High-end synthesizer-workstation

Professional testers from various audio-magazines are convinced that Icarus is an epic synthesizer and a must-have for producers.

This workstation is one of the most versatile and mighty synthesizers ever. Icarus2 offers 54 different synthesis methods and provides a gigantic sonic range. The audio engine is not only able to create all classic synthesizer sounds. It can produce a vast range of fresh sounds, which are impossible with other products. The innovative '3D wavetable synthesis', which is exclusive to Icarus, creates a new dimension of sounds with dynamic expression and acoustic movement. Besides that many other unique synthesis-methods are available that can be combined freely.

Icarus comes with the largest collection of filters available within a synthesizer. The audio-engine offers many powerful features like a drum-sequencer, a built-in vocoder, re-synthesis, a glitch-sequencer, the most advanced wavetable-editor available, an extremely mighty oscillator section, MSEGs, ...

However, the synth still remains very easy to use. A comfortable interface with drag & drop support gives you instant help, visual feedback and immediate acoustic results.

The award-winning audio engine offers high-end sound quality and extreme flexibility with low demands on your CPU.

Icarus ships with an inspiring collection of 1600 production-ready sounds created by professional designers. A smart patch browser allows you to find the right sound rapidly.

Synthesis

The reviews in various audio-magazines proof that Icarus is one of the most versatile, impressive sounding synths on the market. The exceptionally powerful audio-engine is able to create all important synthesizer sounds in high-end quality. Icarus can do a gigantic amount of synthesis-methods: 3D wavetables, classic wavetables, resynthesis of samples, vocoder, additive, substractive, analog, FM with up to 6 operators, formant synthesis, waveshaping, PWM, sync, ringmod, AM, noise, physical-modeling, phase-distortion, granular, time-stretching, pitch-shifting, samples, harmonic-morphing, FFT-filtering, lofi, import of custom waveforms and wavetables and many other innovative modes, exclusive to Icarus. Get instantly inspired by the massive number of fresh, original sounds and create tracks with unique and individual characteristics!

The sound-quality of Icarus easily surpasses conventional synths, but you don't need to own a high-end computer to be able to use it. The algorithms for this synthesizer were developed and optimized by an experienced DSP-expert. That's why Icarus offers the best possible sound quality together with low CPU demands.

3D-Wavetables

The award-winning '3D Wavetable Synthesis' creates sounds impossible with other synths and reveals a new level of dynamic expression. We have extended the classic wavetable-synthesis, which can cross-blend waveforms, with an additional morph-dimension. You can use 54 morph-modes to further shape and modulate the sound. The morph-modes are not limited to traditional waveshaping-methods. We also included a vast range of innovative and exclusive synthesis-methods, which are not available from other companies. This results in a wide range of unique sounds that cannot be produced by other synthesizers. Get inspired by unheared signature-sounds and give your productions an unique character!

Oscillators & Hypersaw

Icarus offers three oscillator-blocks with true stereo-architecture. Each oscillator-block itself again can contain up to 10 detuned hypersaw-oscillators. We've expanded the popular hypersaw concept with a stereo-processing, precise phase-control, punch and the ability to make single oscillators play chords. 37 different modes are available, including, hypersaw, supersaw, stereo hypersaw, unison, stacking, chords and flanging. The hypersaw-modes can be combined with any kind of wavetable, waveform or synthesis-method.

Filters

Icarus2 comes with the most powerful filter-section available on the market. Our synthesizer-flagship offers 63 exciting filter types. It's a best-of selection of over 300 filter-algorithms that were developed by Dipl. Inf. Univ. Markus Krause during the last 15 years. Many filter-types are exclusive and not available from other companies, which results in a wide range of unique sounds that cannot be produced by other synthesizers. All filters are musical useful and have really different sonic characteristics. We did not include similar sounding types.

There are two modular filter-blocks available. Each one is equipped with true stereo-architecture, flexible routing and multi-mode filters. Two stereo-distortion-sections, each with 9 different modes, allow you to further shape the sound.

An animated display shows the frequency-response and gives you immediate visual feedback. This makes it very easy to understand and tweak the filter-behavior.

Since all filters were created by an experienced DSP-expert, they do not only offer high-end sound-quality, but also low CPU-requirements.

Arpeggiator

The included arpeggiator instantly creates inspiring and wonderful melodies. Working with the powerful arpeggiator is very simple: Just input your notes into the note-sequencer. The arpeggiator supports advanced features such as glides, swing & shuffle, split, smart note-sorting, matrix-integration and gives you precise control over play-direction and velocity. Comfortable playing aids like auto-chord speed up the production process and assist you whenever you need it. Don’t feel like programming your own patterns? Just load one of the many pattern-templates.

