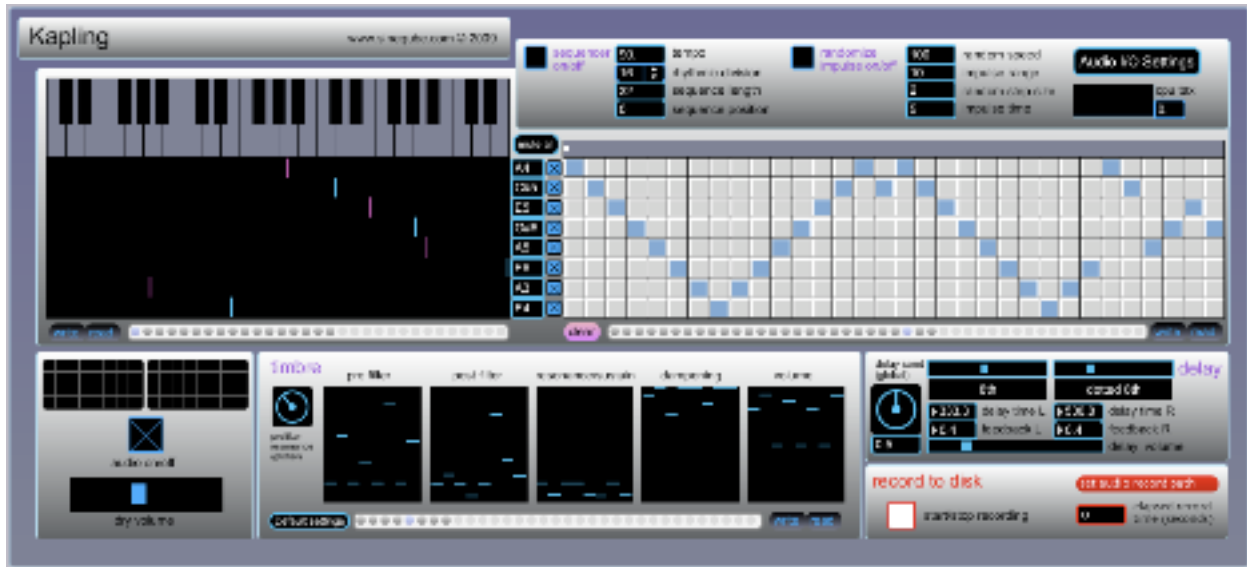


Kapling User Manual

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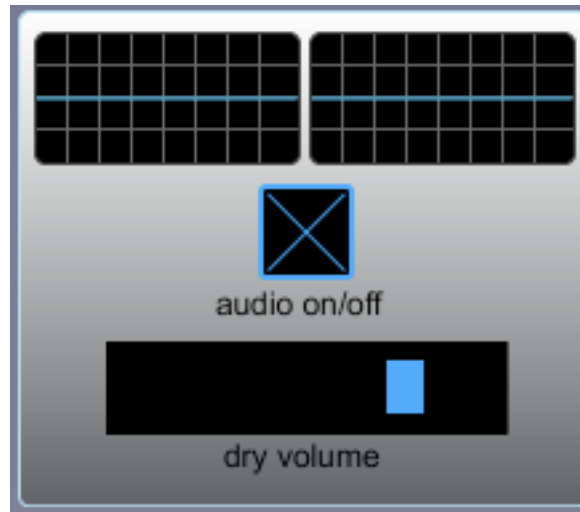
Thank you for downloading Sineqube's Kapling (pronounced "kuh-pleeng"). A brief read through this manual should get you up and running in no time. Kapling is a simple little physical modeling synthesizer based on the Karplus-Strong algorithm. Kapling uses this method to attempt the emulation of resonant bodies, like a string being plucked, or melodic percussion instrument being struck. Eight independent voices are triggered by a 32-step sequencer, with a variety of parameters set up to help you sculpt new timbres in realtime. Kapling also features a tempo-synced stereo delay and recording to disk.

In simpler terms, Kapling can help you make twangy, boingy, klunky tones.

Key features:

- 8 independent synth voices
- 32-step sequencer
- realtime timbral controls
- randomized initial impulse to provide natural variation over time
- tempo-synced stereo delay
- store presets for pitch, sequences, and timbre, and export them to disk
- record output directly to disk as an aiff file
- cpu monitor helps keep track of the tax on your system
- each voice has a hotkeyed mute switch for ease of live use
- freeware! (but donations are welcome @ www.sineqube.com)

I. Power



(Kapling comes with a friendly robot)

The “audio on/off” switch engages or disengages Kapling’s sound. This can also be triggered with the computer spacebar. The eyeballs are scopes to display the left and right channels of audio. The tongue controls the dry volume level.

