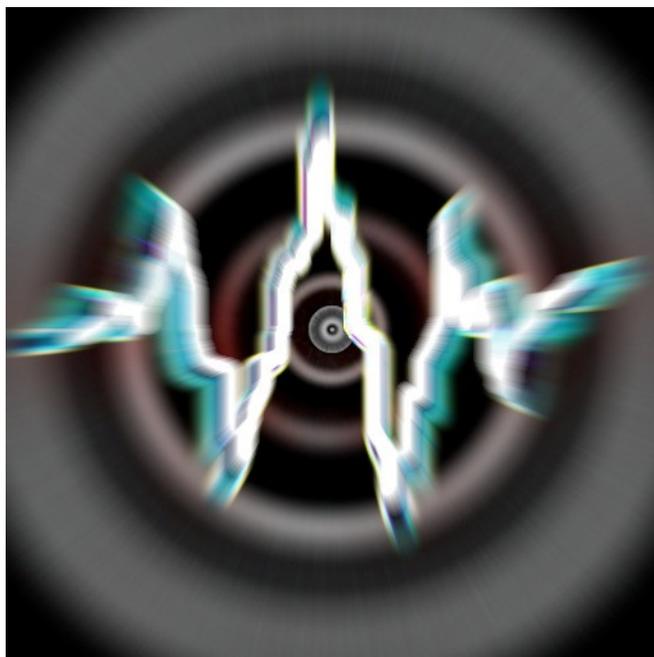


User Manual

# Synthesizer

V 3.3

Welebny Software



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# Introduction

The world of synthesizers is a very open world, the possibilities for creating sounds being infinite. What a certain synthesizer actually does, is defined by technology and the preferences of the producer. Often it does not make sense to compare one synthesizer with another by comparing the features, because the most important question is, if the artist likes the sounds coming out and the user interface to produce them. That is a question of taste. *De gustibus non est disputandum*. That's why synthesizer lovers collect synthesizers. To want another synth does not necessarily mean to want a better one, but a different one.

So what is the Welebnny approach towards synthesizers?

When we watch the technological evolution, terms like additive and subtractive sound synthesis, phase and frequency modulation or sampling technology show up. Creating synthetic sounds can have two goals:

1. to create individual, artificial and innovative sounds.
2. to achieve near real instrument, or real live sounds.

While most developments served the artists' freedom to deal with this trade-off, there is one development which definitely can produce beautiful sounds, but limits creativity, that is sampling, the reproduction of recorded sounds. In our understanding sampling has not really something to do with a synthesizer, so you won't find it in our products. Synthetic sound only.

