

Waymaker

Aqeel Aadam Sound ^{User Manual}



Overview

Waymaker is a modular control ecosystem that allows you to build chains of sequencers, controllers, and utilities. You can think of it like a modular synth, a pedalboard, or an effects chain in a DAW — except everything is contained in one plugin.

With Waymaker's modules, you can create a customizable chain that produces unique, complex, and evolving musical patterns.

Waymaker is intended to be equally pleasing to the ears and the eyes. I hope you and your compositions enjoy it.

- Aqeel

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What is a sequencer?

A sequencer is an algorithmic way to program a melody (as opposed to playing it live or writing it out via a piano roll).

Critically, sequencers have steps. Each time you move the sequencer forward one step, something happens.

- A note might or might not occur (depending on whether the step contains musical data or a rest).
- The pitch of the note might or might not change.
- Various aspects of a note, such as velocity, might or might not change.

You can think of each step as a collection of musical data that will be executed when the sequencer reaches that step.

What is a sequencer? (cont.)

There are also different ways a sequencer can progress through its steps:

- It can progress based on musical increments (e.g., every 16th note).
- It can react to external events, such as listening to other MIDI notes.
- It can apply logic to how it progresses (e.g., there's a 50% chance of it progressing).

Combining sequencers

In formats like Eurorack, sequencers can interact with one another in unique and dynamic ways. Notably, you can use the output of one sequencer to influence another. Waymaker makes this possible in the software realm.

There are many possible ways for sequencers to interact:

- You could sum the outputs of two sequencers to get a combined melody, which creates interesting transpositions. (Keep in mind that the two sequencers don't need to progress in the same way.)
- A rhythm generated by one sequencer can be used to progress a second sequencer.
- You could use the rhythm of one sequencer to reset another to its first step.
- One sequence could trigger another (i.e., one sequencer could run only when it receives a note from another sequencer).

What is a MIDI effect?

A MIDI effect is an effect that inputs and outputs MIDI notes instead of audio.

This is not a common form of a plugin, and many DAWs handle this type of plugin differently.

- In some hosts, such as Logic or AUM (iOS), there is a distinct category for MIDI effects. These plugins are explicitly defined as not processing audio.
- In other hosts, such as Ableton Live or Bitwig, MIDI effects are more or less interchangeable with virtual instruments. However, rather than producing audio from MIDI input, MIDI effects produce or affect MIDI for other tools.

For instructions on loading in most major DAWs, see "MIDI mode".

About Waymaker

Waymaker can be a MIDI sequencer, MIDI effect, or control hub for other Aqeel Aadam Sound products. You can choose from a 11 different sequencers and sequencing utilities for a full customizable experience.

Waymaker itself also functions like a module in your DAW. You can send it whatever MIDI you want from whatever source (e.g., piano roll, live playing, another sequencer). In this sense, MIDI input to Waymaker is kind of an invisible first sequencer in the chain.

Waymaker has two overall modes: MIDI mode and AAS mode. When you first launch Waymaker, you'll be asked to choose one of these modes.

MIDI mode

In MIDI mode, Waymaker creates, manipulates, and outputs MIDI. You'll likely send this outputted MIDI into a virtual instrument to be played, but it can also be sent through other MIDI effects for even more transformation.

To use Waymaker in MIDI mode and sequence a virtual instrument, please find your DAW below or find your DAW's instructions if it isn't found below.

Ableton Live: Open Waymaker on its own instrument track, as if it were a virtual instrument. On a separate track, open the virtual instrument you'd like to sequence with Waymaker. Under "MIDI From", choose the channel that Waymaker is loaded onto with the first dropdown. In the second dropdown, select "Waymaker". Finally, set "Monitor" to "In" to stream MIDI from Waymaker. Please note that Ableton can only use MIDI plug-ins in VST3 format.

MIDI mode *(cont.)*

- Bitwig: On an instrument track, load Waymaker on a track first, as if it were a virtual instrument. Next, load a virtual instrument on the same track after Waymaker, in order to stream Waymaker's MIDI output to the virtual instrument.
- Logic Pro: Load an instrument channel, and open the "Mixer" view. On the instrument track, find the "MIDI FX" row in the mixer, directly above your virtual instrument's row in the mixer. Load Waymaker as a MIDI FX above your virtual instrument to stream MIDI from Waymaker to your instrument.
- AUM (iOS): Create a new MIDI channel in AUM, and load Waymaker onto it. Next, make a separate audio channel, and load a virtual instrument. Next to the virtual instrument is a three line hamburger icon. Tap this to assign MIDI input to the virtual instrument, and choose Waymaker as the MIDI source.

