



ADMIRALIZOR

Wavetable Multi Operator Synthesizer



Manual

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Introduction

Admiralizer combines two synchronizable wavetable, sub and sample hold/track noise synthesizers with the flexibility and brilliance of a multi operator AM / RM / FM and PM cross synthesizer. The flexible 2D/3D real time wavetable editor comes with different morphing types, harmonic editing and a waveform generator. Import custom waveforms by use of different resynthesis types or design/draw/generate something completely new.

Admiralizer is aliasing free where necessary and allows up to 8x oversampling for high SNRs. Analogue sounding and routable resonance filters including shelving filters and key follow complete the clearness of the digital synthesizers. The crystal clear multi operator algorithm synthesizer includes feedback and cross modulation and can be globally and partly mixed to the sound.

Pulse width, amplitude, ring, real phase and 4 types of frequency modulations are included. On board is a step sequencer and arpeggiator with different pattern lengths, swing, tie and key substitution. The unison feature layers many slightly detuned waveforms to make sounds fat and wide. It's up to you how to mix the unison voices and how much these are detuned and spreaded.

The massive and „scroll less“ FX section contains dynamics (including compressor, expander, limiter and gate), tremolo, pre eq, overdrive, distortion, post eq, vibrato, phaser, flanger, chorus, delay, reverb, equalizer, filter and limiter. Admiralizer contains many modulation sources (e.g. macros, LFOs featuring on/off triggering/delay/bpm, envelopes, two flexible chaos modulators) and hundreds of (aux) modulation parameters with adjustable polarity and transposition.

A flexible preset manager including quick presets, A/B comparison, multi filtering and text search is in-built. Resizable UI, multi step undo/redo, MPE support, key hold, gain protection, auto off and the customizable RMS meter are more than nice-to-have features.

Features

- **Double aliasing free wavetable synthesizer with unison and two sub & noise oscillators**
- **Flexible 2D/3D wavetable editor with different morphing types, harmonic editing & generator**
- **Additional 8 Operator AM, RM, FM and PM synthesizer with feedback & cross modulation**
- **Wavetable modifications including PWM**
- **Routable resonance filters and many types including shelving filters and key follow**
- **LFOs featuring on/off triggering, delay and bpm**
- **Cross sync, sample & hold and track**
- **Step sequencer and arpeggiator with different pattern lengths, swing, tie & key substitution**
- **FX section with dynamics, tremolo, pre eq, overdrive, distortion, post eq, vibrato, phaser, flanger, chorus, delay, reverb, equalizer, filter and limiter**
- **Presets, patterns and LFOs included**

- **Extensive preset manager including quick presets and A/B comparison featuring filtering and text search**
- **Two flexible chaos modulators**
- **Hundreds of modulations parameters**
- **Modulation matrix with aux parameters, inversion, transposition**
- **Gain protection & auto off**
- **MPE support, key hold**
- **Multi step undo/redo**
- **Freely resizable GUI from very small up to Ultra-HD & 5K Retina**
- **No dongle required (except AAX)**
- **Supports x64 Windows 10 – 11 VST® 2/3, AAX (ProTools Native)**
- **Supports x64 macOS 10.11 – 12 VST® 2/3, AU, AAX (ProTools Native)**
- **Supports 16-32 bits sample resolution @ 44.1–192 kHz sample rate**
- **System requirements: Minimal 2 GB RAM & C2D 2.66 Ghz, 4 GB RAM & i5 and better recommended for polyphonic and more complex settings**

Demo version limitations

The demo version is time limited to 20 min usage per session, introduces a 2 second audio gap every 30 seconds and is limited to 1 instance per session. Wavetable files can't be saved.

Software installation

Mac

Mount and open .dmg and drag the desired package, the manual and the app data to the right folder. The AU version of the plug-in is named “component”.

Windows

Run the installer and follow the steps. Your DAW host software should find the plugin automatically or let the host rescan your plugins. Or install the files from the zip archive to your system manually.

License installation

The plug-in automatically searches for the license file at program start. The license that you will receive when you purchase the Pro version has to be simply installed to one of the following directories of your system drive(!).

Mac

/Library/Audio/Plug-Ins/VST

/Library/Audio/Plug-Ins/VST3

/Library/Audio/Plug-Ins/Components

/Library/Application Support/Avid/Audio/Plug-Ins

Windows

The first item is the environment variable (if set on your system). Please remember that 32 bit executables just see 32 bit folders (X86).

PROGRAMFILES → Subfolder Admiralizer

PROGRAMFILES(X86) → Subfolder Admiralizer

VST_PATH

VST_32_PATH

VST_64_PATH

VST3_PATH

VST3_32_PATH

VST3_64_PATH

PROGRAMFILES → Subfolder Vstplugins

PROGRAMFILES(X86) → Subfolder Vstplugins

PROGRAMFILES → Subfolder Steinberg\Vstplugins

PROGRAMFILES(X86) → Subfolder Steinberg\Vstplugins

COMMONPROGRAMFILES → Subfolder VST3

COMMONPROGRAMFILES(X86) → Subfolder VST3

COMMONPROGRAMFILES → Subfolder Avid\Audio\Plug-Ins

Example:

If your System drive is C and you didn't move your Program Files folder to an other location than the standard folder, then one possible path would be: C:\Program Files\Steinberg\VstPlugins

Mouse Handling

General mouse handling

Hovering the mouse cursor over controls shows the tool tips. Left click and dragging controls changes the values. Additionally holding down the shift key when changing values activates the fine tuning mode. Double left click resets a control value to the default.

Right mouse click on controls shows the popup menu from the parameter/host or enables direct value input (depending on the parameter). STRG / CMD with double left click also enables the direct value input.

