



RONAN FED



# ESSENCE

SUBTRACTIVE POLYPHONIC SYNTH

## MANUAL

# Essence for Windows

Developed by Ronan Fed



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## Requirements:

- Windows 8 or higher (Windows 10 or 11 recommended)
- [Visual C++ Redistributable Packages](#) (x64)

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# 1. Introduction

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**Essence is a basic subtractive polyphonic synthesizer that features:**

- 3 Multi-Voice Oscillators (8 voices with Detune & Stereo Spread)
- Noise Oscillator with stereo control
- Sub Oscillator
- Filter (LowPass, BandPass and Highpass modes)
- Filter Envelope with shape controls
- Amplitude Envelope with shape controls
- 2 Modulation Envelopes
- LFO with BPM sync
- Stereo imaging
- Compression and Gain
- Hardclip Distortion
- Saturation
- Delay
- Reverb
- Chorus
- EQ

**Hint 1:** Double click on a Knob or Slider to reset the value.

**Hint 2:** Press the Ctrl key while moving a Knob or Slider to fine adjust the value.

# 2. Installation

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## VST2 Version:

Install with setup. This will create a “Ronan Fed\Essence” folder in your 64-bit plugins folder.

By default: **C:\Program Files\Vstplugins\Ronan Fed\Essence**

Open your DAW and search for new installed plugins.

## VST3 Version:

Install with setup. This will create a “Ronan Fed\Essence” folder in your VST3 system folder.

By default: **C:\Program Files\Common Files\VST3\Ronan Fed\Essence**

Open your DAW and search for new installed plugins.

## Presets

**VST2 plugin Factory Presets location (Inside the same folder as the plugin):**

By default: **C:\Program Files\VSTplugins\Ronan Fed\Essence\vst2FactoryPresets**

**VST3 plugin Factory Presets location (Inside the VST3 system folder):**

The setup additionally will create a “**VST3 Presets\Ronan Fed\Essence**” folder in your system “Documents” folder.

By default: **C:\Users\[yourusername]\Documents\VST3 Presets\Ronan Fed\Essence**

***Note: If you move the folder from this default location, the VST3 presets will not be found by the plugin.***

# 3. Top Bar

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**MIDI IN:** MIDI controller input signal.

**POLYPHONY:** Sets the number of polyphony voices (max. 16)

**OVERLAP:** Enables Voices Overlap. Previous voice is faded out slowly when you play the same key repeatedly (uses more CPU)

**MONO:** Enables mono mode (Polyphony off)

**RETRIG:** Sets mono retrigger (Mono legato off)

**PB:** Pitch Bend Wheel range (0 to 12 semitones)

**OCTAVE:** Selects the main octave (-3/+3)

**PRESETS:** Presets browser.

**MENU:** Options to load and save banks and presets.

# 4. Oscillator

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Each of the 3 oscillators on the synthesizer can generate 1 to 8 voices in unison.

**WAVE:** Selects the shape of the sound between 7 Waveforms [Saw (sawtooth), Sine, Ramp (inverted Saw), Pulse (Square), Triangle, White Noise & Pink Noise]

**RETRIGGER:** Synchronizes all voices.

**PW:** Pulse Width. Affects only the Pulse wave (square shape) making the sound thinner.

**OCT:** Adjusts to -3/+3 octaves.

**SEMI:** Adjust to -11/+11 semitones.

**FINE:** Fine Tuning to -1/+1 semitone.

**VOICES:** Number of voices per note (1 to 8)

**DETUNE:** Detunes the voices. This can be used to create a **supersaw** effect.

**STEREO:** Select the stereo separation for all voices.

**PHASE:** Changes the phase start of the waveform (-180/+180 deg.)

**PAN:** Panning left or right.

**VOLUME:** Output volume of the Oscillator.

# 5. Noise Oscillator

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Generates a white noise waveform.

**STEREO:** Sets the amount of stereo.

**PAN:** Panning left or right.

**VOLUME:** Output volume of the Oscillator.

# 6. Sub Oscillator

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Generates a sub waveform.

**WAVE:** Selects the shape of the sound between 3 Waveforms [Sine, Triangle & Pulse]

**OCT:** Adjusts to -3/+3 octaves.

**VOLUME:** Output volume of the Oscillator.



# 7. Filter & Filter Envelope

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Shapes the tone of the sound generated by the Oscillators.

Cuts or let pass frequencies.

