MNDALA 2

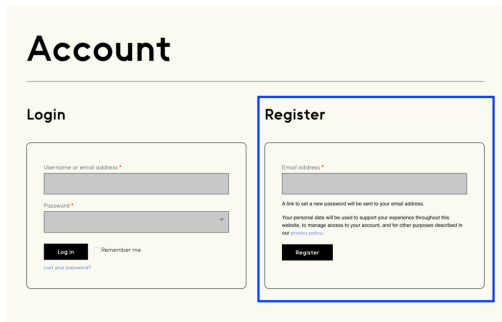## User Manual

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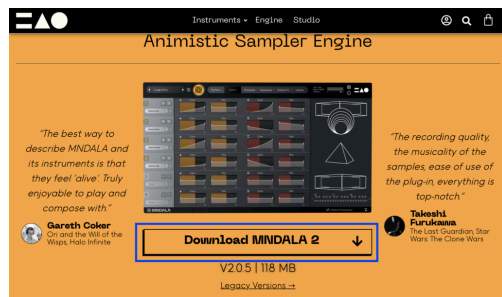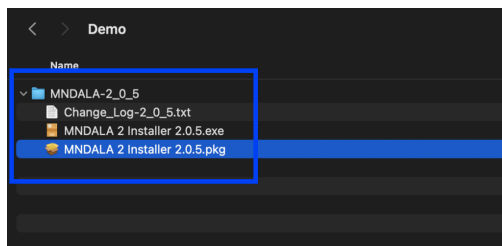# 1. Download and Installation of the Engine and the Instruments

Create a MNTRA Account:

Go to Account to create a new account if you don't already have one. Make sure to verify your email to activate and be able to log in to MNDALA 2.

Download MNDALA 2:

Download the MNDALA 2 VST3, AAX, AU plugin for free from our website.

Run the installer:

Run the MNDALA 2 installer for your operating system.

MNDALA 2 Instalation:
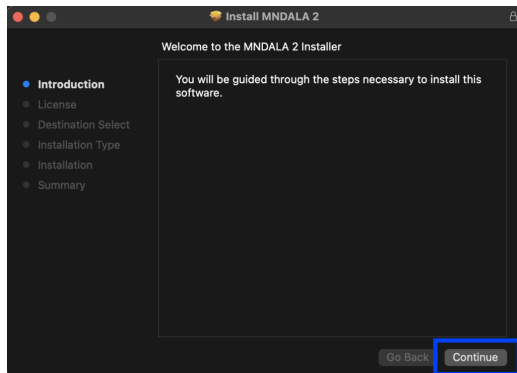
Continue through the installation process, we recommend leaving everything in its default location.

Open MNDALA 2 in your DAW of choice:
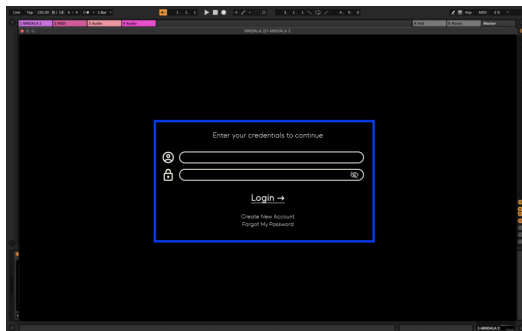
Upon first opening the Plugin you will be prompted to login to your MNTRA Account, or to create a new one.

MNDALA 2 is now ready to go:

The next steps is getting one of our instruments to use with MNDALA 2 engine.

Instruments Installation:

To use MNDALA 2 you will first have to buy one of our instruments, <u>or download one of our free instruments</u>.
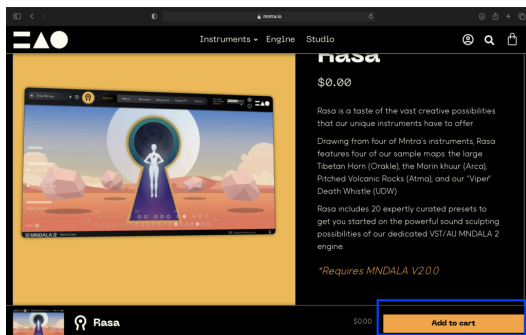
Instruments licenses can be acquired weather <u>through our website</u>, or one of our distributors (ie. Plugin Boutique).
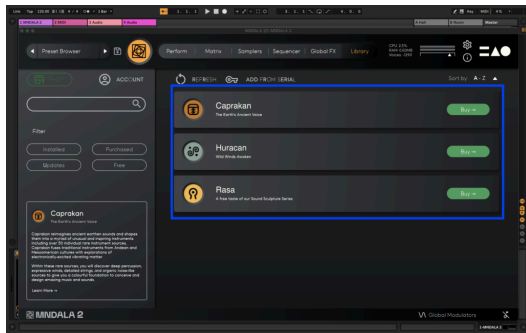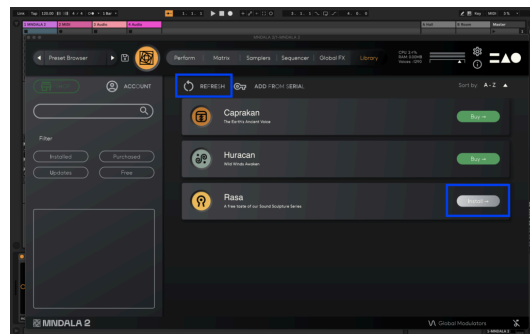
After purchasing a license for one of our instruments, it will be ready to install from the library tab from MNDALA.
If the instrument downloaded is not found, it is necessary to press the Refresh button.
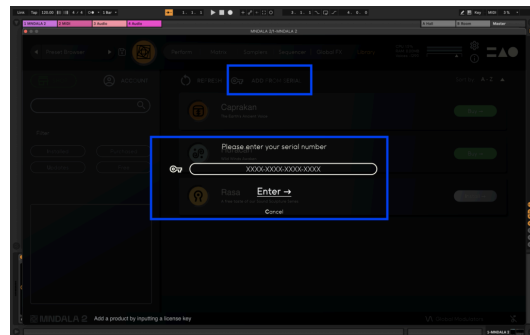
If you purchased an instrument from one of our distributors, simply press the Add From Serial button on the Library page and enter the license key. This will synchronize the product with your MNTRA account.
Once your license has been verified, press the Install button to begin installing your instrument.
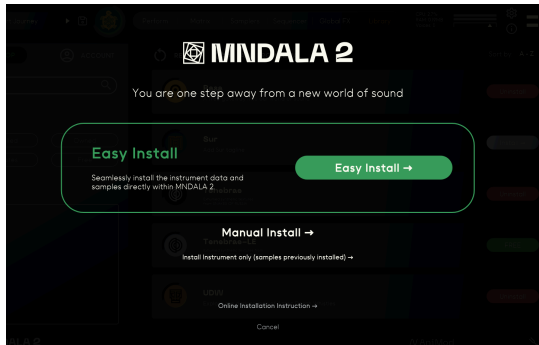
Easy Install starts downloading the samples needed to install the instrument.
The **manual install** is used when the samples have already been downloaded and saved and it is not necessary to start downloading from the server.
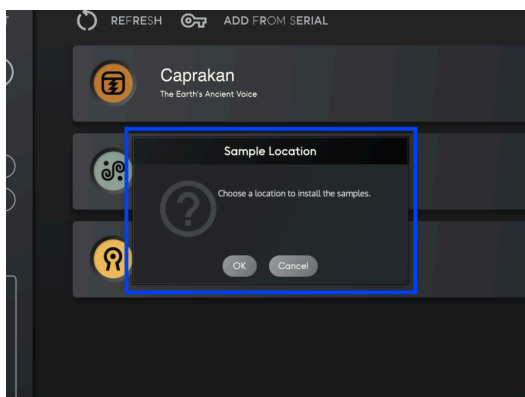
After pressing the Easy Install button, it will ask for a location to install the instrument's samples; we recommend a root folder where the samples won't be accidentally deleted, or a dedicated samples drive. Make sure you do not create a folder with the same name as the instrument, as the installer will create its own.
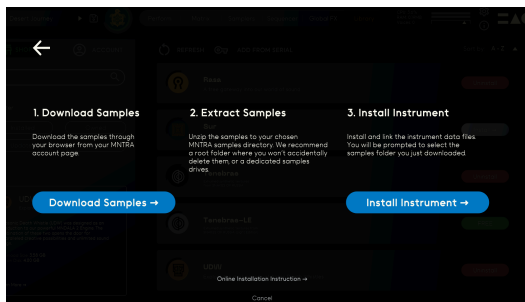
If choosing the manual installation option, it is important to follow the steps described; if the samples have already been downloaded and saved, proceed to step 2.