AAS mode

In AAS mode, Waymaker serves as an extended control interface for other Aqeel Aadam Sound (AAS) plugins.

Waymaker uses a unique protocol to find and connect to other AAS products. Accordingly, Waymaker and other AAS products don't need to be loaded on the same track in your DAW like a typical chain of effects. As long as they're loaded in the same project, they can find and connect to each other. This connection is saved as part of your DAW's project and will be initiated automatically when reopening a project.

Please note, Waymaker will still need to be loaded as a MIDI effect, even if you aren't using it for generating MIDI.

User interface - Initial screen



1. This is the list of the current Aqeel Aadam Sound products available to connect to. Waymaker will continually scan for other plug-ins while on this screen. The unique ID of each plug-in can be found in its respective settings menu. 2. This button lets you enter MIDI mode to use Waymaker exclusively as a MIDI sequencer.

User interface - Home page



- 1. This is the current sequencer. Click/tap this to enter the Sequencer Detail View (see below) and change the sequencer's configuration.
- These are the transport buttons. The sequence can be started, paused, or stopped from here. By default, Waymaker is synced to the transport of your DAW. When using a Step sequencer, you can additionally record notes into it by pressing the rightmost record button.
- 3. This is the connection indicator. This will display if Waymaker is outputting MIDI or if it is connected to another Aqeel Aadam Sound product (and if so, which).
- 4. This is the current scale. The output of all Waymaker sequencers will conform to this scale. Use the "Change" button to change the current scale.

User interface - Home page (cont.)



- 5. This is additional info about the current sequencer. In MIDI mode, this will show the sequencer's position in the chain of sequencing modules, as well as its function (Generate, Transpose, or Branch). To change or delete this sequence, use the "Change" button. To see or rearrange the entire chain of modules, use the "Rearrange" button.
- 6. This is a global sequence reset available in MIDI mode. The entire sequencing chain can be reset regularly, which may be preferable in some cases (e.g., a random/generative sequence that comes back to normal behavior every 4 bars).
- In MIDI mode, these are buttons for adding another sequencing module to the chain, or paging through the chain of sequencing modules (if applicable).
- 8. This is the button for opening the settings menu. The settings menu is covered in detail below.

User interface - Sequencer detail



- 1. These are the controls for configuring the current sequencer being edited.
- 2. In MIDI mode, this button shows you what mode the sequencer is currently running in. To change this mode and configure relevant settings for this mode, click this button to open a submenu.
- This button controls how and when a sequencer advances through its steps. Click on this button to change how the sequencer progresses through its steps and configure any relevant settings.
- 4. This button will let you change per-stage data for the sequencer, such as changing the velocity or length of each note.
- 5. This button will take you back to the home page.

User interface - Settings menu



- 1. This button will enter the presets menu for browsing stock and user presets.
- 2. This button will enter the parameters menu for configuring Waymaker's assignable parameters for automation or performance via MIDI controller.
- 3. These buttons can be used to undo or redo any changes made to Waymaker.
- 4. This changes which channel Waymaker will output MIDI on for Generate modules. Please note that many DAWs (such as Ableton Live) expect all virtual MIDI to be on channel 1, which is the default.
- 5. This changes how Waymaker reacts to your DAW's transport. By default, Waymaker will play when your DAW begins playback, and stop sequencers when your DAW pauses. Alternatively, Waymaker can pause sequencers (rather than stop and reset) sequencer, or simply ignore the DAW's transport.
- 6. Click this button to disconnect from MIDI or the currently connected client plug-in and return to the initial screen.

Sequencer modes

In MIDI mode, the way the sequencers interact with one another is defined by the modes of the sequencers.

Each sequencing module can operate in one of three modes: Generate, Transpose, or Branch.

In addition, there is the rhythmic sequencer Beat that only deals with rhythms rather than pitches. Accordingly, rather than transposing, it reorganizes the rhythms of incoming notes to change their timing. It's analogous mode is named Rearrange.

Generate (Sequencer mode)

In generate mode, the sequencer will produce new MIDI notes.

