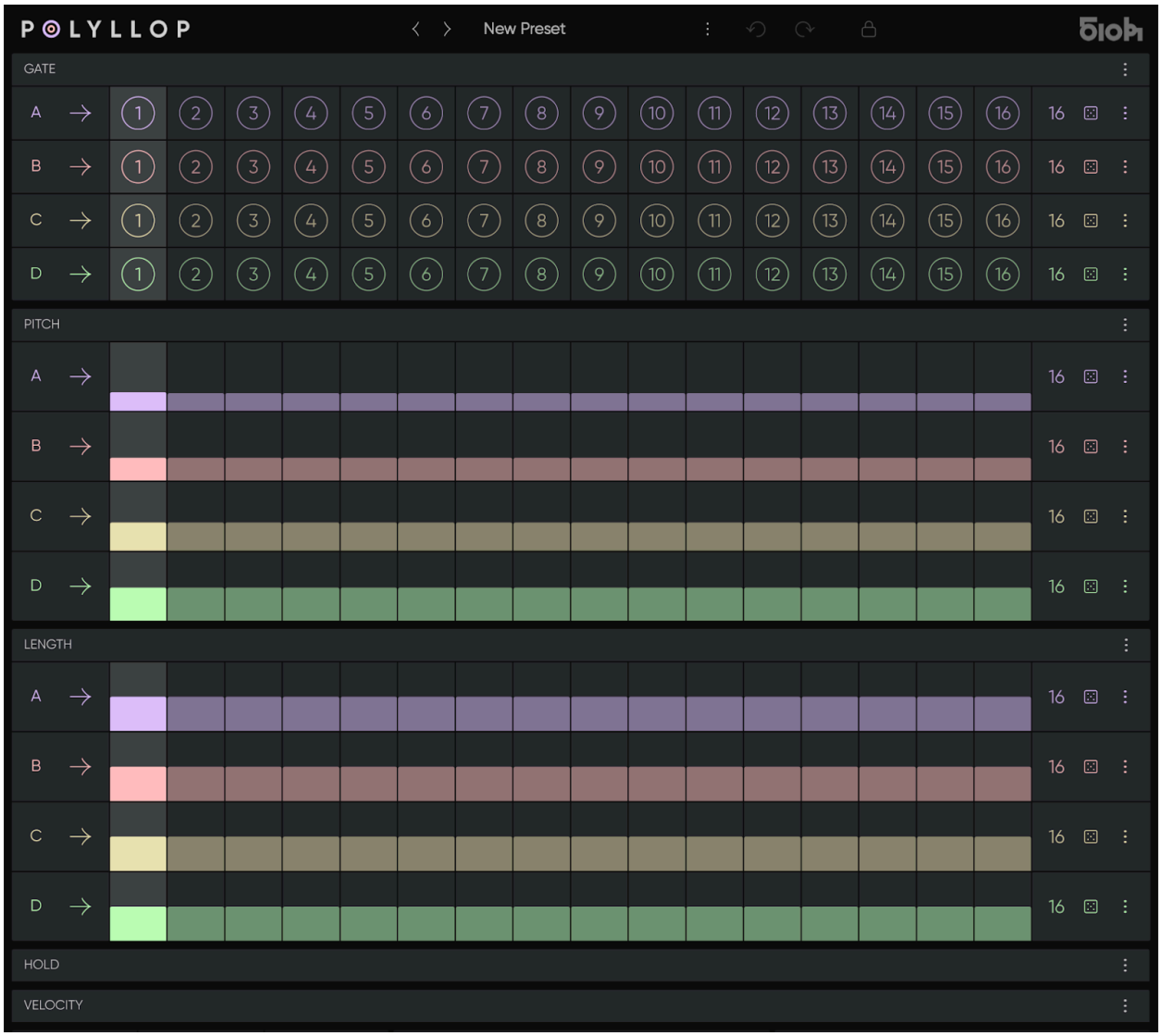
UNDO / REDO

Any action can be undone or redone by using exclusively the [Undo/Redo] arrows to the right of the [Preset Window]. Note that this function is proprietary to POLYLLOP and cannot be accessed via the usual Ctrl+Z shortcut.

STEP LOCK

When [Lock] is activated, small dots appear in the bottom-right corner of each cell on hover. Clicking these dots locks the cell, preventing it from being affected by randomization or reset. To clear locked cells, use the corresponding Block or lane menu.