Drums

Icarus2 has been extended with a drum-sequencer. It is an easy-to-use, but powerful X0X-style sequencer-module. It comes with a wide variety of drum-sounds, noises and waveforms. You can also import your own samples and save your own templates. A large collection of 100 drum-patterns created by professional designers is included. The drum-sequencer supports swing, shuffle, loop-length, effect-send, key-split, roll, mono-samples, stereo-samples, looped samples and looped waveforms. Your sounds can be passed through punchy, BPM-synced envelopes, which allow you to create impressive 'gated-drum-sounds' easily. You can stretch wav-files with drum-loops or any other rhythmic content so that they automatically sync to BPM. Furthermore, the drum-sequencer is not only limited to playing drum-sounds. It is also a small multi-timbral synthesizer that is able to play looped samples or waveforms with or without pitch-tracking. It does also come with a smart auto-accompaniment which automatically resolves the chord that you are currently playing and plays a bass-line that 'fits'.

Effects

Icarus comes with a smart and flexible effects-section. 54 different effects, feedback and a limiter can be combined in modular slots in order to build new and exciting results. You can create your own custom effects which can be saved and loaded separately.

The innovative ducking-module can make the mix sound more transparent and lush. It dynamically adjusts the volume of the effect-mix and prevents delays clashing with the original signal.

Microtuning

Icarus offers 21 different microtuning-modes. The engine can slightly detune certain voices to make your chords sound fatter, harmonically rich and warm. We also developed several innovative algorithms that are not longer limited to the usage of a certain tonality. Icarus is able to analyze what you are playing in real-time and can enhance your chords automatically.

Glitch-sequencer

Icarus2 has been extended with a grid-based glitch-sequencer. You can chop your sounds and create modern glitchy, pitchstop, trancegate or stuttering effects. 'The Glitch' works similar to a multi-effect sequencer. The incoming audio is passed through 10 different effect-modules. Each effect is controlled by up to 16 segments to adjust the parameter of the effect. Furthermore, it is possible to adjust the speed, groove, routing, mix, smoothness and loop-length. Random-buttons allow you to create new sequences quicky. It is also possible to load and save your own templates.

Equalizer

Optionally a smart equalizer with dynamic bass-boost and psychoacoustic-processing is provided to make your sound sit right in the mix. The EQ is easy to tweak since a  display visualizes the frequency-response in real-time.

Interface

Icarus offers a huge sonic range, is extremely versatile, but still remains easy to use. Animated displays give you visual feedback. You can instantly see and hear the results of your actions. Context sensitive tool-tips explain the function of the control that you're currently tweaking. The user-friendly and accessible interface makes tweaking easy for anyone, regardless of skill level or experience.

The GUI can be displayed with 12 different sizes and three scales: Small, normal or huge. It is also possible to hide parts of the interface, like the keyboard, when you don't need it.

The customize-able interface allows you to select your favorite color from 26 schemes.

Patch-browser

The patch-browser gives you instant access to a great and inspiring library with production-ready sounds. Icarus2 comes with an astounding collection of 1600 (!) hand-picked patches. Each sound has been carefully built by a professional sound-designer and has been crafted with a lot of love and great attention to detail. The patches are very easy-to-mix, because they've been carefully EQed, pre-mastered and are in perfect sync to your track tempo.

Since all patches have been sorted into categories you can find quickly what you need. You can tag your favorites with a ranking-system.

An on-screen keyboard allows you to audition to the sounds .

Modulation

Spice up your tracks with exciting movement! Do you want to use the LFO to wobble your sound? Simply drop it onto a knob and you've got it. Modulation can be as simple or complex as you want. Use drag & drop or the modulation matrix to connect dozens of sources to all important sound parameters. Modulate almost any parameter with audio-rate speed, from internal modulation sources like LFOs, punchy envelopes, step sequencers, and a wide variety of MIDI signals.

MIDI

Icarus2 supports MPE (Midi Polyphonic Expression), which can add several additional dimensions of dynamic expression to the sounds.

We've also included midi-learn, so assigning CC's is as simple as a right mouse click.

Multistage-envelope-generators

Two MSEGs are available as additional modulation-sources. The MSEGs can be operated as LFO or envelope and allow you to create any shape you can imagine. The MSEGs offer highest precision, support frequencies up into the audio-range and have been designed with the aspect of musical usefulness.

Literally anything is possible: The MSEGs can be synced to BPM, sync with the arpeggiator or run freely. Triads or dotted rhythms are also supported. You can define loop-points and start points. You can delay or fade the MSEGs. You can move, add or delete points with your mouse. You can bend lines upwards or downwards to change their shape or even create precise rectangular curves. The MSEGs can be edited completely freely or you can snap points to a grid of a select-able size. It is also possible to draw triangles, bars or ramps.