The note length and velocity can be set for each Generate module.

• Note lengths can be defined relative to the sequence speed (e.g., 50% of the sequencer's steps' duration), in seconds, in musical increments (e.g., one quarter note), or notes can mirror the length of incoming MIDI notes (when using a MIDI progression for the sequencer).

Each Generate module can allow incoming MIDI notes to freely pass through it, or remove and ignore them from the chain (this may be convenient if the sequencer is being progressed by MIDI notes).

Each Generate module can reset to its first step whenever a MIDI note is received.

Transpose (Sequencer mode)

In sequencer mode, the sequencer will change the pitch of MIDI notes that it receives.

Notes can be transposed by semitones (e.g., +5 semitones) or by scalar tones (e.g., +4th).

- A scalar tone refers to a tone within a given diatonic scale. One scalar tone higher than a given note will be the next note in the scale (for example, in C major, one tone higher than C would be D). This can also be presented in interval notation: a 2nd is one scalar tone higher, a 3rd is two scalar tones, etc.
- A semitone is the smallest interval available in the 12-tone scale. For example, one semitone higher than C would be C#, and three semitones lower than C would be A. Please note that Waymaker will quantize any transposition after changing the note, so using semitone transposition may not always output the expected note. For example, adding three semitones to C would yield a D# under normal circumstances, but if Waymaker's scale is set to C major, the output will be quantized to D or E.

Branch (Sequencer mode)

In Branch mode, the sequencer will play through its programmed sequence once whenever it receives a MIDI note.

Each Branch module can optionally keep or discard the incoming MIDI note which triggers a sequence.

Each Branch module can optionally transpose the programmed sequence based on the pitch of the incoming MIDI note, or play through the sequence with the same pitches each time.

The programmed sequence can optionally continue for only as long as the triggering note is held, or it can play through its entirety no matter what.

A probability can be set for the likelihood that a branching sequence will trigger or not.

Sequence progressions

Progressions are how a sequencer moves through its steps. Each sequencer can progress through its steps in a unique way. There are two primary ways to advance through a sequence:

Time interval: A sequence will automatically advance through its steps based on a given time interval. These intervals can be musical (e.g., a quarter note) or standard time (e.g., 3 seconds).

• Branching sequencers are always progressed using time intervals.

MIDI input: The sequencer will advance to the next step whenever a MIDI note is received. This can be used to sync a sequencer to its input and potentially advance a sequencer by a more interesting rhythm than a fixed time interval.

• In AAS mode, where multiple loopers are being sequenced at the same time, you can set a separate MIDI channel for each looper to respond to, effectively letting you sequence each looper independently.

Sequence progressions (cont.)

Additionally, when using Waymaker in AAS mode, there may be another progression style available. When controlling Weeping Wall and Ridgewalk, Waymaker can advance to the next step of its sequence when a loop finishes in the client plug-in.

Scales

The output of Waymaker's sequences will always be within a given scale.

In MIDI mode, there are three factors determining the scale:

- 1. The actual scale selected (e.g., major)
 - This can be a custom scale, or it can be turned off for full 12-tone output.
- 2. The root note of the given scale (e.g., C for C major)
- 3. The octave of the root note
 - When using a sequencer in Generate mode, the selected octave will affect the octave of the root note. For example, an octave of 4 will give a root note of C4.

Scales (cont.)

For AAS mode, scales work slightly differently.

When controlling another Aqeel Aadam Sound product, there is no root note, since the loopers have an inherent pitch (the pitch/speed they were recorded at). As a result, the scale controls what pitches a looper can be repitched to. For example, a scale here might be ± 0 , ± 5 , ± 7 , etc. These pitches are preserved as you repitch across octaves, as well. For example, if you repitch a loop to ± 7 , you will then be able to repitch it to ± 19 (an octave higher) and ± 5 (an octave lower).

Additional AAS mode settings

Waymaker provides additional looper control for Weeping Wall and Ridgewalk:

- Reverse: Waymaker can independently set each looper to forward or reverse. Leaving the looper as "auto" will follow the global reverse setting in Weeping Wall or Ridgewalk.
- Glide: Pitch changes in Weeping Wall or Ridgewalk can have a smooth glide of up to 5 seconds applied to them.

Sequencers - Step

Step is a traditional step sequencer of variable length. Each step has a unique pitch.