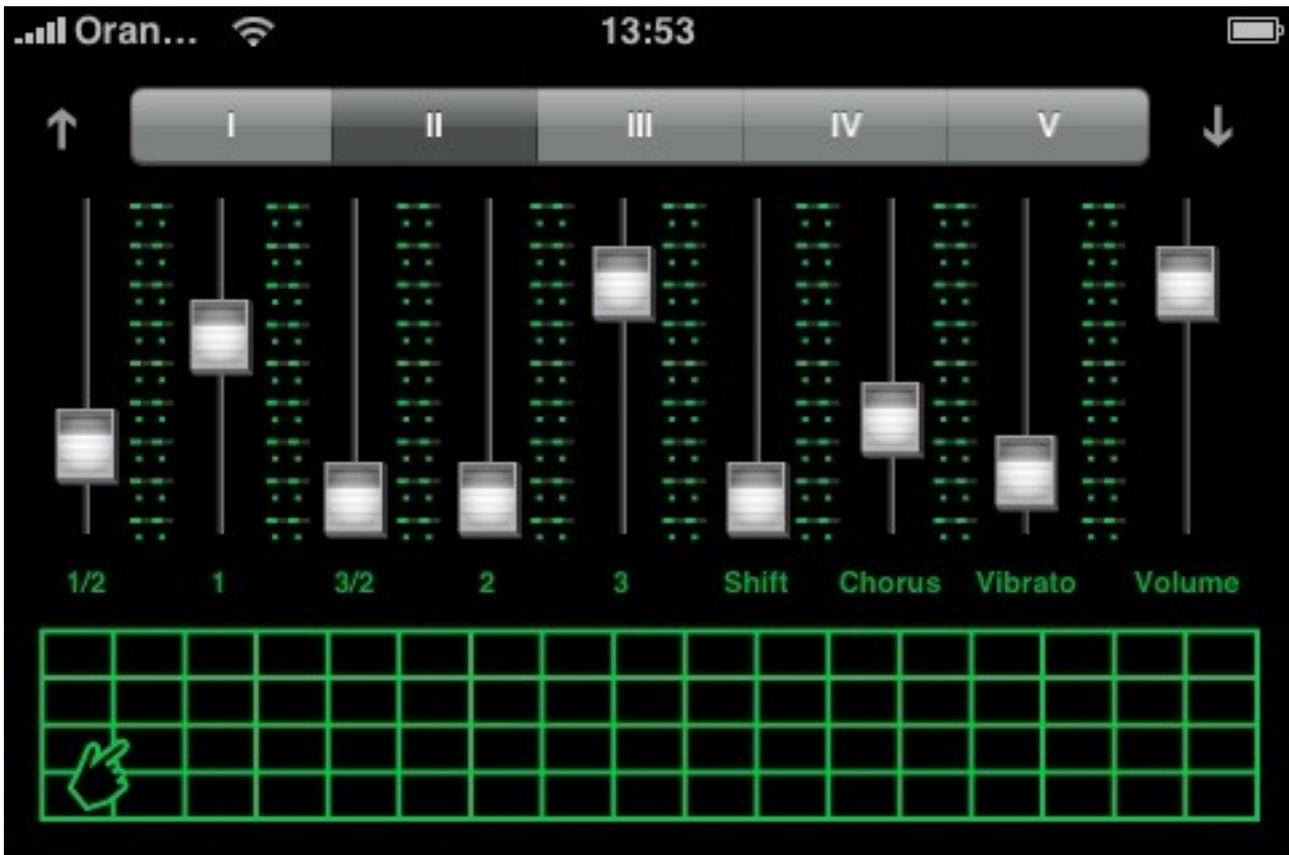
Another credo of ours is that rhythm should be human rhythm, not computed rhythm. So we do not support looping and sequencing. You may question this, and in that case you can use downstream equipment, software or hardware devices, to indulge your passion or serve your demands.

As of now our synthesizer does not feature a keyboard, but a sound pad instead. It does not let you know the pitch or note you are playing, which frequently gives food to sometimes angry user comments. What is the idea behind that? First of all scales are a question of culture. Our synth aims to go beyond these cultural schemes. Secondly a sound pad encourages gradient pitches and challenges the users ear, like the violin does (having no frets). You may have a hard time to find the right tone in the beginning, but therefore your sound will become detached and outstanding.

# Recommendations

- ① Use your earphones for a better sound experience.
- ② Connect the sound output of your device to the mic/line input of your mixer, recorder or computer (male –male audio jack cable required).
- ③ Setting Synthesizer up as a real instrument in your favorite music production software on your computer will enable you to use all recording, looping, mixing, and effect features with Synthesizer. You can also create songs or ring tones that way.

## Main Screen



### *Presets*

The grey bar on top lets you select a preset (I - V). Your changes of the presets will be stored. You can return to factory settings by shaking your device.

### *Harmonics*

Sliders  $\frac{1}{2}$ , 1,  $\frac{3}{2}$ , 2 and 3 refer to oscillators, which produce sinus waves in different, but harmonic pitches. (sometimes referred to as 8', 16', ..., a notation which comes from the organ).

### *Shift*

Shifts the pitch interval of the sound pad up or down.

## ***Chorus***

Another oscillator producing a wave slightly pitch shifted from oscillator 1, giving a characteristic sound effect. Always use together with oscillator 1.