Wavetable, spectrum, envelopes, LFOs

Left click and dragging LFO points or envelope intermediate points changes the position of these. Double click on these centers them. Double click at the LFO display adds a LFO point at this position. Right click at LFO points deletes them.

In the 2D wavetable, spectrum, envelope or LFO display use your mouse wheel to zoom exactly in/out the display at the current mouse position. Right click and dragging shifts the zoomed display to the left or right.

STRG / CMD, left click and dragging the envelope or LFO display marks an area to zoom in. Left click and dragging the spectrum display marks an area to zoom in.

Left click and dragging the 2D wavetable display draws waveforms while doing this at the 3D wavetable display changes the wavetable position. Right click and dragging the 3D wavetable display rotates the view.

Modulations

Modulations can be easily created by drag'n'drop a small modulation bar at the right of modulatable controls to the envelope/LFO header or display. Or you drag'n'drop the envelope / LFO header or display to a small modulation bar. The AM-RM-FM-PM and FX pages also contain the headers to create modulations there. Double click small modulation bars deletes this modulation. Mouse wheel movements at small modulation bars change the level of this modulation.

Keyboard shortcuts

Admiralizer comes with some keyboard shortcuts and it is necessary that your DAW reports the keyboard inputs to the plug-in. Some DAWs don't do this or at least have an option to activate it. Some DAWs implement a buggy plug-in format keyboard handling. In this case try to activate the alternative keyboard handling (AKH) by double clicking the title bar with the license/tempo information, that could fix it for these DAWs.

The settings tab has its own theme keyboard input scheme.

ESC	Closes the dialog under the mouse pointer (e.g. preset manager)
Enter	Accepts the chosen dialog option and closes the dialog
H	Turns the tool tip help off/on
M	Hides/shows the RMS meter
U	Undo
R	Redo

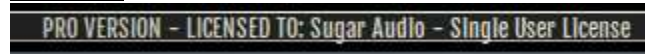
User Interface



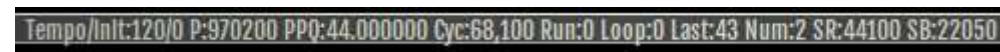
Questionmark

Shows this help file (if it is installed correctly).

Title line



***Hint:** When you move the mouse pointer over the license information line, the line changes to an information line containing information about the current host tempo, run & loop state, sample rate and samples per beat.*



Undo last action(s).

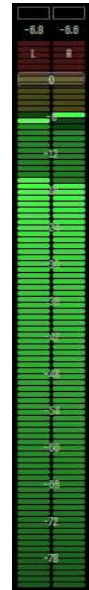
Undoes the last up to 25 changes

Redo next action(s).

Redoes the undone changes.

RMS, peak, peak hold meter & gain controller

Shows the different levels and applies the chosen output gain. The gain knob will be automatically colored red and lowered if the gain protection is active.



Main tab



Choose the main tab function here.

Oscillators 1 + 2

This section controls the two wavetable, sub and noise oscillators, sets volumes and pannings, adjusts unison/modification parameters and allows to tweak the tuning of the oscillators.



Oscillator on/off

Switches the wavetable oscillator on/off.

Oscillator volume

Changes the volume of the oscillator.

Oscillator panning

Changes the panning of the oscillator.

Oscillator phase

Changes the phase of the oscillator.

Oscillator random phase

Changes the phase randomness of the oscillator.

Oscillator unison voices

Changes the number of unison voices of the oscillator. Caution: high values use much CPU power!

Oscillator unison voices spreading (width)

Changes the unison voices stereo spreading/width of the oscillator.

Oscillator unison voices detuning

Changes the unison voices detuning of the oscillator.

Oscillator unison voices mixing

Changes the mixing between the additional unison voices and the original waveform of the oscillator.



Oscillator unison voices wavetable width

Changes the unison voices wavetable distribution width of the oscillator.

Oscillator wavetable modification type

Changes the wavetable modification type of the oscillator. These are NONE, STRETCH, SQUEEZE, LEFT, RIGHT and L/R (PWM).

Oscillator sync (oscillator 2 only)

SYNC1 synchronizes the current oscillator to the first oscillator, the resulting waveform will always be in tune with the other one - regardless of the pitch.

Example:

- Activate both wavetable oscillators
- Activate oscillator 2 sync
- Modify the coarse tuning of oscillator 2 and recognize the change in timbre of the sound without being detuned

Oscillator wavetable modification amount

Changes the wavetable modification amount of the oscillator.

Oscillator wavetable position

Changes the wavetable position of the oscillator.

Oscillator chaos amount

Adjusts the oscillator frequency chaos amount for all unison voices. The chaos modulator at the EXTRAS page has to be activated.



Oscillator sub on/off

Switches the sub oscillator on/off.

Oscillator sub volume

Changes the volume of the sub oscillator.

Oscillator sub panning

Changes the panning of the sub oscillator.

Oscillator sub phase

Changes the phase of the sub oscillator.

Oscillator sub octave

Changes the octave of the sub oscillator.

Oscillator sub waveform type

Changes the waveform type of the sub oscillator.

Oscillator sub FX on/off

Switches the effects for the sub oscillator on/off.

Oscillator sub sync (oscillator 2 only)

SYNC1 synchronizes the current sub oscillator to the first sub oscillator, the resulting waveform will always be in tune with the other one - regardless of the pitch.



Oscillator noise on/off

Switches the noise oscillator on/off.

Oscillator noise volume

Changes the volume of the noise oscillator.

Oscillator noise panning

Changes the panning of the noise oscillator.

Oscillator noise type

Changes the type of the noise oscillator.

Oscillator sample and hold

Changes the sample and hold type of the noise oscillator.