MIDI mode: If using a Generate or Branch sequencer, each step can be toggled on/off (effectively determining whether the step is a note or a rest). Additionally, each step can have a unique note length and velocity as well.

AAS mode: When controlling another AAS plugin, you can add an offset for each looper in the sequence to desynchronize loopers and try to ensure they each have unique pitches.

Sequencers - Morph

Morph is a step sequencer that changes over time, randomly replacing pitches after a certain number of loops. At its heart, this is sort of an automatic version of Step that can change slowly or dramatically. And similar to Step, each stage can be toggled on/off to make the step a note or a rest.

There are two unique controls for this sequencer: how many steps change at once and how often a change occurs. By default, a single step will be changed every time the sequence has been played through a single time. This creates a sequence that stays mostly recognizable but changes slowly over time. For more dramatic differences, more steps can be changed at once. For an even slower pace, changes can occur less often (e.g., every 2 or 4 loops).

There is also a range control for determining the possible range for pitches. This is defined by a lower and higher end. All random pitches are guaranteed to be within this range. Changing this will shift all existing notes to fit within the range.

Finally, each step can be locked to ensure that its value won't be randomly affected. This is helpful if you always want the sequence to start or end on the same note(s). Locked stages can also be set to a particular pitch as well. Changing the pitch of a stage will lock it by default.

Sequencers - Weight

Weight is a random-based sequencer for defining a set of pitches and the chance that each pitch occurs. The next pitch in the sequence will be randomly selected from the set of pitches based on the weighted probability that each can occur. You can think of Weight as a step sequencer with a random order where you can control the chance that each stage is selected.

This sequencer is good for defining a completely random melody or for transposing other sequencers in semi-predictable ways. For example, a simple usage of this sequencer in transpose mode is to randomly change the octaves of incoming notes.

Sequencers - Sum

Sum is an accumulating sequencer based around stages flipping on and off at independent rates. Each time the sequencer advances, stages might flip on/off. The resulting pitch of this sequencer is determined by summing the currently active stages.

The pitch of each stage is therefore not an actual pitched note but rather an amount that the output should be transposed by (e.g., +2 semitones). Summing the stages yields the output pitch relative to the root note of your sequence. For example, with a root note of D3 and active stages +2 and +3, the output will be +5 semitones higher for a result of G3.

The rate of each stage is the number of times the sequencer must be advanced before the stage flips on/off. For example, if a stage has a rate of 2, it will take two steps before the stage flips on/off. If the sequencer is progressing every 16th note, then it will take two 16th notes before the stage flips. If the sequencer progresses whenever a MIDI note is received, the stage will require two MIDI notes before it flips.

When this sequencer is reset, all stages will flip off, resulting in the root note.

Sequencers - Brownian

Brownian is a semi-random sequencer based on Brownian motion, which essentially means your melody has a chance to ascend or descend from the current pitch. Rather than producing a fully random melody, this sequence randomly will move to nearby notes. When reset, the sequence will return to the root note.

There is a single probability knob for determining the chance that the next note in the sequence will be higher or lower than the current note. In addition, the amounts that each note ascends and descends can be set. By default, the next pitch will be a 5th higher than the current note when ascending and a 2nd lower than the current note when descending. A sequence that simply meanders up and down the scale could be defined by an ascending and descending step of a 2nd each.

Sequencers - Brownian (cont.)

There is also a range control to determine how far the pitch can stray from the root note. In addition, there are two behaviors that the sequencer can use when the range is exceeded:

- Wrap: If the range is exceeded, the sequence will wrap back to the root note (effectively, the next note in the sequence will be the root).
- Cascade: If the range is exceeded, the sequence will cascade back to the root note by successively ascending/descending until it reaches the root note again.

Sequencers - Shift (AAS mode)

This is a very simple module for changing the pitch of each looper independently. The knobs from left to right assign a pitch to each active looper.

Sequencers - MIDI (AAS mode)

When connected to Weeping Wall or Ridgewalk, this module will transfer the MIDI input to Waymaker and change the pitch of Weeping Wall's and Ridgewalk's loopers accordingly. Effectively, this can let you play Weeping Wall and Ridgewalk or sequence their pitches in a completely custom way.

Utilities - Beat (MIDI mode)

Beat is a pitchless utility sequencer for defining a rhythm. This can be used to progress other sequencers or affect the rhythms of notes coming down the chain to this module. The sequencer can create Euclidean rhythms for a more algorithmic approach, or the rhythm can simply be defined by toggling notes in the sequence.

