

Falcon Singles - Crotales for Falcon

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Installation

As there is no default location for 3rd party sound libraries for Falcon, you can just install the folder "Crotales" which you extracted from the zip-file anywhere on your system, preferably on a fast external drive, if you have one available. Then you just locate the folder "Crotales" in the Falcon browser under "Devices", add it to your favorite places and load a program from the "Programs" folder, or a sample from the sample subfolders, or a wavetable from the wavetable folder or an image into the wavetable synth from the Images-folder.

You can also drag and drop programs directly from the Finder into "Parts" in Falcon.

License agreement and terms of usage

This license agreement is between you (the licensee) and me (Simon Stockhausen).

1.) The licensee must not distribute the patches, samples, wavetables and images from ***Falcon Singles - Crotales***, resample them, copy or otherwise replicate the patches, samples, wavetables and images from this sound library in any commercial, free or otherwise product. That includes sample- and audio libraries and patches for other samplers and sample- or wavetable-based synthesizers. You can of course create such derivatives for your own musical work as long as these derivatives are only distributed in the context of musical work or sound design.

2.) The license to the sound library ***Falcon Singles - Crotales*** may not be given away or sold, it is not for resale (NFR).

Description and content

Crotales are rare orchestral percussion instruments not often used in classical music, the instrument sampled for this library ranging from C5 – C7 (C3 – C5 in classical terms). Tuned chromatically its distinct and very bright bell-like sound cuts through even at low velocities. For this soundsset the instrument was multi-sampled with 2 articulations, bowed (violin bow) and beaten (special mallets with a metallic tip). There are also tempo-synced loops, improvised textures and tremolos, these samples were then used as a starting point for producing tonal soundscapes, musical beds and more experimental sound textures, often involving Falcon's multi-granular oscillator and combining it with FM, pluck, wave-table and analog synth oscillators.

Up to 20+ Macros and switches are installed in each patch, some patches also use aftertouch, providing detailed and creative control over volume envelopes, filtering, amplitude- and pitch modulations, dynamics, stereo animation, layer leveling and more. All patches use some sort of background image in the UI, split patches have colored key-zones in the Falcon keyboard for easier navigation.

The included samples were mostly borrowed from my sound libraries [Aureus Ventus](#) for HALion and [Colliding Worlds](#) for Groove Agent (distributed exclusively by Steinberg), users holding a license to *Aureus Ventus* can purchase Falcon Singles - Crotales at a 40% discount.

Specs:

- 23 patches (including 1 variation).
- 936.2 MB of samples (stereo/48 Khz/24 Bit), 3 wavetables, and 2 background images for the interface. Library size in total: 943.3 MB unzipped.
- The content is not encrypted, so you can use the samples and wavetables in other samplers and synths or directly in your DAW.
- Requires the full version of Falcon 2.5.3 or higher, does not work with the UVI player.

All video demos for this library are [here](#).

All audio demos are [here](#).

CPU

The multi-granular engine with many grain streams, the wavetable synth with many unison voices and especially the IRCAM-Stretch oscillator can be somewhat CPU-hungry, so if a patch puts too much strain on your system whilst tracking, reduced the overall polyphony in Falcon (click the "Edit" tab, at the very top change "Poly" -> number of possible voices) and/or reduce the release time (all patches have a dedicated Macro assigned to "Release"). Also when mixing and not tracking I would advise you to raise the sample buffer in your DAW, as latency is not an issue in that case.

Patchlist

All patches have between 10+ - 20+ Macro controls, switches and often the modulation wheel assigned, some also use channel aftertouch.

All playing tips and comments from the alphabetic patch-list below (to be completed) can also be accessed via the Info-tab in the Falcon UI.

C3 refers to the middle C on a piano (C1 in classical terms).

AT = Aftertouch, VEL = velocity, MW = modulation wheel, L1 = layer 1, KG = key-group, KS = key-switch, WT = wavetable, FS = frequency shifter