SnH = new noise sample only if received SnH modulation changes from negative to positive value

Track = new noise sample only if received SnH modulation has a positive value.

Useful for noise output modulations.

Example:

- Activate the noise oscillator
- Set the noise volume to zero (we just use the oscillator as modulator)
- Set it to SnH
- At the modulation matrix assign a triangle LFO to the Osc 1 Noise SnH parameter
- Set this modulation to the polarity "BI", we need positive and negative values
- Add a second modulation and assign Noise Osc1 to e.g. a Flt Frequency
- Now the frequency is modulated by the noise value while the LFO crosses the middle



Oscillator octave

Changes the octave of the oscillator including sub.

Oscillator semi tone

Changes the semi tone offset of the oscillator including sub.

Oscillator coarse tuning

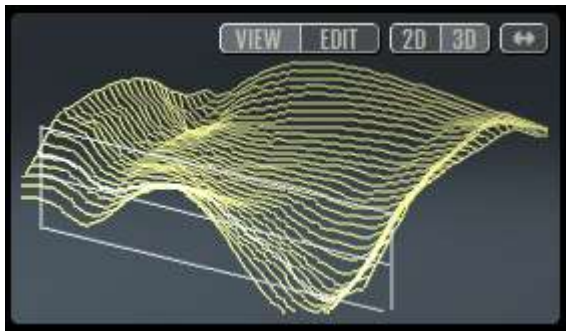
Changes the coarse tuning of the oscillator including sub.

Oscillator fine tuning

Changes the fine tuning of the oscillator including sub.

Wavetables

The wavetable with its up to 256 single waveforms defines the harmonic content and timbre of the wavetable oscillators within a single cycle of the waveform. Modulators can change the wavetable position or the modification amount. Each of the the waveforms can be edited, imported, morphed or generated.



View/edit wavetable

Switches between wavetable view and edit mode (see “Wavetable editor”).

2d/3d view

Switches between 2d/3d wavetable view.

Maximize/minimize view

Switches between maximized and minimized view.

Filters

Filters cut from or add content to the harmonic spectrum of the sound. Resonance (quality) creates interesting effects at defined frequencies. Filter parameters are very often modulated by different modulation sources. Filters can be enabled on the basis of oscillators.



Filter tab

Choose the current filter.

Maximize/minimize view

Switches between maximized and minimized view.

Filter on/off

Switches the current filter on/off.

Filter type

Chooses between predefined filter types:

LOW CUT 12, 24 & 36
HIGH CUT 12, 24 & 36
BAND PASS 12, 24 & 36
LOW SHELF
HIGH SHELF
BAND
PEAK
NOTCH
ALL PASS

Filter frequency

Adjusts the filter frequency.

Filter quality/resonance

Adjusts the filter quality/resonance.

Filter gain

Adjusts the filter gain.

Filter panning

Changes the panning of the filter.

Filter key follow

Adjusts the amount of the pressed key (note) following.

Filter route oscillator 1

Switches the filter on/off for the oscillator 1.

Filter route oscillator 2

Switches the filter on/off for the oscillator 2.

Filter route sub 1

Switches the filter on/off for the sub oscillator 1.

Filter route sub 2

Switches the filter on/off for the sub oscillator 2.

Filter route noise 1

Switches the filter on/off for the noise oscillator 1.

Filter route noise 2

Switches the filter on/off for the noise oscillator 2.

Filter route afm

Switches the filter on/off for the am/fm oscillator.

Envelopes

Envelopes shape the “natural” volume (or other) curve on the basis of attack, hold, decay, sustain and release time/level and are easy and good modulation sources.



Envelope tab

Choose the current envelope. Drop right sided modulation bars of knobs here or at the envelope display. Or drag this selector/envelope display at modulations knobs.

Maximize/minimize view

Switches between maximized and minimized view.

Envelope on/off

Switches the current envelope on/off. The first (main) envelope is always on.

Envelope attack time

Adjusts the envelope attack time.

Envelope hold time

Adjusts the envelope hold time.

Envelope decay time

Adjusts the envelope decay time.

Envelope sustain level

Adjusts the envelope sustain level.

Envelope release time

Adjusts the envelope release time.

LFOs (low frequency oscillators)

LFOs are more flexible and complex modulations sources. Points and lines can be drawn to shape the curve of the LFO. BPM synchronization, start delay time, triggering modes and the helpful grid make LFOs the best modulation sources available.



LFO tab

Choose the current low frequency oscillator. Drop right sided modulation bars of knobs here or at the LFO display. Or drag this selector/LFO display at modulations knobs.

Maximize/minimize view

Switches between maximized and minimized view.

LFO on/off

Switches the current low frequency oscillator on/off



LFO grid/snap x

Switches the x axis (time) snapping on/off.

LFO grid/snap y

Switches the y axis (amplitude) snapping on/off.

LFO grid x

Defines the grid size for the x axis (time).

LFO grid y

Defines the grid size for the y axis (amplitude).

LFO draw mode

Switches between linear/spline and step drawing mode of LFO points. Double click adds new points and centers existing points. Mouse wheel zooms in/out. Right mouse button click deletes points and drags the display to left/right.



LFO hz/bpm

Switches between hz (frequency) and bpm (beats per minute) mode.

LFO loop/once/pong mode

Switches between loop/once and pong mode.

LFO trigger

Switches between off/on/release for the LFO start trigger.

LFO until

Switches between off/release for the LFO end trigger.

LFO hz

Adjusts the hz (frequency).

LFO bpm

Adjusts the bpm (beats per minute).

LFO ms delay

Adjusts the delay of the LFO start.

LFO bpm delay

Adjusts the delay of the LFO start.



Load LFO

Loads a file to the current LFO curve.

Save LFO

Saves the current LFO curve to a file.

