Polymerase M4L
Genetic MIDI Sequencer

OWNERS MANUAL

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ABOUT

Polymerase **M4L** is an inspirational **MIDI sequencer** powered by genetic algorithms. It generates **reproducible yet evolving** rhythmic and melodic patterns, offering a perfect blend of consistency and surprise. **Inspired by DNA manipulation**, this Max4Live device invites you to explore the intersection of algorithmic precision and human creativity, making it an essential tool for dynamic musical compositions.

Polymerase is all about **exploration**. With intuitive controls and a focus on experimentation, it encourages you to push creative boundaries and discover **unique patterns**. While inherently **repetitive by nature**, its evolving sequences add subtle **variation and depth** to your music.

Designed to integrate seamlessly with your workflow, Polymerase is best used before a Scale MIDI device for **harmonic output**, as it doesn't process scales directly. This allows you to craft **intricate, unbounded sequences** and then adapt them to fit your harmonic needs.

How it works: Polymerase transforms your input into an endlessly evolving sequence. Start by selecting a **Specimen**, which defines a genetic sequence composed of multiple genes. As the sequencer runs, this sequence is read continuously, generating note pitch, velocity, and duration based on the genetic data. The **Inhibitor** refines the output by reducing the number of generated notes while preserving the rhythmic structure. Adjustable **mutation strength** introduces random variations to the base sequence, ensuring that every playback cycle feels both familiar and fresh. With Polymerase, you control both stability and evolution in your musical patterns.

Visit phasenpunkt.de for more information, updates, and new projects, and start your journey into musical evolution today.
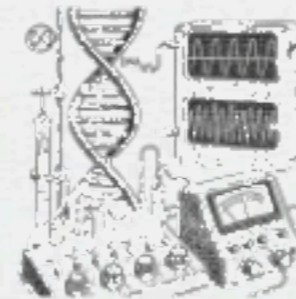

1. Select Specimen

2. Setup your Experiment

3. Run the Experiment

INSTALLATION

Prerequisites

- Ableton Live Suite 11.2 or higher

Installation Steps

- Download and Extract: Unzip the downloaded file to a location of your choice.

- Locate the Max4Live Device: In the extracted folder, find the file named "Polymerase.amxd".

- Install in Ableton Love:

  - Open Ableton Live.

  - In Ableton Live, navigate to the browser panel on the left side.

  - Drag and drop the "Polymerase.amxd" file into the "Max for Live" folder in the browser.

- Alternative Installation Method

  - Alternatively, copy the "Polymerase.amxd" file to your Ableton Live User Library:

    - On Windows: C:\Users\[YourUsername]\Documents\Ableton\User Library\Presets\Audio Effects\Max Audio Effect

    - On macOS: /Users/[YourUsername]/Music/Ableton/User Library/ Presets/Audio Effects/Max Audio Effect

- Use Polymerase

  - To use Polymerase, drag it from the Ableton browser onto a track in your Ableton Live Set.

- Access Manual

  - The detailed Owners Manual is included in the download as a PDF file.

  - Open this file for comprehensive information on using this device.

  - In addition open the info view in Ableton Live for a short description of each UI component.

QUICK START

1. Add Polymerase to Your Track: Drag and drop the Polymerase Max4Live device onto a MIDI track in Ableton Live.

2. Select a Specimen: Use the Specimen Selector to choose a genetic sequence. This defines the foundation for the rhythmic and melodic patterns.

3. Set Your Parameters: Adjust the Mutation Rate to control how much the sequence evolves over time. Fine-tune Inhibitor settings to filter out notes while maintaining the rhythm, and modify the Sequence Length for your desired loop size.

4. Route MIDI to an Instrument: Connect the MIDI output from Polymerase to a virtual instrument of your choice. For harmonic output, add a Scale MIDI device after Polymerase to constrain notes to a specific scale.

5. Press Play: Start playback in Ableton Live to hear the sequence evolve in real time. Adjust parameters on the fly to explore unique patterns and create dynamic compositions.

6. Experiment and Iterate: Try different specimens, parameters, and instruments to fully explore the creative possibilities of Polymerase.

PARAMETERS

Specimen

- **A.1, A.2, B.5:** Use these three controls to select a speciment to examine. Each combination of this parameters will have a unique result.

Experiment Setup

- **SEQ LENGTH:** Determines the length of the sequence, multiples of 8 produce more stable results.

- **INHIBITOR:** Controls the expression of genetic traits in the sequence. Notes below this threshold remain dormant, creating rests.

- **MUTATION RATE:** Sets the rate of random genetic mutations, driving innovation and unpredictability in the musical DNA (in beats).

- **DEPTH:** Determines the impact of genetic mutations, shaping how deeply they alter the sequence's structure.

- **"MUTATE" button:** Mutates sequence instantly.

- **"RESET" button:** Resets the DNA sequence.

- **RST PLAY:** Automatically resets the experiment when playback begins, preparing for a fresh start.

Note Generation

- **Note selectors:** Choose the lowest and highest possible note.

- **DURATION:** Determines note length, it's a percentile of the note

duration.

- **VOICES:** Number of voices.

- **Note Length Probabilty Matrix:** Determines probabilities for note lengths. And may result in a nice illustration.

SERVICE

Maintaining your device is as straightforward as dialing into a rotary phone: Just hop over to https://phasenpunkt.de whenever you remember it exists. With the luck of finding a working payphone in 2024, you might just catch an update — if the stars align and the internet gods are in a good mood.

Jokes aside, you'll receive an e-mail with a new download link whenever an update is released.

VERSION HISTORY

Version 1.0.0

- Initial release.

Polymerase M4L is a product of phasenpunkt,
crafted with love, code, and a touch of genetic mystic.

Visit us in the digital realm:

   https://phasenpunkt.de

Got questions, feednack or just found a glitch in the matrix?
Drop us a line:

   info@phasenpunkt.de

Polymerase M4L Version 1.0.0
Manual Version 1.0