Uninstalling MNDALA 2

Delete any folder containing instrument expansions

PC:

"C:\Users\user\AppData\Roaming\MNTRA"
"C:\Program Files\MNTRA"
"C:\Program Files\Common Files\VST3"

Mac:

"Macintosh HD ▸ Library ▸ Audio ▸ Plug-Ins ▸ Components"
"Macintosh HD ▸ Library ▸ Audio ▸ Plug-Ins ▸ VST3"

2. Library View and Preset menu

The Library View is where the user logs in their account to see, manage, buy and download new Expansions, which contain an Instrument and the samples associated.

In the top left corner is the preset menu. It is accessible from every view in the Engine. The preset menu is where you can choose which Instrument you want to play (one per MNDALA instance), and which preset you want to use.

The user can create their own source, character and preset subfolders, with

The icons situated under each column. The user can change the location, create and delete any preset.

Factory presets for a given Instrument can be recovered by re-downloading the Instrument.
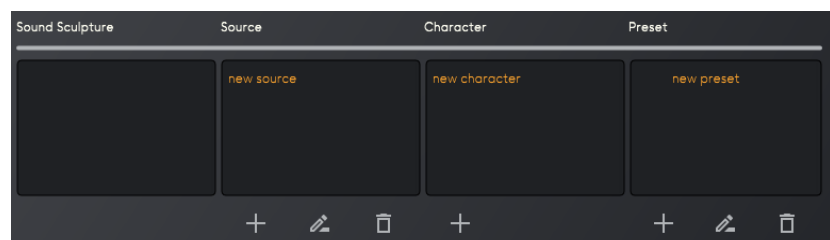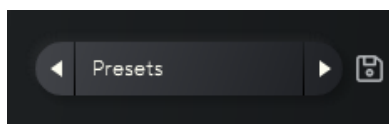
3. Perform View
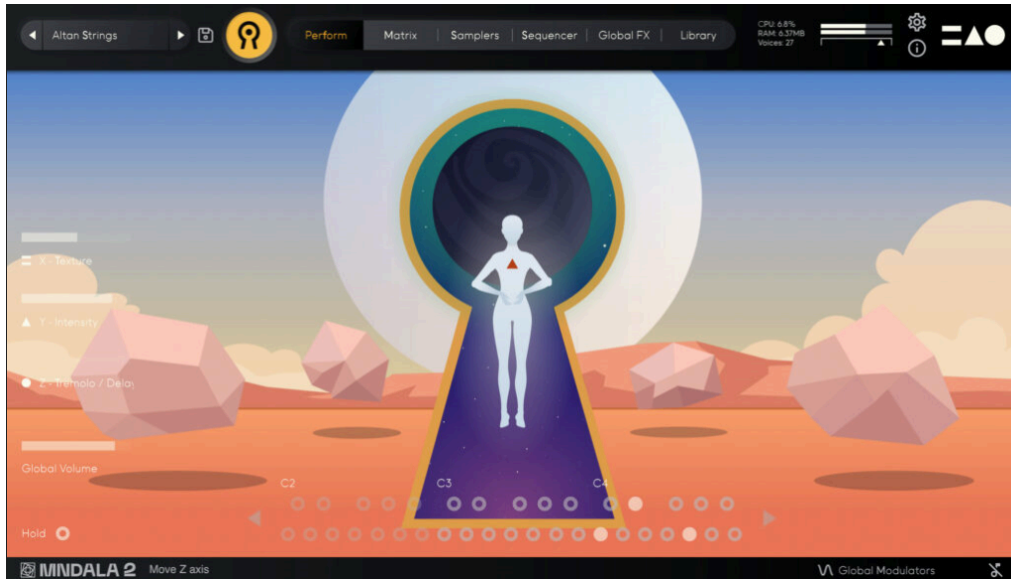
The Perform View is the visual representation of the X, Y and Z axes. Each Instrument has a unique Perform View animation. The three axes can be controlled with the mouse or with a MIDI controller.