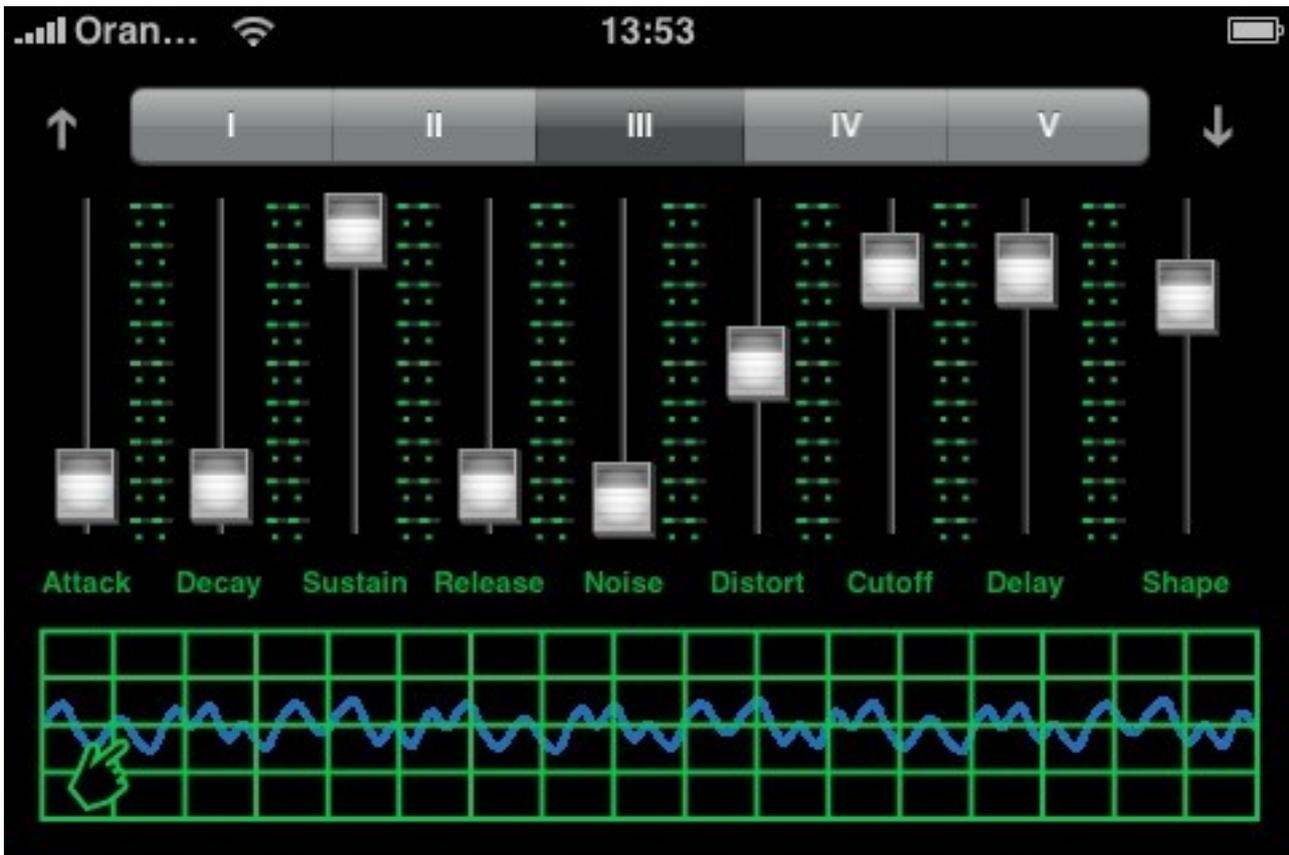
## ***Vibrato***

A low frequency oscillator (6 Hertz).

## ***Volume***

master volume

## Screen 2



### ***Attack, Decay, Sustain, Release***

Define the so called ADSR envelope, that is the attack duration, the decay duration after the attack, the sustain level, and the release duration (after the touch on the sound pad ends).

### ***Noise***

Generates “Brown Noise”.

### ***Distortion***

Distortion is a general term referring to all kind of changes to the wave form. In this case we use it synonym to clipping, a limit of the wave amplitude, resulting in a rich upper tone spectrum.

## ***Cutoff***

A low pass filter, smoothing sharp edges or sudden changes of the amplitude.