BLOCKS



- **Gate Block**- The four Gate lanes set the rhythm. Each step follows the clock-division value in the lower-left Global window (set to 16th-notes by default). A Gate step must be present to trigger the corresponding Pitch lanes and produce a note.
- **Pitch Block** - The four Pitch lanes are where you input melodic patterns. Since all four lanes can play simultaneously, you can overlap voices to form chords, counterpoints or multi-layered melodies.
- **Length Block** - Each Length lane sets the gate length for its respective step, up to a maximum defined by the clock division setting. For instance, if the clock division is set to 1/16th, the longest possible gate length in that lane will be one sixteenth note.
- **Hold Block** - Enabling Hold lengthens the active note on that lane until the next Gate event, creating a longer sustain. Unlike in SEQUND, the note will only extend until the next Gate in the same lane and won't overlap other notes.
- **Velocity Block** - The Velocity lanes will shift each step up or down in velocity steps between 0 and 127. A velocity value of 0 will trigger a note off value.

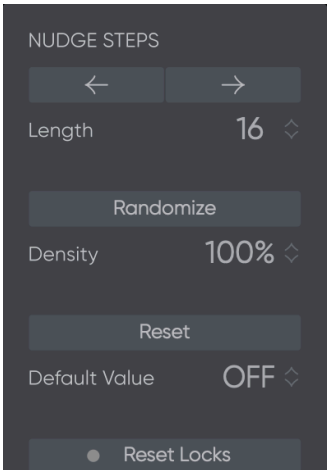
COMMON BLOCK FEATURES

Each Block has four lanes—A, B, C, and D. Click the icon in the Block's upper-right corner to open its parameter menu and edit all four lanes together.

Within these Block parameter menus, you can adjust lane lengths for all lanes at once and set step counts in a single move. You can also shift the entire Block sequence using the arrow buttons, making it faster to manage overall settings before refining individual lanes.

BLOCK MENU

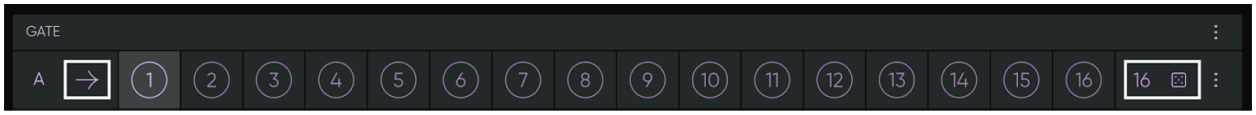
The [Block Menu] options may vary slightly for each Block, but they all follow the same logic.



- **Nudge Steps** - Use the [Nudge Steps] arrows to shift the entire Block sequence left or right by one step, moving all active cells across the four lanes.

- **Lane Length** - Set all four lanes to the same length by dragging the value.
- **Density** - Density is the chance a step will be altered when randomizing the lane. A higher value results in more steps being altered. This applies to the entire Block.
- **Reset** - Reset will set each cell to the 'Default Value' defined in the Block menu.

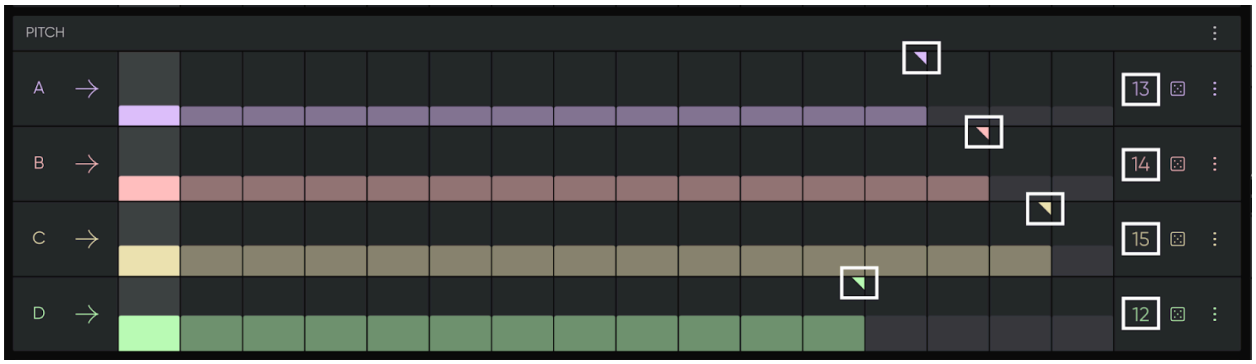
COMMON LANE FEATURES



Each of these lanes features individual [Play Mode] and [Length] settings. Lane values can be randomized by clicking on the [Dice] on the right side of the lane. Clicking on the lane letter can also mute the corresponding voice. [Option + Click] on the lane letter enables Solo Mode. If Solo Mode is enabled, [Option + Click] on any letter will disable Solo Mode.