**MODE:** Selects the filter mode for the **State Variable Filter (SVF)**:

- **LowPass** - 24 dB low-pass filter
- **BandPass** - 12 dB band-pass filter
- **HighPass** - 24 dB high-pass filter

**CUTOFF:** Adjusts the Filter cutoff frequency.

**RESO:** Adjusts the Filter resonance.

**KEYTRK:** The keyboard track knob makes the cutoff frequency dependent on the actual note played - higher notes mean higher cutoff, lower notes mean lower cutoff.

**ENV:** Sets the envelope amount of the filter cutoff frequency.

## FILTER ENVELOPE

**ENV-CURVES Switch:** Toggles between Envelope and Curves visualization.

## ENVELOPE

**ATTACK:** Specifies the time that passes before the filter cutoff reaches the maximum level.

**DECAY:** Specifies the time that passes before the filter cutoff decrease to the level specified by the Sustain parameter.

**SUSTAIN:** The filter cutoff sustains at this level, for as long as the key is being held.

**RELEASE:** When the key is released, the envelope releases and drops back to the minimum level after the period of time specified by the Release parameter.

## CURVES



**ATTACK:** Sets the shape of the Attack, 0=Exponential, 10= Linear.

**DECAY:** Sets the shape of the Decay. 0=Exponential, 10= Linear.

**RELEASE:** Sets the shape of the Release. 0=Exponential, 10= Linear.

# 8. Amplitude Envelope

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Shapes the sound created by the Oscillators and Filter.  
Makes the sound fade in and out, or adds punch to it.

**ENV-CURVES Switch:** Toggles between Envelope and Curves visualization.

## ENVELOPE

**ATTACK:** Specifies the time that passes before the amplitude reaches the maximum level.

**DECAY:** The envelope drops down to the level specified by the Sustain parameter, during the time specified by the Decay parameter.

**SUSTAIN:** The envelope then sustains at this level, for as long as the key is being held.

**RELEASE:** When the key is released, the envelope releases and drops back to the minimum level after the period of time specified by the Release parameter.

## CURVES



**ATTACK:** Sets the shape of the Attack, 0=Exponential, 10= Linear.

**DECAY:** Sets the shape of the Decay. 0=Exponential, 10= Linear.

**RELEASE:** Sets the shape of the Release. 0=Exponential, 10= Linear.

# 9. LFO (Low Frequency Oscillator)

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The LFO (Low Frequency Oscillator) is a common modulation source.

**DESTINATION:** Modulates the pitch, volume, filter cutoff, pulse width, panning, etc.

**SHAPE:** Selects the waveform to modulate the destination parameter.

**SYNC:** Synchronizes the frequency of the LFO to a multiple of the current tempo (BPM) of the Host.

**RATE:** Speed of the waveform.

**DEPTH:** Amplitude of the waveform.

# 10. Modulation Envelopes

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The Modulation Envelopes are similar to the Amplitude Envelope. It can be used for all kinds of modulation, but two commonly used destinations are the pitch and the filter cutoff.

**DESTINATION:** Modulates the pitch, pulse width, filter, panning, etc.

**ATTACK:** Adjusts the attack time.

**DECAY:** Adjusts the decay time.

**SUSTAIN:** Adjusts the sustains level.

**AMOUNT:** Sets the envelope amount of the destination parameter.

# 11. Effects

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## DELAY

**TIME:** Sets the Delay time in musical notes values.

**PING-PONG:** Selects Ping-Pong mode (stereo bounce).

**FEEDBACK:** Sets the amount of feedback to create echoes.

**LEVEL:** Amount of Delay.

## REVERB

**DAMP:** Adds 'dampness' (expansion) to the reverb.

**DECAY:** Time of the Reverb (max. 12 seconds)

**LEVEL:** Amount of Reverb.

## CHORUS

**LEVEL:** Amount of Chorus.

## EQ

**BASS:** Controls the level of the bass freq. (-15/+15 dB)

**MID:** Controls the level of the mid freq. (-15/+15 dB)

**HIGH:** Controls the level of the high freq. (-15/+15 dB)

**FREQ:** Selects the frequency of each band.

# 12. Output

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**VELOCITY AMP:** Amount of velocity to modify the amplitude (volume)

**VELOCITY FILTER:** Amount of velocity to modify the filter cutoff.

**STEREO:** Enables stereo imaging.

**GLIDE MODE:** Sets the portamento mode.

**GLIDE:** Sets the portamento time.

**VIBRATO:** Sets the amount of vibrato.

**DISTORTION:** Enables the hard clip distortion and saturation.

**DISTOR:** Sets the amount of hard clip distortion.

**SATUR:** Sets the amount of saturation.

**COMPR:** Sets the amount of compression.

**GAIN:** Sets the amount of gain (signal amplification)

**PAN:** Sets the main panning.

**VOLUME:** Sets the main volume.