LFO dotted/triplet

Switches between normal, dotted and triplet note length.

LFO delay dotted/triplet

Switches between normal, dotted and triplet delay note length.

Virtual keyboard

The virtual keyboard can be directly played by left clicking on the virtual keys. Additionally pressed keys on a real keyboard and the generated notes of the step sequencer/arpeggiator will be shown here.



Pitch bend up

Sets the number of semi tones for the pitch wheel bend up.

Pitch bend down

Sets the number of semi tones for the pitch wheel bend down.

Pitch wheel

Changes the pitch wheel position.

Modulation wheel

Changes the modulation wheel position.

Virtual keyboard

You can directly play the virtual keyboard at the display.

Info display

The info display shows the number of playing voices. High voice numbers use much CPU! Reduce the complexity or polyphony of your sound if clicks or pops occurs.



Preset controls

This section controls the user and factory presets. Save new presets, call the preset manager or navigate through the presets here. The global quick load/save buttons allow to organize some presets for quick access.



Save preset

Opens a dialog to save the preset.

Presets

Opens/closes the preset manager.

First preset

Navigates to the first preset.

Previous preset

Navigates to the previous preset.

Preset name

Shows the current preset name.

Next preset

Navigates to the next preset.

Last preset

Navigates to the last preset.

A/B comparison

Compares the last two quickly loaded presets from A-H.

Quickly load/save preset (A-H)

Loads this global quick preset. Long holding the left mouse button down for 2 seconds saves the current settings to this global quick preset.

Main controls

The main preset controls are saved with the presets and manage common parameters (e.g. macros) that are show on every page. The portamento and polyphony settings are well known parameters here.



Bypass

Bypasses the complete processing and user interface.

Macro knobs 1-6

Assign/drag'n'drop more than one modulation parameter to the macro knob and change/automate them together. Additionally the macro can be modulated itself.

Phase switch

Inverts the phase of the outgoing signal.

Mono mode

Mixes the output to mono.

Swap left/right

Swaps the left/right channels of the outgoing signal.



Velocity transpose

Adjusts the velocity (volume) transpose curve for incoming midi notes.

Polyphonic voices

Sets the number of voices. One voice enables the portamento.

Oversampling

Sets the global value overriding oversampling factor, 1 = worst quality but low CPU usage, higher values use much more CPU time for better sound quality. By default the value is inherited by the global oversampling factor in the settings.

Key hold

Doesn't trigger note off events.

Portamento time

Adjusts the portamento (frequency and volume slide) time. Set the number of polyphonic voices to one to enable the portamento. A very short portamento time is nearly similar to a legato.

Portamento transpose

Adjusts the portamento frequency and volume transpose curve.

Portamento first

When enabled, the first played note will also be frequency slided.

Portamento LFO retrigger

Switches the portamento LFO retriggering on/off.

Logo display



Bottom right window edge

Freely resize the window dimensions.

***Hint.** Some DAW hosts or some versions of them have problems resizing plugin windows correctly. Results could be cut window edges or a closed window. A workaround is to just close (not remove) the plugin and reopen it.*

AM-RM-FM-PM

This crystal clear synthesizer is organized in master and slave operators. E.g. a sine master operator (carrier) at frequency factor 1 produces a direct output at the frequency of the played note. A sine slave operator modulates a master, an other slave operator or a wavetable oscillator(!) and adds additional frequencies to the spectrum. Sending feedbacks to other operators produces more complex and interesting sounds. It's a good idea to modulate

frequency factors by envelopes, LFOs or macros. So you could create great overtones at the beginning of sounds (transients).

The different slave modulation types are these:

AM is amplitude modulation and creates additional frequencies around the master frequency without touching the original.

RM is ring modulation and creates additional frequencies around the original master frequency and eliminates the original more and more with higher modulation.

FM is frequency modulation and creates many (frequency dependent) additional frequencies around the master frequency with different frequency shift types.

PM is phase modulation and creates many (frequency independent) additional frequencies around the master frequency.



On/off

Switches the am/rm/fm/pm synthesizer on/off.

Global volume

Changes the volume of the am/rm/fm/pm synthesizer.

Global panning

Changes the panning of the am/rm/fm/pm synthesizer.



OP on/off

Switches the operator on/off

OP factor/fixed

Switches between frequency factor and fixed frequency of the operator

OP frequency factor

The frequency factor of the operator.

OP fixed frequency

The fixed frequency of the operator.

OP mode

Switches between slave (modulator) and master (carrier/output) operator

OP tone mode

Changes the waveform type of the operator

OP slave type

Switches between am/rm/fm/pm synthesis of the operator

OP fm type

Switches between linear and logarithmic types of the fm operator

OP slave output 1

Assigns the first output of the operator to another operator or to a wavetable oscillator.

OP slave output 2

Assigns the second output of the operator to another operator or to a wavetable oscillator.



OP amount

The amount (volume) of the operator.

OP feedback

The feedback of the operator, can be routed to the same or another operator.

OP feedback to

Chooses the operator, the feedback is sent to.

OP panning

Changes the panning of the (master) operator.

OP FX on/off

Switches the effects for the (master) operator on/off.

Extras

This section contains two chaos modulators. These can be used for any custom modulations and are automatically mapped to the two oscillators.



Chaos on/off

Switches the chaos modulator on/off

Chaos hz/bpm

Switches between hz (frequency) and bpm (beats per minute) mode.

Chaos dotted/triplets

Adds dotted notes or triplets to the beat length.

Chaos hz

Adjusts the hz (frequency).

Chaos bpm

Adjusts the bpm (beats per minute).

Chaos transition mode

Chooses the transition mode between two random chaos positions e.g. step, linear, cosine or exponential.