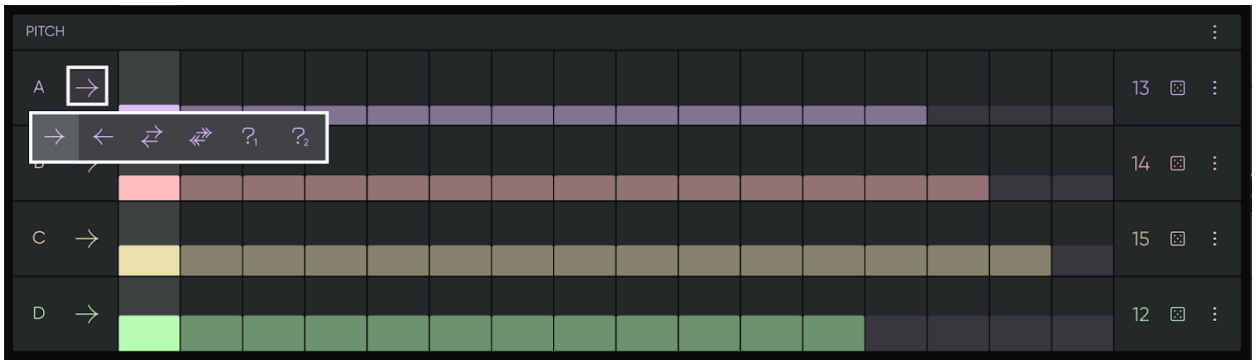
- **Shift + hover** → highlight and edit the entire column.
- **Shift + Command + hover** → highlight and edit the entire lane.
- **Option+ Click** → reset the cell to the value set in the lane menu.
- **Command + Click** → Fine tune the value in the cell. .

INDIVIDUAL LANE LENGTH



Each lane has a maximum of 16 steps. By reducing the amount of steps to the right of each lane it is possible to generate polyrhythms while melodies and correspondences shift, creating unexpected evolving patterns. You can achieve this by dragging the [Lane Length Cursor] triangle on the right side of each lane to the desired last step (Note that the triangle only appears when hovering on the lane). Alternatively you can change the amount of steps by dragging the [Lane Length Value] up and down.

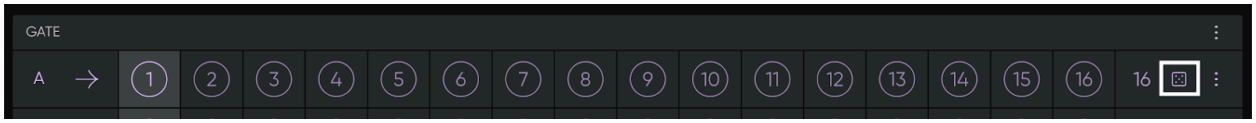
PLAY MODES



By clicking on the arrow next to the lane name, you can access the [Play Mode] Menu with the following available modes:

- **Forward** - The active step increases from step 1 to the highest active step and starts again according to the Advance Mode setting. (see Advance Mode below)
- **Backward** - The active step decreases from the highest active down to step 1 and starts again according to the Advance Mode setting.
- **Pendulum** - The active step increases and decreases starting from Step 1 to the highest active step without repeating the first and last steps.
- **Bi-Directional** -The active step increases and decreases starting from Step 1 to the highest active step repeating the first and last steps.
- **Random (Mode 1)** - The active step is randomly selected with a possible repetition of the last played step.
- **Random (Mode 2)** - The active step is randomly selected without repetition of the last played step possible

RANDOMIZATION



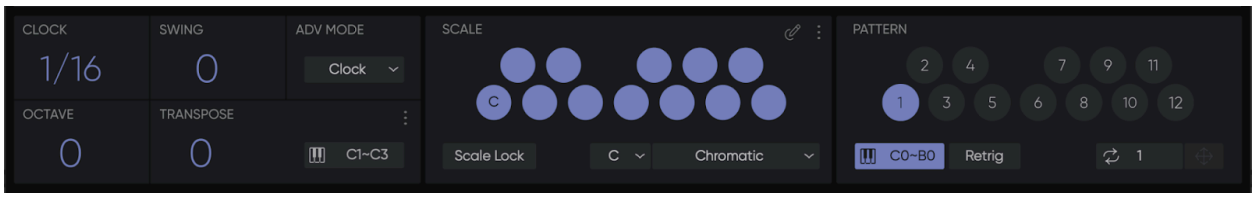
You can randomize values using the [Dice] on the right side of the lane, through the [Block Menu] or [Lane Menu]. Randomization and reset options are accessed by clicking the three dots next to the [Dice] to open the [Lane Menu], or by opening the [Block Menu] at the top right of each Block.