Your MIDI controller's CC values can be configured by clicking on the MNTRA logo at the top right of the window. When opened, simply click the circle next to 'Learn' for MNDALA to MIDI learn a given axis.

Enabling the Global CC Settings will apply those MIDI settings to all presets, while enabling Freeze CC will make those MIDI settings unique to the selected preset.

The 'Hold' button, in the bottom left of the Perform view, is configured to the standard "sustain" MIDI controller message; CC 64. Therefore, the 'Hold' button can be activated via a sustain pedal, a MIDI controller with a knob/slider/button assigned to CC 64, or by clicking it. MNDALA's global volume can also be controlled in the bottom left of the window.

4. Matrix Page

The Matrix page contains two pairs of columns which represent volume and pan controls for the X and Y axes. In other words, each sampler has its own row which includes a gain and pan table controlled by the Y-axis, and a gain and pan table controlled by the X-axis. These tables are RTPCs (Real Time Parameter Controls) which represent the modulation of a given sampler's gain and/or pan according to the position of the X and Y axes.

These tables can be enlarged by clicking on the little square icon at the bottom right of each icon and include preset shapes along the top-bar. Curves can be made by clicking and dragging the middle mouse button.
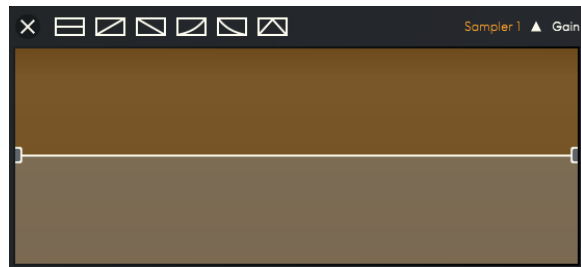
5. Sampler Page

MNDALA has six samplers, indicated on the far left column. Each sampler can be muted or soloed, and it can play a different Sample Map from the loaded Instrument. Clicking on the Sample Map's name will open a browser, where you can select Sample Maps and choose a dynamic articulation (if available for that Sample Map). Sample Maps with multiple dynamics will have an "All'' option, which loads all Sample Map dynamics and can be controlled with the Velocity Range table, as well as individual dynamic layers. Clicking on the eject icon will unload the Sample Map from its sampler.

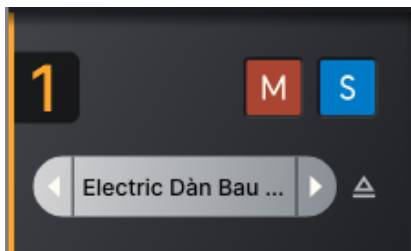Each sampler has a dedicated sampler page with AHDSR, coarse and fine tune, Vibrato, Portamento, Round Robin, and Velocity control. The RR lock slider allows the user to decide which Round Robin (a different performance/hit of the sample) they want the Engine to play. Setting the slider all the way to the left will have all of the round robins be available, with a randomly chosen round robin being played with each new trigger. If you set the 'RR Lock' in the Engine, to value 2, performance

number 2 of that given note will be triggered every time.

The Velocity Range table **only** works with Sample Maps with multiple dynamics (Pianissimo, Mezzo Forte, Forte). This table determines at what velocity each sample will play. For instance, if set to a linear ramp up shape, pressing really hard will cause the loudest dynamic (usually Forte) to trigger. The Velocity to Gain table works for all Sample Maps and acts as a gain modulator changing the output volume according to the received MIDI velocity information. If this table is set with a ramp up shape, the harder a MIDI key is hit, the louder a sample will be played. By simply inverting the ramp of one table, you could have the pianissimo sample be the loudest one.

Each sampler also has a Portamento and Vibrato control. The Vibrato can be controlled by using one of the two Global Modulator LFOs (bottom right corner) and has a range of +/- 2 semitones. The Portamento can be linked across all samplers with the link button.

The AHDSRs (Attack - Hold - Decay - Sustain - Release) can be linked so that the displayed envelope values for the selected sampler are copied over to all other samplers. The One-Shot icon will ignore the sampler's release time, triggering the whole sample, and the note-off icon will play the sample upon triggering a midi note-off

message (pressing the key and then letting go), using the release section to set its decay.

The Multi Mic Mixer page can be opened by clicking the button to the right of the sampler volume knob.