II. Sequencer and settings

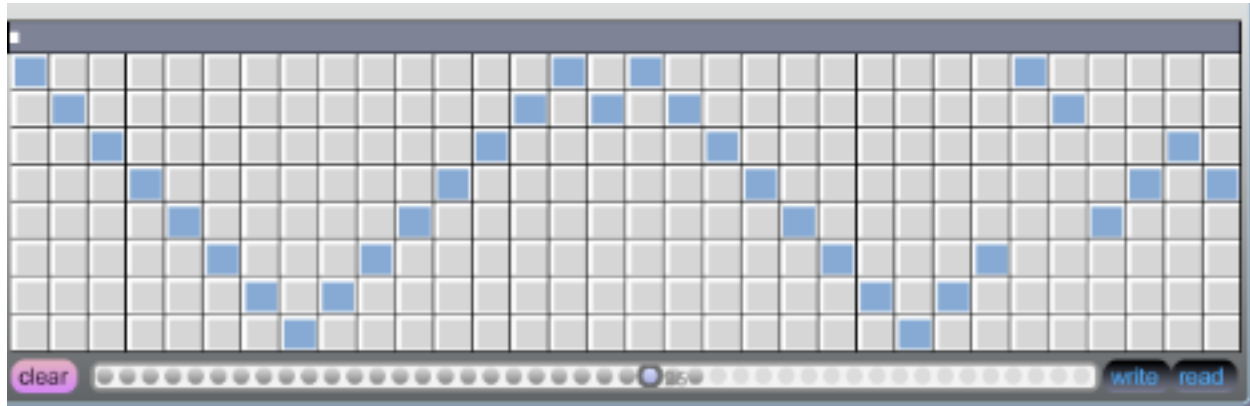


Next up, try turning on the sequencer by clicking on the toggle switch on the left of the sequencer section. To the immediate right of this, you can adjust the tempo, rhythmic division of the beat, maximum length of the sequence, and view the current position within the sequence.

Further to the right, you will find Kapling’s initial impulse randomizer, which changes the starting envelope of each voice’s noise burst, which in turn generates each voice’s resonance. You can set the speed of this randomization from a very short 100 milliseconds to two full seconds between new impulse times. The impulse range and random step size determine the maximum envelope time for the initial noise burst, and the range of jumps between new choices, respectively. In other words, you can set up Kapling’s voices to be triggered by almost inaudible 1-second noise clicks, or much longer (up to 500 ms) washes of sound. Experiment with both ends of the spectrum to create percussive tones, plucked strings, bowed noises, and a variety of timbres in between. The final box displays the impulse time, but can also be set manually if the randomization feature is switched off.