Wavetable-editor

Icarus comes with the most powerful wavetable-editor available on the market. You can use it to create your own waveforms and wavetables or to edit the ones that are included to Icarus. A random-generator allows you to create an infinite number of new and musically useful wavetables with a single mouse-click. The spectral editor turns Icarus into an additive synthesizer, giving you detailed control over the partials and phase. You can also draw your own waveforms using the mouse.

Icarus' flexible, compact and open file format allows sound-designers and artists to easily create their own soundsets, waveforms and wavetables. Many common file-formats are supported. It is even possible to import and export wavetables or waveforms from-and-to other synthesizers.

In Icarus all wavetables are stored within your patches and songs automatically, so you don't have to worry about managing any additional files on your hard-disc.

The comfortable editor includes over 100 professional tools to tweak wavetables. You get basic features like, cutting, mixing and filtering, as well as advanced tools such as de-noising, enhancing, re-synthesis, vocoder, spectral modification and phase manipulation.

Rebuild any sound with a SINGLE mouse-click

With Icarus anyone can build fantastic sounds quickly and easily. Traditional resynthesis methods require a deep knowledge of sample-editing in order to achieve good results. It needs time-consuming pre-processing with a sample-editor and precisely tuned samples.

We have taken care of these problems for you and have developed completely new algorithms. Icarus' innovative wavetable-resynthesis can rebuild sounds with a single mouse-click!  It works with nearly any kind of audio-material and produces high-quality results. Simply click the button, select a wav file and Icarus will automatically create a patch, which sounds like the original. Optionally, you can further shape your sound with morphing, BPM-synchronization, time-stretching, the filters, the effects or any other module.

Traditional sample-import, auto-tuning, beat-slicing, pitch-shifting, noise-reduction and granular playback is also supported.

All waveforms, wavetables and samples are automatically stored within your patches or songs. This means you don't have to worry about any files missing on your hard drive or broken song-projects.

Why do you need vocals to create a chart-hit?

If you listen to popular songs you will notice that nearly all of them use a lot of vocals. We are naturally drawn to those sounds, as they are reflections of the spoken word. However, adding vocals to your tracks is a demanding task: You need a singer, a microphone, a recording studio, a wealth of experience and a lot of patience...

Icarus can take care of your work since it can sing chants for you. Simply pick one of the vocoder patches and play a melody. These sounds are not just a bunch of 'vocal samples'  - this is real speech-synthesis. These vocalic chants are never out-of-tune. Magically they can automatically synchronize to your song's BPM-rate!

With the built-in vocoder you can also create your own phrases. The top quality vocoder module has 1024 bands and is very easy to use: Simply click on 'Vocoder' and select a wav file containing speech. Icarus will analyze it and automatically create a patch. Optionally, you can further shape your sound with morphing, the filters, the effects or any other module. Playing the sound forwards, backwards, formant shifting, BPM-sync, time-stretching and looping is also possible.

Summary

* Icarus2 is a powerful synthesizer-workstation
* Icarus2 is also the most advanced wavetable-synthesizer on the market, but not limited to wavetable-synthesis
* The audio-engine can do 54 different synthesis modes and is able to produce all important synthesizer sounds
* The 3D-wavetable-synthesis allows a new dimension of dynamic expression
* High-end sound-quality with low CPU-requirement
* Easy-to-use interface with animated displays and context-sensitive help
* Huge sonic range
* Over 1600 presets by professional designers
* GUI with 12 sizes, 3 zoom-levels and 26 color-schemes
* Drag & drop modulation
* Drum-sequencer with 100 drum-patterns
* Powerful arpeggiator with autochord-support, shuffle and swing
* 3 x 53 effects, vocoder
* Glitch-sequencer
* 10x stereo hypersaw, unison, stacks, chords
* Polyphonic, monophonic, several legato modes
* The most powerful filter-section available on the market: Dual multi-mode filters with 62 filter-types and 8 distortion-types
* Customizable user-interface
* Expandability, modular