A Sample Map can contain up to 4 mic positions (ex. Close, Far, Resonance). The gain of each channel can be controlled by the X, Y or Z axes or by the Global Modulators. The panning is controlled by the Pan knob.

Generator:
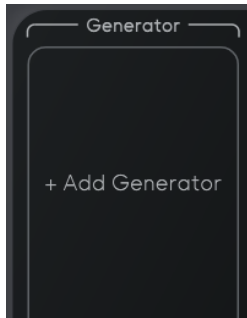
A soundwave generator can be assigned to any sampler, even if no sample is loaded. This serves as a sound source and adds textures and harmonics to the preset.

Additive Synth
Simple additive synthesizer with up to 12 partials, sine, triangle, saw, and square waveform selection, and adjustable envelope. Perfect for creating rich, complex pads

FM Synth
Simple FM synthesizer with modulation oscillator amount and pitch control, selectable sine/triangle waveshape, and envelope control.

Simple Synth
Simple polyphonic single oscillator VA synth with sine, triangle, saw, square and noise waveshapes

Effects

Each sampler can have a maximum of up to 5 effects in series (three stereo effects, one polyphonic effect (effects that are tied to the notes being played, like a key tracking filter) and one sound generator). The dry/wet of these effects can be controlled by the X,Y or Z axes by clicking on their icons on the bottom left of each effect slot. Each effect has a maximum of 3 parameters, and 2 toggle buttons, descriptions as well as general CPU load rating can be found in the effect browser. Each effect also has a volume in and out control.

6. Sequencers

Each sampler has its own Sequencer. The Sequencer's toggle on/off button is found at the top right of the Sequencer page. Like the sampler's parameters, the Sequencers can also be linked by pressing the Link button to the right of the Sequencer's toggle button. When activated, the Velocity, Note and Length parameters of the Sequencer will be copied over to the other Sequencers, even if they are not activated. The other Sequencers won't be activated and the 'Speed', 'Num Steps' and 'Stride' parameters won't be affected. Each Sequencer offers control over speed (tempo-synced), Steps, Shuffle and Stride (stride defines the number of sequencer steps that are between this note and the next ⇒ if you set 'Stride' to 2, the sequencer will play every other note, 1 will play every sequencer note) Individual step notes, velocity and length can also be set by the user, or be randomized or reset with the buttons to the right of their respective tables.

7. Global FX

The Global effects (Colours) section behaves in a similar way to the sampler effects. The Global FX section has 5 stereo effects. Individual parameters of a selected effect can be controlled using the three top most tables by using the Z axis.

8. AniMod Modulation System

AniMod is MNDALA 2's deep modulation system. It can be opened by pressing the AniMod icon in the bottom right corner of MNDALA 2's interface. Inspired by the concept of animism and incorporating insights from game audio middleware, AniMod facilitates advanced sound modulation by exploring integrated non-linear control, and 3D modulation.

AniMod features six modulation operators, each with the same selection of Shapes:Sine, Triangle, Square, Random, Custom and Stepped.

Shape

The Shape section has controls for selecting the modulator type (Sine, Triangle, Square, Random, Custom and Stepped), a waveform viewer that doubles as the custom waveform and step editor, adjustable smoothing, fade-in control (only functional when Retrigger is active, phase offset control, and toggles to turn on Retriggering and Legato-style retriggering of the modulation wave.

With the Custom waveform selected, users can draw points on the viewer to define their desired waveshape. By two-finger scrolling on a trackpad or using the middle mouse wheel you may curve the segments.
The Stepped modulation mode serves as a parameter step sequencer, where the amount of steps and each step's value can be set. Use it for rhythmic modulation or play with adding smoothing to create a fluid waveform.

The Retrigger toggle makes the modulator waveform restart for every key press. You can use it to create pseudo envelopes. By enabling the Legato toggle, chained notes are ignored with only the first triggering the reset. Adjust the Fade-in parameter to set how long it takes after pressing a note for the modulation to come in.