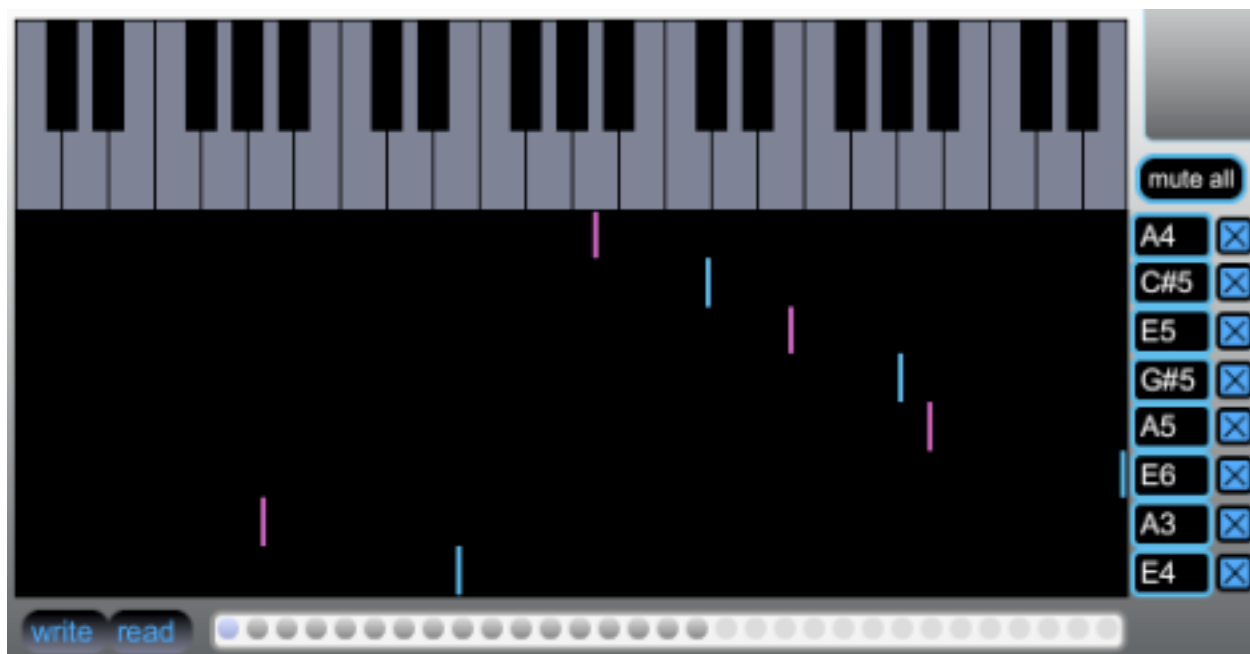
The last part of this section allows you to tweak your computer's I/O settings, and displays a meter to indicate the approximate tax on your system's resources. (Note: on a 2.2ghz Macbook with 2gb ram, Kapling averages around 15% on the cpu meter).

III. Step editor matrix



This is where you can input your sequence of triggers for each of Kapling's 8 voices. Simply click when you want a voice to be triggered, or click again to erase that trigger. You can use the "clear" button to start from scratch. To store your sequences to preset slots, shift-click on one of the available circles, and then click to recall any previously stored sequences. You can save your presets to disk using the "write" button, and load them from disk with "read."

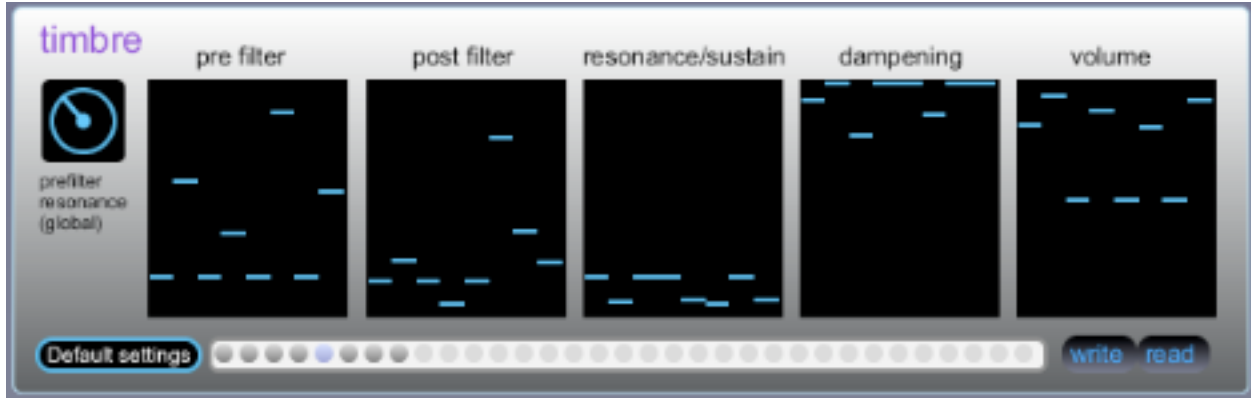
IV. Pitch control



The keyboard at the top of this section acts as a global selector and will select the same pitch for all 8 voices. To set them individually, use the multi-colored set of sliders just beneath the keyboard. The current pitches for each voice will be reflected in the boxes on the right. The 8 toggles to the right of the pitch names are mute switches for each

