



# ESSENCE

SUBTRACTIVE POLYPHONIC SYNTH

v1.0

MANUAL

# Essence v1.0 for Windows

Programming and Design: Ronan Fed



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## Requirements:

- Windows 8 or better (Windows 10 recommended)
- [Visual C++ Redistributable Packages](#) (x64, 2015 version)

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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)
- 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 (Low Frequency Oscillator) with BPM sync
- Distortion Control
- Saturation Control
- Bass & Treble Controls
- Gain Control
- Stereo imaging
- Oscilloscope

# 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.

(e.g., 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.

(e.g., C:\Program Files\Common Files\VST3\Ronan Fed\Essence).

Open your DAW and search for new installed plugins.

## **Presets**

### **VST2 plugin Factory Presets folder (Integrated):**

C:\Program Files\VSTplugins\Ronan Fed\Essence\vst2FactoryPresets

### **VST3 plugin Factory Presets folder:**

Install with setup. This will create a “VST3 Presets\Ronan Fed\Essence” folder in your “C:\Users\[username]\Documents” folder.

(e.g., C:\Users\[username]\Documents\VST3 Presets\Ronan Fed\Essence)

Note: If you move the folder from this default path, VST3 presets will not be found.

# 3. Top Bar

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

**POLYPHONY:** Sets the maximum number of polyphony voices (1 to 32)

**MONO:** Selects mono mode.

**RETRIG:** Sets mono retrigger.

**PB:** Pitch Bend Range

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

**PRESETS:** Presets browser.

**MENU:** Selects options to load and save banks and presets.

# 4. Oscillators

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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]

**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 effects.

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

**PHASE:** Changes the phase of the wave.

**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, an octave below the main oscillator pitch.

**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 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. Output

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**VELOCITY AMP:** Velocity to amplitude (volume)

**VELOCITY FILTER:** Velocity to 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 distortion.

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

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

**TREBLE:** Adjust the high frequencies.

**BASS:** Adjust the low frequencies.

**PAN:** Sets the main panning.

**VOLUME:** Sets the main volume.



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