Patch Name	Description
Accent Grains used in this audio demo	L1 mapped from C1 – C6: Two layered crotales accents isolated from a longer sequence, looping back and forth in multi-granular mode (control grain speed/pitch randomization with Macros), layered with two more accents (also looped) in sampling mode panned hard left/right - control sustain level with M;acro so the loops become audible. L2 mapped from C0 – C7: FM synth with dedicated volume Macro, very VEL-sensitive, activate LP filter envelope with switch, add chorus FX with Macro, MW adds vibrato.
Bowed Crotales featured in this audio demo	Bowed crotales, sampled chromatically between C5 – C7, 2x round robin per note, mapped from C2 – C5 (lowest note extended down an octave). Control sample start modulation via VEL by engaging the assigned Macro or modify sample start with another Macro. The original tuning is 443 Hertz, a Macro lets you fine-tune the samples between 440 – 443 Hz. Dial in Rotary FX (parallel routing in FX rack) and control Rotary speed with two installed Macros.
Bowed Crotales Granular featured in this video	Bowed crotales, sampled chromatically between C5 – C7, 2x round robin per note, mapped from C2 – C5 (lowest note extended downwards to C1), playing in multi-granular mode, Macros for grain position/speed/grain size/amount of pitch randomization are installed. As the original tuning is 443 Hertz, a Macro lets you fine-tune the samples between 440 – 443 Hz. Dial in Rotary FX (parallel routing in FX rack) and control Rotary speed with two Macros, add amplitude modulation (with speed modulation via envelope) with Macro.
Bowed Crotales Synth used in this audio demo	L1: Bowed crotales, sampled chromatically between C5 – C7, 2x round robin per note, mapped from C1 – C5 (lowest note extended down two octaves). Control volume with Macro, dial in sample start modulation via VEL by engaging the assigned Macro or modify sample start with another Macro. L2: WT synth using a WT with waveforms extracted from vocal samples passing through a tuned Phasor-filter, control volume/index modulation speed/unison detune with Macros, tune it up one octave with switch. Dial in Rotary FX (parallel routing in FX rack) and control Rotary speed with two installed Macros (speed is also assigned to MW).
Bowed Major Cloud	Processed bowed crotales phrase, multi-granular oscillator in L1 layered with an analog synth drone in L2. Macros for controlling volume, grain speed, density, position, amount of position modulation via AT, amount of grain spread modulation and tempo-synced amplitude modulation are installed. The synth layer has Macros for volume/amount of HP filter resonance and a switch for tuning it up an octave.
Bowed Phrase Granular KS	Two key-switchable bowed crotales phrases (in minor), multi-granular oscillator - layered with a re-sampled analog stack unison pad in L3 which has its dedicated volume control. Macros for grain speed/size/pitch randomization/density/amount of grain spread modulation/grain position, grain position modulation via AT, hybrid filter modulation and LP cutoff are installed. Engage frequency shifter (per note) with a switch, control mix FS Coarse with Macros, switch it off to save CPU. KS1 (C0) -> phrase 1 + synth, KS2 (D0) -> phrase 2 + synth, KS3 (E0) -> both phrases + synth.

Patch Name	Description
Bowed Scape FX Granular KS used in this audio demo	Two key-switchable tonal soundscapes, multi-granular oscillator, Macros for grain speed/size/pitch randomization/density/amount of grain spread modulation/grain position, grain position modulation via AT, hybrid filter modulation are installed. Engage frequency shifter (per note) with a switch, control mix FS Coarse with Macros, switch it off to save CPU. KS1 (C0) -> phrase 1, KS2 (D0) -> phrase 2 , KS3 (E0) -> both phrases.
Cosmic Crotales	Cosmic soundscape combining 4 layers of sound, each one using some sort of tempo-synced modulation: L1: Processed, noisy crotales soundscape, multi-granular oscillator L2: Tonal crotales soundscape, multi-granular oscillator Macros for controlling grain position/speed are installed. L3: Synth drone with sub-osc combining analog and FM oscillators. L4: The last accent and tail of the soundscape used in L2, sampling oscillator. Each layer has its dedicated volume Macro, add an effect chain inside Feedback Machine with the "Space FX"-Macro.
Crotales 4VEL	Crotales played with metallic beater, instrument sounds 2 octaves higher than mapped (C3 = C5). 17 pitches were sampled at 4 velocities between C5 – B6, range extended to C2 (C4) in the low end. As the sampled instrument was tuned to 443 Hz, tune it down to 440 Hz with Macro, randomize pitch/pan with Macro, add pitch modulation/control modulation speed with Macros, switch on/blend in frequency-shifter (per note) with switch/Macro (switch off to save CPU).
Crotales FM Synth used in this audio demo	The patch above extended in the low range to C2 (sounding C4), layered with an FM synth which has its dedicated volume control.
Crotales Articulation Mix used in this audio demo	Instrument sounds 2 octaves higher than mapped, the pitches between C5 – C6 were copied to the octave below in order to extend the instrument range. Original tuning is 443 Hz, adjust overall tuning with Macro. L1: Bowed crotales, sampled chromatically between C5 – C7, 2x round robin per note, control volume with Macro, dial in sample start modulation via VEL by engaging the assigned Macro (adjust amplitude VEL sensitivity accordingly if needed) or modify sample start with another Macro. L2: Crotales played with metallic beater, 17 pitches were sampled at 4 velocities between C5 – B6, control volume, increase attack time, randomize pan position (per note) with Macros. Add vibrato to both layers with Macro (also assigned to MW).
Crotales Loops High CPU	2 x 4 tempo-synced crotales loops (IRCAM Stretch oscillator -> high CPU) split across the keyboard (2 octave range per loop with overlapping split points), KS1 @ A-1 selects loops in major tuning, KS2 @ B-1 selects loops in minor tuning. Balance volume of transients, tonal and noise components with three Macros, as the original tuning of the instrument is 443 Hz, use Macro to tune the loops down to 440 Hz.
Crotales Loops Low CPU	2 x 4 tempo-synced crotales loops (stretch oscillator) split across the keyboard (2 octave range per loop with overlapping split points), KS1 @ A-1 selects loops in major tuning, KS2 @ B-1 selects loops in minor tuning. As the original tuning of the instrument is 443 Hz, use Macro to tune the loops down to 440 Hz.