Modulations

All created modulations can be edited here. Easily add new modulations by turning on an entry and setting the source and parameter. The level will set the amount of modulation. Modulations can be inverted and the polarity can be changed. The transpose curve sets the slowness/speed of modulated changes. Additionally the modulations can be multiplied by an auxiliary modulation source to create more complex modulations.

NR	ON/OFF	MODULATION SOURCE	LEVEL	MODULATION PARAMETER
1	OFF	LFO C	0.62	Osc 1 Frq Coarse
2	ON	LFO A	1.00	Osc 1 WaveTable Mod.
3	ON	LFO E	1.00	Osc 1 WaveTable Pos.
4	OFF	None	1.00	None
5	OFF	None	1.00	None
6	OFF	None	1.00	None

Modulation on/off

Switches the modulation on/off.

Modulation source

Chooses the modulation source.

Modulation level

Adjusts the modulation level.

Modulation parameter

Chooses the modulated parameter.



Modulation invert

Switches between 1:1 or inverted modulation mode.

Modulation bi/uni

Switches between bi-polar (positive+negative values) and uni-polar (positive values) mode.

Modulation transpose

Adjusts the modulation transpose curve.

Modulation aux source

Chooses the auxiliary modulation source.

Modulation aux level

Adjusts the auxiliary modulation level.

Modulation aux trans

Adjusts the auxiliary modulation transpose curve.

Arpeggiator / Sequencer

Admiralizer comes with a 256 pattern step sequencer and arpeggiator including swing, tie and key/note substitution. Patterns have 16 to 64 steps and can be edited, loaded and saved. Activate the ON switch and play/hold a key, then notes are automatically generated. The pattern play position can be automated, so it's easy to create a whole song with some or many patterns.

Global parameters



Sequencer on/off

Switches the arpeggiator/step sequencer on/off.

Sequencer beats

Sets the beats/tempo of the sequencer.

Sequencer dotted/triplets

Adds dotted notes or triplets to the beat length.

Sequencer swing

Sets the swing (shuffle) amount of every second step.

Sequencer note length

Sets the note length of every single step note.

Sequencer key substitute

Defines if a key is automatically substituted (filled) if a pressed key of the arp is missing.



Sequencer pattern play nr.

The currently played sequencer pattern number.

Sequencer pattern edit nr.

The current number (1-256) of the pattern that is edited.

Sequencer pattern step count

The number of steps (16-64) of the current pattern.

Sequencer pattern part

The current pattern part of the pattern that is edited (A=1-16 B=17-32 C=33-48 D=49-64).



Sequencer pattern add

Adds a new pattern (64 steps) to the step sequencer to the end of the pattern list.

Sequencer pattern delete

Deletes the currently edited pattern (all 64 steps).

Sequencer pattern clear

Clears the currently edited pattern (all 64 steps).

Sequencer pattern copy

Copies the whole pattern (64 steps) to the buffer.

Sequencer pattern paste

Pastes the whole pattern (64 steps) from the buffer to the currently edited pattern.

Sequencer pattern load

Loads a saved pattern (64 steps, steps only) from a file to the currently edited pattern.

Sequencer pattern save

Saves the currently edited pattern (64 steps, steps only) to a file.

Step parameters



Step on/off (rest)

Switched the step on/off.

Velocity

Defines the velocity (volume) of the generated note.

Octave

This is the octave offset count that is added to or subtracted from the really pressed key note.

Semi note

This is the semi note offset count that is added to or subtracted from the really pressed key note.

Arpeggiator key nr.

This is the number of the really pressed key on the keyboard that is the basis for the generated note. If keys are missing (not pressed), key/note substitution could be activated.

Tie

Holds the current (or previous) step note instead of releasing it.

Position

Enlightens the currently playing step number.

Effects (FX)

The FX section adds effects to the sum of the audio signal, comparable to effects that are added as insert effects in your DAW. Most parameters can be automated and modulated. The usage of the effects can be deactivated for some oscillators (e.g. sub and AM/RM/FM/PM).

Dynamics

The monitor of the dynamics (as well as the one from the limiter) shows the input gain (blue line), output gain (white line) and the gain reduction (red line).



Dynamics on/off

Switches the dynamic processor on/off.

Dynamics mode

Sets the dynamics mode e.g. compressor or expander.

Dynamics input gain

Adjusts the dynamics input gain.

Dynamics attack

Adjusts the dynamics attack time.

Dynamics release

Adjusts the dynamics release time.

Dynamics threshold

Adjusts the dynamics threshold level.

Dynamics ratio

Adjusts the dynamics ratio.

Dynamics knee

Adjusts the dynamics knee width.

Dynamics output gain

Adjusts the dynamics output gain.

Dynamics wet

Adjusts the wet signal level.

Tremolo



Tremolo on/off

Switches the tremolo on/off.

Tremolo depth

Adjusts the depth amount.

Tremolo hz/bpm

Switches between hz (frequency) and bpm (beats per minute) mode.

Tremolo dotted/triplets

Adds dotted notes or triplets to the beat length.

Tremolo hz

Adjusts the hz (frequency).

Tremolo bpm

Adjusts the bpm (beats per minute).

Tremolo stereo

Adjusts the stereo (phase shift) amount.

Pre EQ



Pre EQ on/off

Switches the pre equalizer on/off.

Pre EQ low frequency

Adjusts the pre eq low frequency.

Pre EQ low gain

Adjusts the pre eq low gain level.

Pre EQ high frequency

Adjusts the pre eq high frequency.

Pre EQ high gain

Adjusts the pre eq high gain level.

Overdrive



Overdrive on/off

Switches the overdrive on/off.

Overdrive level

Adjusts the overdrive level.

Overdrive wet

Adjusts the wet signal level.