Features

* Sound engine with true stereo-architecture
* 3D-wavetable-synthesis: Waves can be morphed in 3 dimensions
* Multicore-processor support
* MSEGs with BPM sync (multistage envelope generators)
* Very flexible mod-matrix with precise modulation up to the audio-range
* Efficient patch-browser
* The most powerful wavetable-editor available on the market
* Spectrum-editor for editing single harmonics
* The re-synthesis allows you to rebuild any sound with a mouse-click
* A random-buttom allows you to create new sounds with a mouse-click
* Sample-import and automatic tuning
* 54 different synthesis-modes that can be combined
* Dual multi-mode filters with 2 x 62 filter types
* 2 x 8 distortion types
* 3 x 53 effects, vocoder, trancegate
* 10x stereo Hypersaw, unison, stacks
* Polyphonic, monophonic, legato
* Up to 256 waveforms per wavetable
* Unlimited number of wavetables and waveforms
* Random-generator for wavetables
* Midi-learn
* MPE-support (Midi polyphonic expression)
* Context sensitive help
* Drag & drop modulation
* Punchy envelopes and very fast LFOs
* Expandability
* Customizable user interface
* Can import and export samples, waveforms or wavetables in wav format
* Standalone version for PC
* Flexible preset-management
* Microtuning for enhanced chords
* Equalizer with dynamic bass-boost and psychoacoustic processing.
* Free support and updates

Modulators (all can be used simunaniously)

* 2 MSEGs (loop support, BPM-sync)
* 4 AHDSR envelopes
* 14 Decay envelopes
* 2 Hold envelopes
* 16 LFOs with sine waveform
* 3 LFOs with 45 morphable waveforms and BPM-sync
* Step-LFO / gate with custom-waveform
* Arpeggiator
* Various Midi CCs
* 4 Noise sources
* Key-split

Synthesis methods (can be combined)

* 3D wavetables / classic wavetables
* Resynthesis of samples
* Vocoder
* Hypersaw / stereo hypersaw / supersaw / unison
* Stacks / chords / autochord
* Additive
* Substractive / analog
* FM with up to 6 operators
* Speech-synthesis
* Formant-synthesis
* Wave-shaping
* PWM
* Sync
* Ringmod, AM
* Noise
* Physical-modeling
* Phase-distortion
* Granular
* Time-stretching
* Pitch-shifting
* Samples
* Harmonic-morphing
* FFT-filtering
* Lofi
* Import of waveforms and wavetables
* Many other innovative modes, exclusive to Icarus

Effect types (can be combined for new effects)

* Reverb Medium, Reverb Big, Reverb Plate, Reverb Glass, Reverb Dark, Reverb Infinite, Reverb Feedback, Reverb Spring, Reverb Trance, Reverb Cheap, Reflections
* Delay, Pingpong, Multitap, Delay Fat, Delay Dual, Delay Diffuse, Delay Band, Tape Delay, Echo
* Chorus, Smart Unison, Ensemble
* Phaser, Phaser Stereo
* Flanger, Flanger Stereo
* Vibrato, Vibrato stereo
* Autopan, Surround Pan, Rotary, Tremolo
* EQ High Cut, EQ Low Cut, EQ Param
* Saturate, Soft Clip, Hard Clip, Rectify, Bitcrush, Warp, Waveshape, Amp Sim, Multiband Distortion, Degrader, Multiband Degrader, Noise
* Compressor, Limiter
* Surround Encode
* Trancegate
* Glitch-sequencer with Repeat, Gate, Pan, Tremolo, Lowpass, Highpass, Bitcrush, Degrade, Detune, Pitchslide
* Feedback
* Microtuning
* Psychoacoustic processing
* Bass-boost

Filter types (can be combined)

* Low-pass: Digital 12dB, Digital 24dB, Butter 24dB, Curtis 12dB, Curtis Analog, Tone2 24dB, Tone2 Analog, Tone2 Scream, 303 18dB, 303 Analog, Chain 6-48dB, Elliptic, Octave, Shaped, AM, HighQ
* High-pass: Digital 12dB, Analog 12dB, Analog 24dB, Chain 6-48dB
* Band-pass: Digital 12dB, Digital 24dB, Analog 12dB, Analog 24dB, Boobs
* Equalizer: Notch, Peak Tight, Peak Medium, Peak Wide, Shelf Tight, Shelf Wide, Bandlimit
* Vocalic: A, U, I, IEA, AOU, IYU, IEAOU
* Comb-filters: Phaser 2x, Phaser 2x FB, Phaser 3x, Phaser 3x FB, Comb+, Comb-
* Fractal-filters: LP 1, LP 2, LP 3, LP 4, FO 1, FO 2
* Ring-modulation: Ringmod, LP, LP2, FM Lowpass, AM
* Pysical-modeling resonators: Guitar, Flute, Odd, Even
* LoFi: Resampling, Sample & Hold

System requirements

PC: Windows XP / 7 / 8 / 10 / Vista  (32 bit or 64 bit)

PC formats: 32-bit VSTi, 64-bit VSTi, standalone

Mac: MacOS 10.7 or higher / MacOS 11; Intel CPU or Apple M1

Mac formats: 64-bit VSTi, 64-bit Audio Unit (AU)  
1 GB free hard-disc space

An internet-connection is required for the download and activation. To be able to run the software it is not necessary that your computer is connected to the internet.