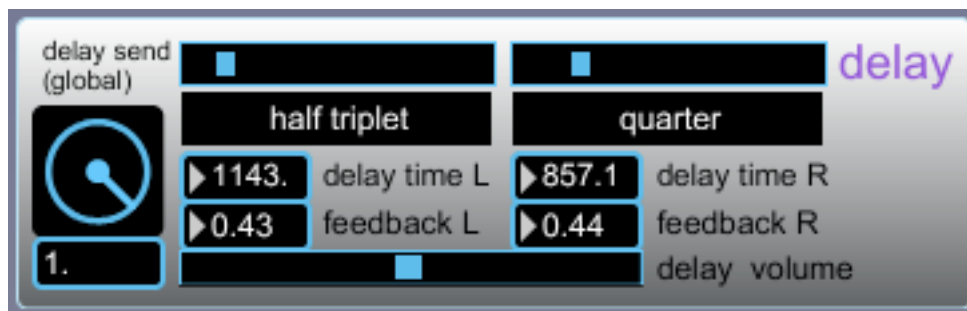
voice, which are also mapped to hotkeys -- shift+numbers 1-8. Use the hotkey shift+o to mute/unmute all voices or just click on the "mute all" button. There is also a preset bank for pitch selection here, with the same design as the step sequencer.

V. Timbre



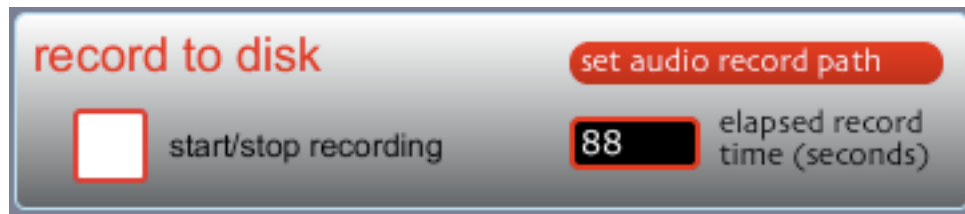
The "pre-" and "post-" filter controls adjust the amount of filtering before and after the initial noise impulse generates each voice, with a global prefilter resonance dial to the left to boost frequencies around the prefilter cutoff. The "resonance/sustain" reduces the amount of post-filter resonance for each voice as the sliders go up, while the dampening of the timbre is increased as the sliders go down. Try the extremes of both to get a feel for their effect on the overall sound. Individual volume control and a preset section are available here as well. To reload the default timbres, simply click "default settings" on the left side.

VI. Tempo-synced stereo delay



The delay section is fairly self-explanatory. There are two sets of parameters -- one for the left and one for the right channel. It should be noted that you can defeat the tempo-syncing by manually adjusting the "delay time" boxes with your mouse. You can create some nice comb-filtering effects with very low values this way. However, once you choose a new tempo in the sequencer section, the delay will resync to that tempo.

VII. Recording



Another pretty straightforward section, this is where you can record Kapling's output to your hard drive as an aiff file. Make sure you first select a name and location for the recording by clicking "set audio record path." Once this is done, click the red and white toggle to start and stop recording. The elapsed recording time will be displayed in the number box to the right of the record toggle. For subsequent recordings, don't forget to set a new file name before clicking the record toggle again.

Additional notes:

- Kapling is capable of some very gentle, but also quite abrasive sounds. Please use caution when adjusting parameters. Protect your ears!
- Kapling features an extensive hint system on almost every control displayed on the interface. Hover your mouse over a control to get an idea of what each parameter does.
- The menu bar is not utilized in controlling Kapling. All features are directly controllable from the main interface window.
- Kapling was made with the amazing, all-powerful Max/MSP modular programming environment. For more information, please visit <http://www.cycling74.com>
- Kapling is the property of Sineqube. Any unauthorized redistribution or financial gain acquired as a result of its resale is just mean because it's freeware. So be nice or lawyers will become involved.
- Sineqube bears no responsibility in regards to the well-being of your computer. Use the software at your own risk, and leisure.
- I lack the resources to test the program on all possible hardware configurations, but Kapling has run for days on end without crashing on a couple of MacBooks, 2Ghz and 2.2Ghz.
- Kapling is completely free, but if you like what I'm doing, check out my albums, *String* and *Thread* on iTunes or Amazon, or leave me a donation to encourage further development. Even small amounts are helpful.
- Go to www.sineqube.com for more information about me, my music, and the software.
- I lack the time, energy, and resources to offer technical support of any kind, so I regrettably cannot answer emails asking for tech support.

- But if you're making music with the program, by all means, please get in touch. I absolutely love hearing what people are doing with my work. Contact: k at sineqube dot com.

Special thanks:

- j
 - the beta team
 - everyone at Cycling 74 for such a mind-blowing programming environment
 - everyone that has supported sineqube music and made donations
- and of course, you, the user! the beautiful sounds you make with my programs put the sincerest smile on my face!

Best wishes!

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