Speed and Intensity:

AniMod provides full control over the speed and intensity of each modulator. Using the clock icon you can choose between either free-running from 0.01 Hz to 20 Hz or synchronization to the BPM of your Digital Audio Workstation (DAW). Your settings can be monitored in real-time through the waveform viewer.
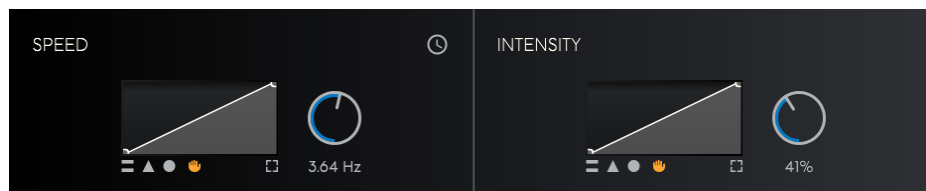
Three-Dimensional Modulation:

Speed and Intensity modulators can be linked to the X, Y, and Z axes (shape icons below the table). This makes it easy to create intricate, organic modulations that evolve, as the preset control is dynamically integrated with the axes. With axis modulation selected the control knob sets the maximum and the table shape sets the travel of the modulation. Experiment with non-linear shapes!

The integration of speed and intensity with the axis controls enables modulation control directly from the Perform View, the front-end animated scene. This allows visual modulation adjustment along with other parameters within MNDALA 2, creating an integrated ecosystem of control.

Paths:

This section provides detailed assignment information for each modulator, indicating the parameter modulated (including the sampler number if applicable), including the Global FX section, FX Dry/Wet Mixes, and the Multi-Mic Mixer.

To activate the modulator and apply automation to a specific parameter, it is important to turn on and configure the modulator of interest, and then select the modulator number in the mapping table to proceed to its selection.
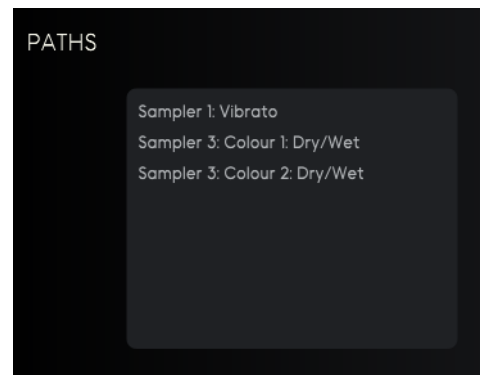
Metering:

Visual display of modulator speed and intensity, enabled when the modulator is on.

Depending on the position of the shape, velocity and intensity parameters, the dynamic display changes between 6 different shapes modeled in real time.
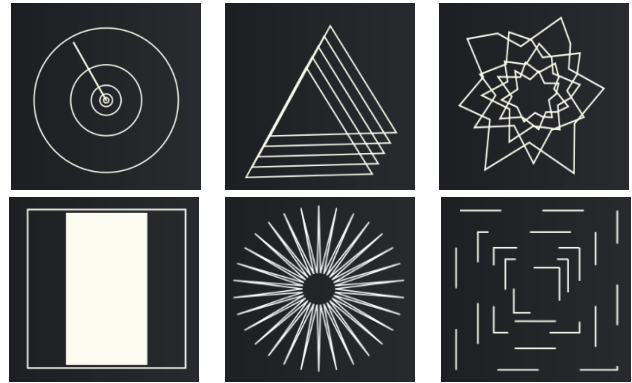
Expressive Vibrato Control:

AniMod seamlessly links to each sampler's vibrato (pitch modulation), providing extended control over vibrato intensity and frequency. This integration allows the creation of distinctive and expressive vibratos. Adjustments to Random Waveform Smoothing introduce subtle pitch fluctuations, enhancing expressive subtlety and introducing nuanced pitch movement.