Distortion



Distortion on/off

Switches the distortion on/off.

Distortion drive

Adjusts the distortion level.

Distortion saturation

Adjusts the saturation level.

Distortion wet

Adjusts the wet signal level.

Post EQ



Post EQ on/off

Switches the post equalizer on/off.

Post EQ low frequency

Adjusts the post eq low frequency.

Post EQ low gain

Adjusts the post eq low gain level.

Post EQ high frequency

Adjusts the post eq high frequency.

Post EQ high gain

Adjusts the post eq high gain level.

Vibrato



Vibrato on/off

Switches the vibrato on/off.

Vibrato depth

Adjusts the depth amount.

Vibrato hz/bpm

Switches between hz (frequency) and bpm (beats per minute) mode.

Vibrato dotted/triplets

Adds dotted notes or triplets to the beat length.

Vibrato hz

Adjusts the hz (frequency).

Vibrato bpm

Adjusts the bpm (beats per minute).

Vibrato stereo

Adjusts the stereo (phase shift) amount.

Phaser



Phaser on/off

Switches the phaser on/off.

Phaser delay

Adjusts the delay time.

Flanger



Flanger on/off

Switches the flanger on/off.

Flanger depth

Adjusts the depth amount.

Flanger feedback

Adjusts the feedback amount.

Flanger hz/bpm

Switches between hz (frequency) and bpm (beats per minute) mode.

Flanger dotted/triplets

Adds dotted notes or triplets to the beat length.

Flanger hz

Adjusts the hz (frequency).

Flanger bpm

Adjusts the bpm (beats per minute).

Flanger stereo

Adjusts the stereo (phase shift) amount.

Chorus



Chorus on/off

Switches the chorus on/off.

Chorus delay

Adjusts the delay time.

Chorus depth

Adjusts the depth amount.

Chorus hz/bpm

Switches between hz (frequency) and bpm (beats per minute) mode.

Chorus dotted/triplets

Adds dotted notes or triplets to the beat length.

Chorus hz

Adjusts the hz (frequency).

Chorus bpm

Adjusts the bpm (beats per minute).

Chorus stereo

Adjusts the stereo (phase shift) amount.

Delay



Delay on/off

Switches the delay on/off.

Delay mode

Switches between number of samples, milliseconds and bpm (beats per minute) mode.

Delay samples l

Adjusts the delay time in samples.

Delay samples r

Adjusts the delay time in samples.

Delay ms l

Adjusts the delay time in milliseconds.

Delay ms r

Adjusts the delay time in milliseconds.

Delay beats l

Adjusts the delay time in beats.

Delay beats r

Adjusts the delay time in beats.

Delay feedback left

Adjusts the feedback amount.

Delay feedback right

Adjusts the feedback amount.

Delay brightness

Adjusts the brightness (low cut) amount.

Delay damping

Adjusts the damping (high cut) amount.

Delay dry

Adjusts the dry signal level.

Delay wet

Adjusts the wet signal level.

Reverb



Reverb on/off

Switches the reverb on/off.

Reverb time

Adjusts the reverb time.

Reverb early

Adjusts the amount of reverb early reflections.

Reverb late

Adjusts the amount of reverb late (tail) reflections.

Reverb low cut

Adjusts the low cut frequency.

Reverb high cut

Adjusts the high cut frequency.

Reverb dry

Adjusts the dry signal level.

Reverb wet

Adjusts the wet signal level.

Equalizer



Equalizer on/off

Switches the equalizer on/off.

Equalizer low gain

Adjusts the low gain level.

Equalizer low frequency

Adjusts the low/mid cutover frequency.

Equalizer mid gain

Adjusts the mid gain level.

Equalizer high frequency

Adjusts the mid/high cutover frequency.

Equalizer high gain

Adjusts the high gain level.

Filter



Filter on/off

Switches the filter on/off.

Filter type

Chooses between predefined filter types.

Filter frequency

Adjusts the filter frequency.

Filter gain

Adjusts the filter gain level.

Filter quality

Adjusts the filter quality (width/resonance).

Filter panning

Changes the panning of the filter.

Limiter



Limiter on/off

Switches the limiter on/off.

Limiter input gain

Adjusts the limiter input gain.

Limiter attack

Adjusts the limiter attack time.

Limiter release

Adjusts the limiter release time.

Limiter threshold

Adjusts the limiter threshold level.

Limiter knee

Adjusts the limiter knee width.

Limiter output gain

Adjusts the limiter output gain.

Limiter wet

Adjusts the limiter wet signal level.

Settings

Global settings are the same for all instances of the plug-in and can be manually loaded and saved. Additionally the settings are loaded at program start. Oversampling, gain protection, auto off and RMS meter settings are set here.



Oversampling

Sets the global oversampling factor, 1 = worst quality but low CPU usage, higher values use much more CPU time for better sound quality.

Global velocity transpose

Adjusts the velocity (volume) transpose curve for incoming midi notes.

RMS meter on/off

Switches the RMS meter on/off.

RMS top dB

Sets the top dB position of the RMS meter and gain control.

RMS dB size

Sets the dB size of the RMS meter and gain control.

Gain protection on/off

Turns the gain protection on/off to protect your ears and speakers.

Gain protection level

Applies a gain protection to the outgoing signal at this dB level.

Quick preset switch

Switches quickly between presets in the preset manager (with one click instead of double click).

Resynth FFT size

The default resynthesis FFT size for loading/importing waveforms.

Auto off

Enables/disables the plug-in auto off feature.

Swap UI

Swaps the keyboard and main control panels at the bottom.

Load global settings

Loads the global settings from the config file - all instances use the same file.

Save global settings

Saves the current global settings to the config file - all instances use the same file.