LANE MENU

The [Lane Menu] options vary slightly depending on each lane's function, but they all follow a similar framework.

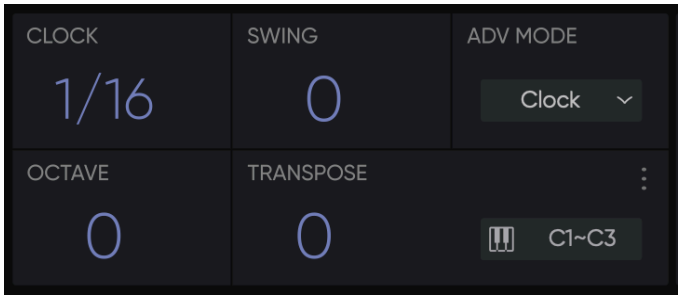
- **Nudge Steps** - You can nudge the active sequence left or right by one step by clicking on the [Nudge Steps] arrows.
- **Density** - Density is the chance a step will be altered when randomizing the lane. A higher value results in more steps being altered.
- **High/Low Values** - When available, high or low values represent the minimum and maximum value possible for any populated step. This way a range of action can be defined for the randomization.
- **Range** - When available in the menu, the range defined will not affect the pattern values that appear on the lane, but allows for real-time manipulation of the pattern's intensity, allowing for less extreme variation between each step. Inverting the effect of the lane step values is possible by swapping the minimum and maximum values. The conjunction of these two parameters allow to offset and attenuate or reverse the output of the lane.
- **Reset** - Reset will set each lane step to the 'Default Value'. Alternatively, you can reset each step individually by option+clicking on a single cell.

GLOBAL SETTINGS WINDOW



Located at the bottom of POLYLLOP, this window is divided into 3 different panels. A Global Settings Panel, a Scale Panel and a Pattern Panel. This window can be hidden or revealed by clicking on the [Global Settings Arrow] on the bottom left of the Plug-in.

GLOBAL PANEL



This is where you set the global values of POLYLLOP.

- **Clock Division** - By default set to 1/16, this value defines the rhythmical resolution per bar. A setting of 1/16 will divide the bar in sixteen steps.
- **Swing** - This allows you to add swing to your patterns, negative values are also possible in order to create uncommon grooves..
- **Advance Mode** - Three Advance modes are now available. Clock, Gate and MIDI mode define how the plugin increases its steps:

    - **Clock** - Each step will increase with the defined clock division.
    - **Gate** - In this mode, Each step will only increase by one increment as each Gate becomes active (lights up) in the Gate Lane.
    - **MIDI** - The GATE lane will become inactive and steps will only increase when POLYLLOP receives midi notes above C3 (starting from C#3) from your DAW or even in real time with your keyboard. This opens new ways of expression, allowing you total freedom on the rhythm possibilities. (New in version 1.5.6)

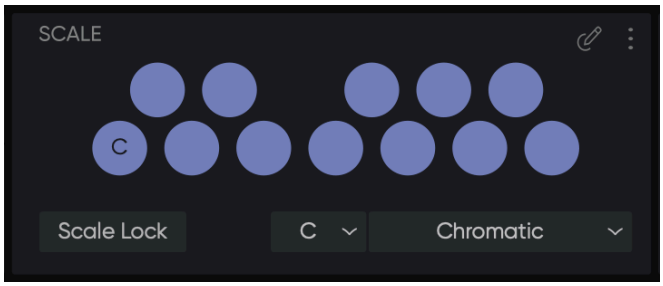
- **Octave** - Allows you to transpose your entire sequence by octaves.
- **Transpose** - Sets how far the sequence is shifted. Its behaviour depends on the [Scale Quantize] option chosen in the Transpose menu.

- **Transpose Menu** - Click the three dots at the top-left of the Transpose panel to open the menu. By default, [Scale Quantize] is on, so shifts are counted in scale degrees rather than semitones. For example, in C major a one-step transpose turns the triad C–E–G into D–F–A. When Scale Quantize is off, transposition is chromatic and notes can fall outside the chosen scale.
- **Transpose via MIDI** - Enable the keyboard icon in the Transpose panel to control transposition from a MIDI keyboard or clip.
  If [Scale Quantize] is on we have two options:

    - **Classic** – each semitone you play moves the pattern by one scale degree (C2 = degree 1, C#2 = degree 2, etc…).
    - **Scale Dependent** – only notes within the scale produce a shift (D2 = degree 2, E2 = degree 3, …).

  If [Scale Quantize] is off, incoming notes transpose the sequence by –12 to +12 semitones (C1 = –12, C3 = +12).