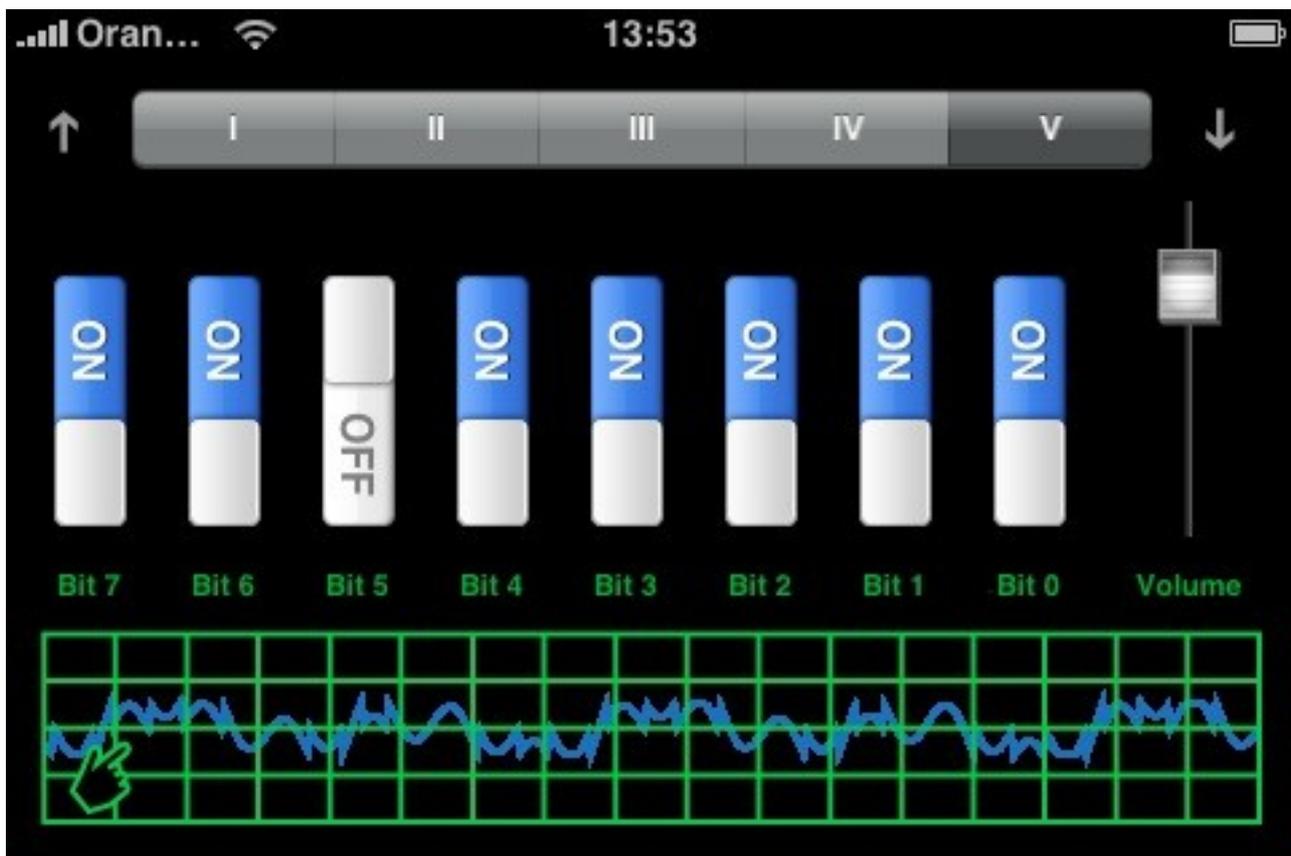
## ***Delay***

A slightly delayed signal is added to the original signal, resulting in an effect similar to resonance, or reverb.

## ***Shape***

A dimmer for the brightness of the wave shape view.

## Screen 3



### *Bitcrusher*

A bitcrusher is a sound effect belonging to the subtractive synthesis family. It reduces the number of bits of the output signal producing a special kind of distortion.

## Screen 4



### ***Frequency Modulation***

Another oscillator is used, which modulates the frequency of the carrier frequency. This modulation results in upper and lower tone sidebands. You can configure the frequency ratio between modulator and carrier, the modulator waveform, and the modulation index (the intensity of the modulation).