Theme support

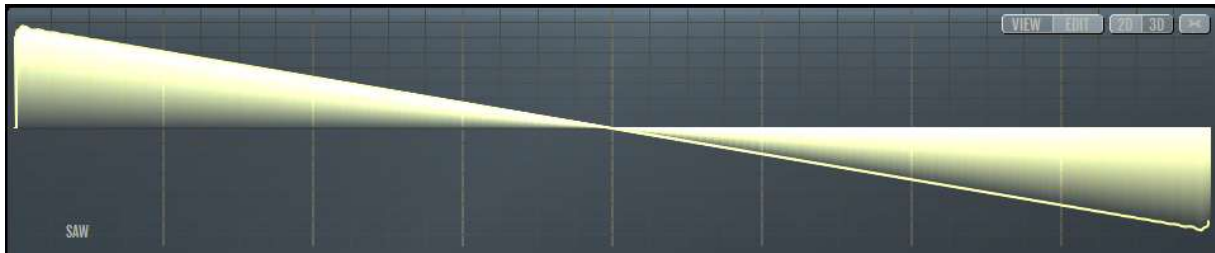
The config file also contains the current theme including text, background & panel colors, brightness and button style. The settings tab shows the key scheme. It describes, how to adjust these values. The numeric keys select factory themes. Colors are set by a combination of RGB (red, green, blue) values. The values of the theme can be set at the settings tab only. Please don't forget to save the configuration after changing these values.



KEYS 1-7: SELECT THEME Q,W,E: SELECT COLOR R,F,T,G,Z,H: RGB U,J: BRIGHTNESS 70 I,K: KNOBSTYLE 0
>TEXT: 110 145 130< BACK: 0 0 0 PANEL: 200 230 255

Wavetable editor

The 2D/3D real time wavetable editor is a very flexible tool to edit, import, generate and morph the 256 waveforms of the wavetable. The right half of the controls are settings for the generation of new waveforms. You can directly draw waveforms using the current draw mode or change the harmonic content of certain bins/slots. While being in the editor, the wavetable position is fixed to the chosen position (except modulations that are still active).



Wavetable display

You can paint custom waveforms here by using the draw mode.



Wavetable position

Changes the wavetable editing (and playing) position.



Harmony bin/slot offset

The offset of the harmony (bin/slot) display.

Harmony bin/slot

The current harmony bin/slot with magnitude and phase angle. Left mouse button changes the magnitude, right mouse button the phase.



Load/resynthesize waveform

Loads or resynthesizes a wave file.

Save waveform

Saves the current waveform to a file.

Wavetable morphing type

Changes the wavetable morphing type.

Wavetable phase morphing

Changes the wavetable phase morphing type.

Morph

Morphs the complete wavetable between the defined and existing waveforms.



Set waveform to

Sets the waveform at the current position to a predefined waveform.

Edit waveform(s)

Edits e.g. normalizes the waveform at the current position or all waveforms.

Organize wavetable

Reduces and spreads waveforms within the wavetable.

Clear waveform(s) or phase(s)

Clears the current or all waveforms/phases of the wavetable.

Copy/mark waveform

Copies the current waveform to the buffer and marks it.

Paste waveform

Pastes the copied waveform to the current position.



Waveform grid/snap x

Switches the x axis (time) snapping on/off.

Waveform grid/snap y

Switches the y axis (amplitude) snapping on/off.

Waveform grid x

Defines the grid size for the x axis (time).

Waveform grid y

Defines the grid size for the y axis (amplitude).

Draw mode

Sets the draw mode if you want to paint a waveform.



Phase shift

Shifts the phase of the current waveform.

Waveform shift

Shifts the current waveform.



Generator source

Selects a source for the waveform generator.

Generator harmony gap

Defines a gap size between the generated harmonics/bins.

Generator harmony divisor

Divides the amplitude of the generated harmonics by the selected factor.

Generator harmony multiplier

Defines the multiplier for the harmony bins.

Generator amplitude multiplier

Defines a multiplier for the amplitude of the bins.

Generator minimum harmony

Defines the minimum harmony/bin number for the generation.

Generator maximum harmony

Defines the maximum harmony/bin number for the generation.

Generator sample hold

Enables a sample hold function for the generation.

Generator bit crusher

Enables a bit crusher for the generation.



Generator clip mode

Defines what happens if the amplitude of the generated signal is clipping.

Generator fade type

Defines the fade type of the generated waveform.

Generator phase shift

Sets the phase of the generated waveform.

Generator normalize

Normalizes the generated waveform.

Generate waveform

Generates one single waveform by using the selected parameters/values.

Preset system



Admiralizer is delivered with many presets and an impressive preset manager. You have the options to save your own presets with the save button or with the quick save preset function at

the main screen. The presets have the extension *.pre, are stored at the following locations and can be freely copied/renamed and organized in sub folders:

For Windows: \Users\<youruser>\AppData\Roaming\SugarAudio\Admiralizer\Presets

For Mac: ~/Library/Application Support/SugarAudio/Admiralizer/Presets

At program start these (sub)folders are scanned for new content. Extract your preset files/folders from here to distribute them to other systems and the community.

Presets can be tagged with, filtered and sorted by these attributes:

- Name
- (Sub-)Category
- Author
- Library
- Timbre
- Style
- Rating
- Date
- Factory / user preset
- Description
- Color

Filtering by attributes is achieved by selecting these in the upper half of the preset manager.



Clicking the headers of the result list sorts the presets by this attribute. Preset colors and a description can be additionally set. The search field at the bottom left filters the name and categories by the entered text.

A double left click loads a presets. With the QUPRS option In the settings set, presets will be quickly loaded by one click.

