

# Sugar Bytes Factory

€139

PC MAC

Never ones to take the path most trodden, the German geniuses unleash yet another mould-breaking plugin, this time an electrifying polysynth

> Sugar Bytes' new synth is a semimodular beast that embodies the company's unorthodox approach to plugin design and puts deep modulation at the top of the feature list.

Far from your standard virtual analogue fare, Factory's (VST/AU/AAX/Standalone) two identical main oscillators offer a selection of ten wave-generating models, each populating the panel underneath the selection menu with its own knobs and menus. The models range from synced square and saw stacks to phase mod, granular sampling and wavetable engines (PWM, Sync, Formant and Drone), and between them deliver an extraordinary array of highly editable raw tones, with the straightforward controls positively inviting real-time manipulation and modulation.

The main oscillators are supplemented by a sub oscillator (sine or square wave, tracking either main oscillator or ring modulating the two), and a noise oscillator with five colour

options. All four oscillators are independently routable to a resonant filter (11 modes, including 2-, 4- and 8-pole low-pass, Midboost, Comb and Vowel) and plumbed through a Drive module with Tube, Diode and Sine algorithms, and an optional high-quality mode.

## Model citizen

Factory's oscillators are vibrant and spectacular enough on their own, but the beating heart of

this instrument is the modulation section. Eight source slots can be loaded to output any of Factory's Modulators (see below), the usual line-up of MIDI signals and the levels of all four oscillators, while ten target slots enable modulation of all oscillator and effects controls, the filter, sequencer tempo and much more. Having chosen your source and target using the menus on the X and Y axes of the matrix, dragging up and down on the square at which they intersect raises and lowers the modulation depth, as indicated by an expanding/shrinking coloured dot - blue for positive modulation, pink for negative. While we do appreciate the graphical approach taken here, we'd like the option to swap the dots for regular numerical read-outs added.

Visual feedback on each assignment is given via an animated collar or strip around or alongside the target control in the main GUI, and modulation depths are modulatable, too, in the

"The beating heart of this instrument is the modulation section"

“Factory’s Morph fader enables interpolation between two complete parameter states, and is assignable to a MIDI controller”

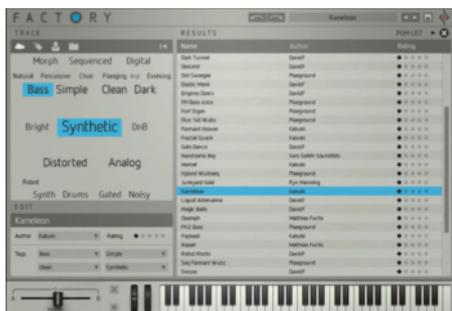
excruciatingly titled Twerk section, with its Tweak/Mutate/Target knob. In Tweak mode, the knob adjusts all modulation depths in the matrix collectively, and applies a ‘via’ mod source selected from an extensive menu of signals (various MIDI, all of Factory’s Modulators and Audio Out) to them. Mutate mode does the same but with a degree of randomisation. And in Target mode, the via mod source is shuttled through the matrix using a knob, letting you shift the via modulation around between assignments in real time – odd, but kind of cool.

The mod matrix can be randomised in two ways. Clicking the die button at the end of the source or target row/column randomises the contents of the slots in that row/column, while dragging on the larger die icon, top right, progressively adds more randomised modulation depth dots to the matrix the higher it’s raised.

Factory’s two ADSR envelopes, two LFOs and sample and hold module are housed in the Modulators tab. The LFOs work in mono or polyphonic modes, while the S+H module features separate input signals for the trigger and sample source, opening it up to all sorts of complex burlblings.

## Maximum effect

Factory is no slouch in the effects department, either, with three freely reorderable insert slots hosting a selection of 17 modules – reverbs, delays, filters, phaser, chorus, and more. Every effect has a concise but transformative bank of up to four controls, and they all sound great, as you’d expect from the creators of the fabulous Turnado. All of their parameters can be modulated, too, as mentioned, although you can only target each effect as a single unit, turning modulation on or off for each of its parameters, rather than discretely pointing, say, an LFO and an



The preset browser uses a visual tagging system to show the relative proportion of sounds in each category

envelope at two separate knobs in the one effect.

Finally, Factory’s Morph fader enables interpolation between two complete parameter states, and is assignable to a MIDI controller for even more internal movement. The enormous preset library uses a deep and informative tagging system, and does a superb job of showcasing what the synth is capable of.

## Factory records

As you might expect, Factory is most at home making the kinds of highly mobilised, animated noises that only a synth with this level of modulation flexibility can. Highlights are the well thought-out oscillator models, the intuitive modulation matrix, the sequencer and the effects, but everything here comes together brilliantly in an instrument that’s surprisingly easy to use – given how complicated it invariably sounds – and a whole lot of fun. While we wouldn’t recommend it as the first choice for anyone seeking a general purpose workhorse synth to cover all the basics, for enormous, weird, heavily modulated and rhythmic sounds of all kinds, it’s a winner, with a character all its own. **cm**

**Web** [www.sugar-bytes.de](http://www.sugar-bytes.de)



With 36 step envelopes to choose from and four tracks, the mod sequencer is jaw-droppingly groovy

## Sequencer and Articulation

Factory’s most exciting modulation source is its four-track sequencer. Each track sequences a pattern (looped or one-shot) of up to 32 steps, with step lengths from one bar to 1/64, and the Global Swing control applies shuffle to all tracks. Every step in the sequence is filled with one of 36 envelope shapes, from the basic flat line to a variety of curves, ramps and multi-triggers. Seriously intricate sequences are the order of the day, and if you can’t be bothered to program your own, the Random button can do the job for you.

The Articulation tab, meanwhile, combines Pitch Factory, Intonation and Arpeggiator sections. Pitch Factory

contains the standard global Tune, Transpose, Glide and pitchbend range controls, as well as scale and root note selectors for snapping MIDI input to a particular key, and unison detune. The Intonation section applies an upward or downward pitchbend leading into each note, tweakable in terms of speed, depth and random variation, and with three shapes to choose from. Lastly, the Arpeggiator turns chords into melodic lines with all the expected functions (Direction, Range, etc) but furthers Factory’s wildly creative agenda with sequencer gating, random note dropping and selection, and note ordering via the modulation matrix.

## Alternatively

**Xfer Records Serum cm213 » 10/10 » \$189**

One of the greatest synths ever made, Serum outclasses Factory but isn’t as easy to use

**Native Instruments Massive cm107 » 9/10 » £129**

Native’s stone-cold classic is very big on modulation

## Verdict

**For** Powerful, interesting oscillators  
Amazing & intuitive modulation system  
Brilliant Sequencer & Articulation sections  
Quality effects  
Sounds genuinely ‘different’

**Against** Many presets are too loud  
No numerical mod depth display

An innovative, esoteric synth that’s still easy to use and quick, Factory is one that sound designers and modulation nuts will love

**9/10**