9. Tuning System
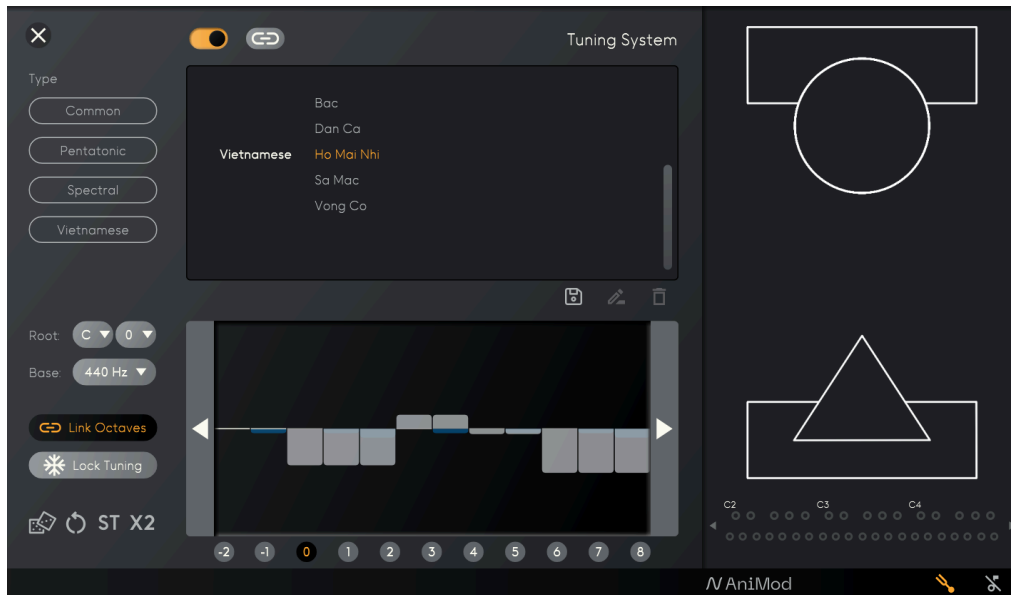
Each sampler has its own tuning system. The toggle on/off button is located at the top right of the Tuning System page. Like the sampler's parameters, the Tuning System can be linked by pressing the Link button to the right of the Toggle button. When active, it is possible to create your own tuning systems by modifying each note of the tempered system by semitones or hundredths of a semitone, by default the semitones are modified and a white color is set, to modify by hundredths of a semitone it is important to activate the ST option and this will be reflected in blue.

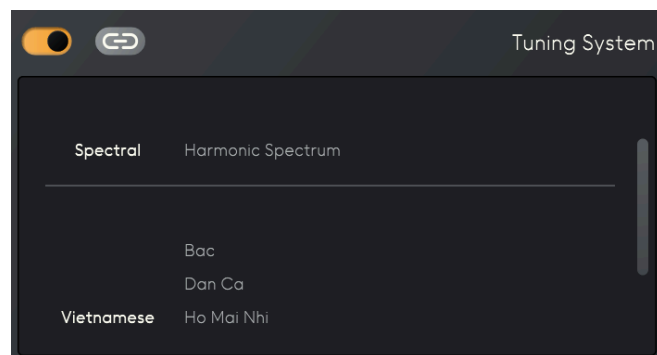The tuning systems pre-installed in MNDALA 2 can also be selected:

Common:
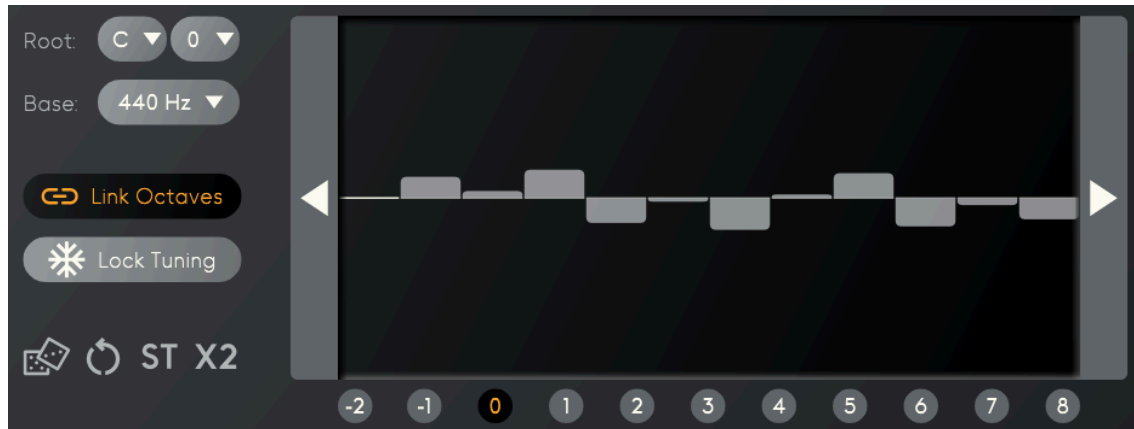- Equal Temperament
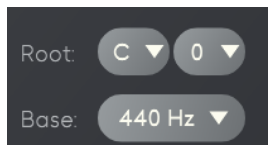- Just Temperament

Spectral:
- Harmonic Spectrum

Vietnamese:
- Bac
- Don Ca
- Ho Mai Nhi
- Sa Mac
- Vong Co

The tuning system can be manipulated manually by raising each of the steps, the modified information will be displayed in the top right of the tuning box. Move through each of the octaves by selecting a number according to the desired pitch or by using the right/left arrows.