A right click at text fields edits this text and new values are automatically added to the attribute lists. STRG / CMD at the rating deletes it.

***Hint.** To easily set an existing attribute from one of the upper half lists to the selected preset, hold STRG / CMD and left click at one of these attributes.*

Delete

Deletes the selected preset.

UI Lock

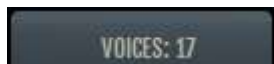
Locks UI relevant settings and protects them against overwriting when loading presets.

About (default) presets

Admiralizer has a factory and custom preset system. However, most of the modern DAWs have a built-in and plug-in independent preset system by themselves and in most cases you can also define a default preset with your favorite plug-in settings.

***Hint.** So please check the manual of your DAW software to save a default preset.*

Voices count



The number of active voices is displayed at the bottom right. High values will have a deep impact on your CPU usage, so consider to reduce the complexity and/or polyphony of your settings to avoid drop outs and clicks.

Macros



The six macro knobs at the bottom of the screen are special modulations sources and can be modulated itself by other sources. So it's easy to control/automate multiple parameters with one knob and one modulation source.

Example: drag'n'drop the modulation bars of the oscillator modification amount as well as the wavetable position to the macro knob 1. Then drag'n'drop the macro knob itself to the LFO A. Now both parameters are controlled with one LFO and one macro knob. Please consider to change the polarity, amount and inversion of the modulations at the matrix page.

Oversampling

The in-build up to 8x oversampling guarantees a perfect sound quality. A factor of 2 will work fine for most use cases and higher values will have an impact on your CPU usage. The oversampling factor is set globally in the settings and all presets inherit from this factor. For some presets you can set an own factor by choosing it at the bottom of the main screen. This factor overwrites the global one and is saved with the preset.

Anti-aliasing

Admiralizer has aliasing free wavetable oscillators and other anti-aliasing strategies in-built e.g. oversampling, special downsampling filters and interpolators/smoothers. However, if you overdo things e.g. use high distortion or overdrive values, high octave sub oscillator octaves, sub with sawtooth/square waveforms or extreme LFO curves, it's possible that aliasing could occur (maybe sometimes intentionally as creative effect).

MPE support

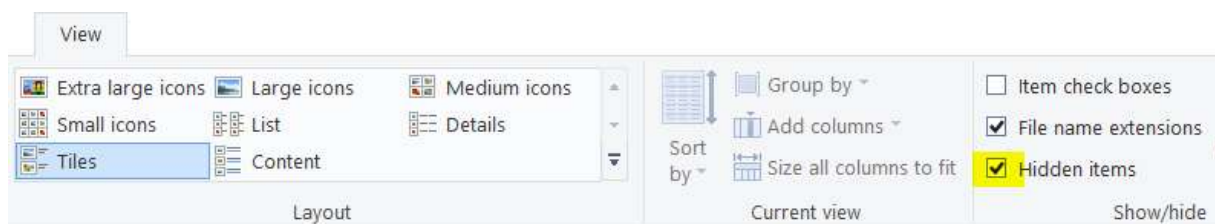
Admiralizer supports one zone MPE (multidimensional polyphonic expression) controllers and reacts to MIDI channel dependent 48 semi tone range pitch bend changes, aftertouch (channel pressure) messages and the timbre controller (CC 74). Aftertouch and timbre messages have to be modulated in the modulation matrix to have an effect on the sound.

File system, folders & config file

These are the main folders for presets, wavetables, patterns, LFOs and the settings config file:

Windows

In Windows Explorer enable hidden items:



Navigate to: \Users\\AppData\Roaming\SugarAudio\Admiralizer

macOS

In Finder navigate to: /Library/Application Support/SugarAudio/Admiralizer

The file Config.txt contains global settings (e.g. RMS meter, colors & auto off settings), that can be adjusted in the Settings tab of the plug-in. Please do not change this file manually, if you don't know exactly, what you are doing.

Clearing the Mac audio units cache

Some circumstances can lead to the wrong AU plug-in validation by the AUval tool that Logic and GarageBand use for checks when the DAW starts. For example when the plugin type changes with an update from „no-MIDI-support“ to „MIDI-support“, the AU type changes also and the validation could fail. Unfortunately an update will not always be automatically detected by the AUval tool. To clear the AUval cache (that is automatically rebuilt after a machine restart), please delete the following file(s) with administrator privileges in the Finder of your system disk drive:

in folders /Library/Caches/ and ~/Library/Caches (if files are present, the ~ is your user folder)
file com.apple.Components2.LocalCache.AudioComponents
file com.apple.audiounits.cache

Please reboot your machine after deleting the file(s).

Performance guide

Admiralizer is highly optimized and many hours have been spent in making it as quick as possible. But at a certain point you will maybe reach your system limits especially if you have an older system with little RAM or slower CPU. Audio frame drop outs and clicks could occur. However here are some hints how to reduce CPU and memory usage of the plug-in, if you push your system to the limits.

- Render/freeze your DAW tracks to waveform samples
- Use less automation, don't change automation constantly over a long time range
- Reduce the number of polyphonic voices
- Set the oversampling factor to a lower value
- Reduce the number of unison voices
- Reduce the number and complexity of modulations
- Don't use wavetable modification
- Set unused/unnecessary oscillators, filters, LFOs, envelopes, operators, chaos modulators and effects to off
- Use fewer filters or use filters with lower dB fall off
- Turn the RMS meter and gain protection off
- Bypass unnecessary instances by using the built-in Bypass button
- Use the auto off feature
- Use smaller plug-in window resolutions
- Close the plug-in UI if you don't need it
- Buy better hardware :-) especially with better CPU and more RAM



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Tiny file dialogs designed by Guillaume Vareille.

Sample rate converter designed by Aleksey Vaneev of Voxengo.

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