SCALE PANEL



Notes entered in the Pitch lanes are constrained to the selected key and scale —unless you pick **Chromatic Scale**, which leaves them unquantized. Choose a scale from the drop-down menus at the bottom of the Scale panel; the factory list mirrors Ableton Live and Push scales. To modify or create a scale, click [Scale Edit] in the panel's top-right corner.

You can access further scale functions by opening the [Scale Menu] at the top right of the panel, next to the [Scale Edit] button. You get access to classic management functions such as:

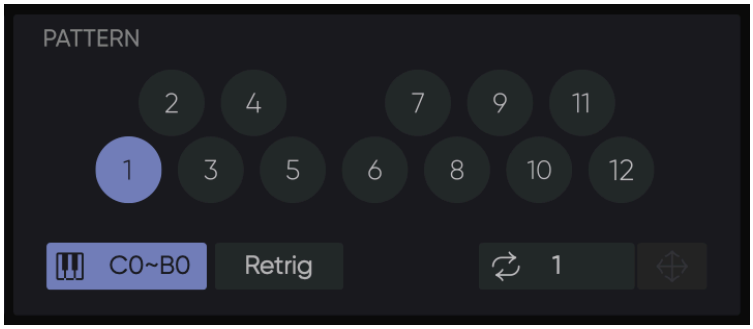
- **Save Scale** - Save the current scale without renaming provided it's not a 'factory scale preset'.
- **Save Scale as…** - Save a copy of the current scale under a new name in the User Scale folder.
- **Rename** - Rename your currently active User Scale.
- **Root Shift** - When engaged, this setting allows the root key change to act as a transpose when it makes the most sense with the active sequence. When disabled, a Root Key change will result in the notes adjusting to the closest value within the newly selected

Scale. In most cases it doesn't make any difference in your workflow, but we have set it to "ON" by default because it is the most expected behavior in a normal sequencer.

- **Initialize** - The scale setting goes back automatically to C Chromatic.
- **Open Scale Folder** - Allows you to Open your 'User Scale Folder' on your drive for quick file management.
- **Set Scale Folder** - Allows you to define a custom location of your 'User Scale Folder' on your Disk.

[Scale Lock] will force the current set scale to remain when switching between presets.

PATTERN PANEL



Each preset can hold 12 patterns, right-clicking on a pattern allows you to copy, paste or clear the Blockk.

Enabling the [MIDI Pattern Control C0-B0] allows for real-time switching via a MIDI keyboard. Patterns will shift seamlessly within the phrase, never losing the sequence position even with complex polyrhythms unless [Retrig] is enabled. Pressing C0 on your keyboard (or sending a C0 from a MIDI clip) will call Pattern 1, C#0 Pattern 2, D0 Pattern 3… etc…

Bottom left of the pattern panel is the sequence export feature in case your DAW can't record MIDI directly from POLYLLOP's MIDI output. First define the [Export Length] in bars, click on the [Generate] button on the left side of the [Export Length] value, and the [Drag] button will become active. Then simply drag and drop from POLYLLOP's [Drag] to your DAW MIDI Track *et voilà!* Your pattern data is exported.

TROUBLESHOOTING / KNOWN ISSUES AND FIXES

1- In some cases, some Windows users do not have access to the presets. It happens usually when the plug-in is not installed from the main user account. This issue but it has an easy fix. Open the menu next to the preset window and click on “set preset folder”. Then simply point towards:

“Documents > POLYLLOP” or “*Documents > 510k > POLYLLOP”*

2- Your AU does not appear in Ableton Live. This is normal and due to the fact Live does not recognise MIDI AU3 plug-ins. Therefore only the VST (recommended) or VST3 are available.

3- POLYLLOP randomly asks you for your serial key? This means you have not opened POLYLLOP in over 30 days and are currently disconnected from the internet. Simply close the plug-in, connect to the internet and open it again. You won’t even need to re-enter the serial.

4- Your serial key isn’t validating. Please check the following:

-Make sure you are connected to the internet when entering the serial key.
-Make sure you have copied the Serial Key without any extra space before or after.
-Make sure your serial key has not been pasted twice.

If none of these work for you, you might be out of available device authorisations. Please contact us at **contact@510k.de** and we will reset them for you.

5- You can’t save your user scales on a Mac in your preset folder. Please first erase your current user scale folder located here:

Macintosh HD > Library > Audio > Presets > POLYLLOP > User Scale Folder

Download the latest version POLYLLOP from the product page and reinstall the plug-in.

SUPPORT

If you need assistance, please email contact@510k.de, or visit http://510k.de and ask your questions to Bob, our trained AI Chatbot. Have Fun!