In generate mode, this sequencer simply outputs root notes according to the given rhythm. One could feed this into a subsequent generative sequencer which progresses every MIDI note in order to progress that sequencer in an interesting, rhythmic way.

Utilities - Beat (MIDI mode) *(cont.)*

In rearrange mode, this sequencer will affect the rhythms of incoming notes. The notes can be affected in the following way:

- Hold all: Any note received will be held until the next time there is an active stage in the rhythmic sequence. On the next active stage, any held notes will be released and played. This effectively quantizes the rhythm of the input to conform to the rhythm defined by this sequencer.
- Hold one: This functions identically to the above, but only one note will be held at a time. If multiple notes are received during inactive stages, the most recent note will replace any previous note. Effectively, this is a monophonic version of "Hold all."
- Mask: Incoming notes will only be allowed through if they occur during an active stage of the rhythm.

Utilities - Probability (MIDI mode)

Probability is a simple utility for giving each note a probability of passing through or being removed. At 100%, every note will pass through, and at 0%, all notes will be removed.

Utilities - Chord (MIDI mode)

Chord adds harmonies to each note received to create a chord from a single note. Up to 5 harmonies can be added to each note. The original note will remain unaffected.

Utilities - Channels (MIDI mode)

Channels is a utility for distributing notes to different MIDI channels based on a variety of logical options.

The methods for distribution are:

- Rotate: Each note will be sent to one of the given channels. The channels will be rotated through, so that each channel is guaranteed to be sent to regularly.
- Random: Each note will be sent to a random one of the given channels.
- Duplicate: Each note will be copied to each of the given channels in parallel, duplicating it to all channels.
- Shift register: Each note will cascade through the channels. When a note is received, it will be sent to the first channel. When another note is received, the original note will now shift down to the second channel while the new note will be sent to the first channel. This guarantees that each note will go to each channel, though not immediately.

Utilities - Channels (MIDI mode) *(cont.)*

NB: In Ableton Live, all internal MIDI sequences are expected to be on Channel 1. As a result, this Utility is unavailable when using Waymaker within Ableton Live.

Presets

Waymaker can save and restore state via presets. There are some helpful stock presets for getting you up and running, and you can easily make presets as well.

In AAS mode, Waymaker can also manage a connected AAS device's state as part of a preset. The configuration of a connected plug-in can optionally be stored as part of a preset and will then be restored when loading the preset.

Note that presets are dependent on the mode that Waymaker is running in and will only work for that particular mode. For example, you will not be able to use a preset you made in MIDI mode if Waymaker is in AAS mode.

To see your list of preset files (if you want to copy your presets to another computer), click "Open presets folder." Presets are stored with a file extension of .waymaker. To import preset files from somewhere else, use the button "Import presets" to find and select .waymaker files to be added to your user library.

Parameters

Waymaker offers 32 assignable parameters, which can manipulate any control in the plugin for things like control surfaces, automation, LFOs from your DAW, etc. There are also stock presets available that have most of the relevant controls of each sequencer pre-mapped to parameters (see presets named "Pre-assigned params").

Free trial

On desktop, there is a free trial available for all users. Waymaker will be fully functional for one week after initiating a trial. Afterward, a license key will be necessary to continue using the product. An internet connection is required to begin a trial.

Installation

macOS:

• Open the .pkg installer files and follow the provided instructions.

Windows:

- Use the provided Install_VST3.bat script to install to the proper location.
- If the scripts are unsuccessful, simply copy the .vst3 file to C:\Program Files\Common Files\VST3\.

After the above instructions, you will need to restart your DAW and/or re-scan for new plug-ins.

Compatibility

macOS 10.13 or later, Intel and Apple M1/M2 chips supported. VST3/AU format.

Windows 10 or later, 64-bit. VST3 format.

Waymaker requires an internet connection for initial authorization. Internet connection will not be necessary afterwards.

Support

For any support inquiries, please feel free to reach out via email.

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Uninstall locations

macOS:

- AU: Macintosh HD/Library/Audio/Plug-Ins/Components/
- VST3: Macintosh HD/Library/Audio/Plug-Ins/VST3/

Windows:

• VST3: C:\Program Files\Common Files\VST3\