Root: Select the root or beginning of the tempered scale.
Base: Selecting the tempered tuning in Hertz.

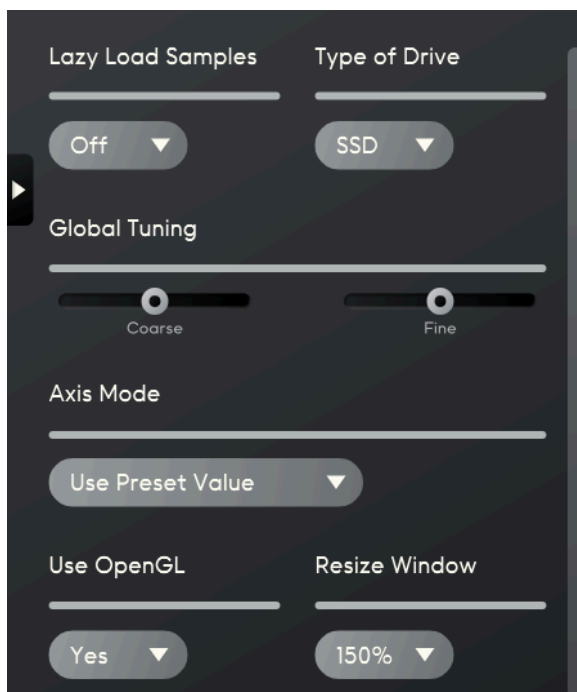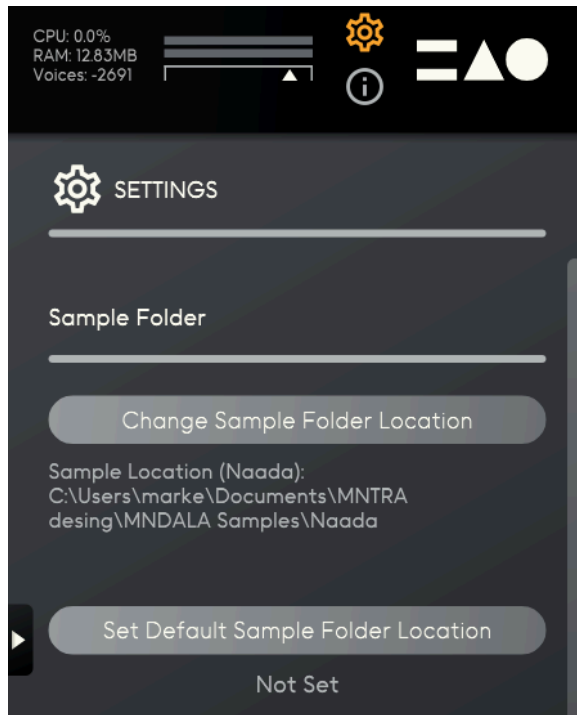Randomize tuning or reset tuning to equal temper.

ST: Switch in between coarse and fine tuning (semitones or cents).
X2: Switch in between one and two octaves view.

10. Settings

MNDALA's settings can be accessed by clicking on the Gear icon in the top right corner of the Engine window.

Sample Folder

In this tab the current instrument's sample folder can be relocated. If your samples are stored on an external drive, you can configure your sample directory accordingly by choosing HDD or SSD storing. The Global Fine and Coarse tuning affects all samplers, working on the triggered MIDI notes.

Lazy Load Samples

When turned on, samples will only been loaded on the RAM when they are needed.

Type of drive

Select the type of storage for the samples, SSD for fast reads or HDD for slow reads.

Global Tuning

Select the global tuning by varying by semitones using **Coarse** or by tones changing **Fine**.

Axis Mode

Use Preset Value: The value of the axes will not change when loading a preset.
Lock Across Presets: MNDALA 2 will use the presets embedded axis values.