Patch Name	Description
Gold	Tonal crotales soundscape (in major), multi-granular oscillator layered with the same sample in normal sampling mode and a WT synth in L2 using a WT extracted from a crotales texture, passing through a tuned Phasor and comb-filter, the synth reaches down to C0, the sounds in L1 play down to C1. Control grain speed/density/position/amount of grain spread modulation and grain position modulation via AT with Macros, reverse the grains with switch, MW detunes the grains. The sampling oscillator and the WT synth have their dedicated volume controls installed, control chorus FX depth for the synth with Macro, control overall LP cutoff with Macro.
Granular Phrase Couples KS featured in this video	Two key-switchable bowed crotales phrases layered with their processed counterparts, multi-granular oscillators, an analog synth drone (with sub-osc) adds the root note, each component has its dedicated volume Macro installed. The granular layers have Macros for controlling grain speed/position, grain pitch randomization, amount of grain size modulation and re-triggering LP filter modulation installed. Add tempo-synced amplitude modulation with the "Pulsation"-Macro, blend in Feedback Machine-weirdness with the "Stranger Mix"-Macro.
Granular PhraseQuencer used in this audio demo	L1: Crotales sequence in minor, multi-granular oscillator, a tempo-synced random LFO modulates grain position, more tempo-synced modulations for size/density/spread/position randomization via LFOs/step sequencer are programmed. Macros for volume, grain pitch randomization, pan modulation and amount of tempo-synced Phasor filter modulation are installed. L2: Two synth sounds, one in the high range with a gate sequence in 3/4, the other a sub-bass adding accents every 4 beats, both have their dedicated volume controls, add tempo-synced filter modulation to the high synth with Macro, tune up the sub-bass an octave with switch, add chorus FX to both components with Macro.
Interval Scan used in this audio demo	The sample of slowly bowing two successive intervals on a crotales instrument with two bows, layered in two multi-granular oscillators, grain position is modulated by a re-triggering and tempo-synced LFO, KG1 scans through interval 1, KG2 scans through interval 2. Add slow pan modulation (per note) with Macro, add ring modulation FX and tempo-synced RM modulation with Macros, add re-triggering LP filter modulation with Macro. Fragmentize the grain stream with the "Particle-Ize"-Macro. MW randomizes grain pitch.
Orbit Chords	Processed tonal crotales soundscape, multi-granular oscillator - layered with its own reverb tail in sampling mode and an analog stack synth with SYNC-modulation, the tail and the synth have dedicated volume Macros installed. Control grain speed and amount of grain detune modulation with Macros, add LP filter modulation to the soundscape and the tail with Macro, add tempo-synced pitch modulation to the tail with Macro, control amount of SYNC-modulation with Macro. The "AmpMod"-Macro adds tempo-synced amplitude modulation to all components.
Physical Pluck used in this audio demo	Pluck synth, unison detune with 3 voices plus an analog stack synth inside the same KG - layered with crotales accents in L2 with random pitch modulation to add some shimmer to the sound. Control volume of L2 with Macro, add LP filter envelope (VEL sensitive) to the main sound with Macro.

Patch Name	Description
Resonant Pearls used in this audio demo	Pluck oscillator using a crotales loop to excite the resonators, the signal is passing through an FX rack (parallel routing), blend in hybrid filter modulation and frequency shifter with Macros, add FS modulation with Macro. Add pan modulation (per note played) with Macro, more Macros for controlling EQ, flanger, delay, reverb and limiter are installed.
Table Trio used in this audio demo	Three WT oscillators using the same WT of a re-synthesized/wave-table crotales accent, WT index modulation in each oscillator has a different phase offset, control index modulation speed with Macro, pan the three oscillators hard L-C-R with the "Stereo"-Macro. Dial in amount of FM modulation (VEL sensitive) and tempo-synced phase distortion/amplitude modulation with Macros. Parallel hybrid filter modulation (FX rack on layer level) can be dialed in with Macro.
Tinkle Stars	Two layered pluck oscillators using a crotales sequence to excite the resonators, use the "Stereo"-Macro to pan the two KGs left/right, add tempo-synced amplitude and Inharmonicity modulation with Macros, blend in frequency shifter/control its coarse frequency with Macros.
Tremolo Workshop	L1: Crotales whole-tone tremolo, multi-granular oscillator, slow tempo-synced amplitude modulation (4 beats) grain position and other parameters are modulated by random LFOs, increase grain size/density with the "Grain Sustain"-Macro, randomize grain pitch with Macro, reverse grains with switch. L2: FM synth with tempo-synced modulations, add pan modulation with "FM PanMod"-Macro. L3: Pluck synth with tempo-synced modulations using the above crotales tremolo to excite the dual resonators. Each component has its dedicated volume Macro, add parallel hybrid filter/phaser modulation with Macro.

Please enjoy the sounds!

Simon Stockhausen, February 18 - 2022