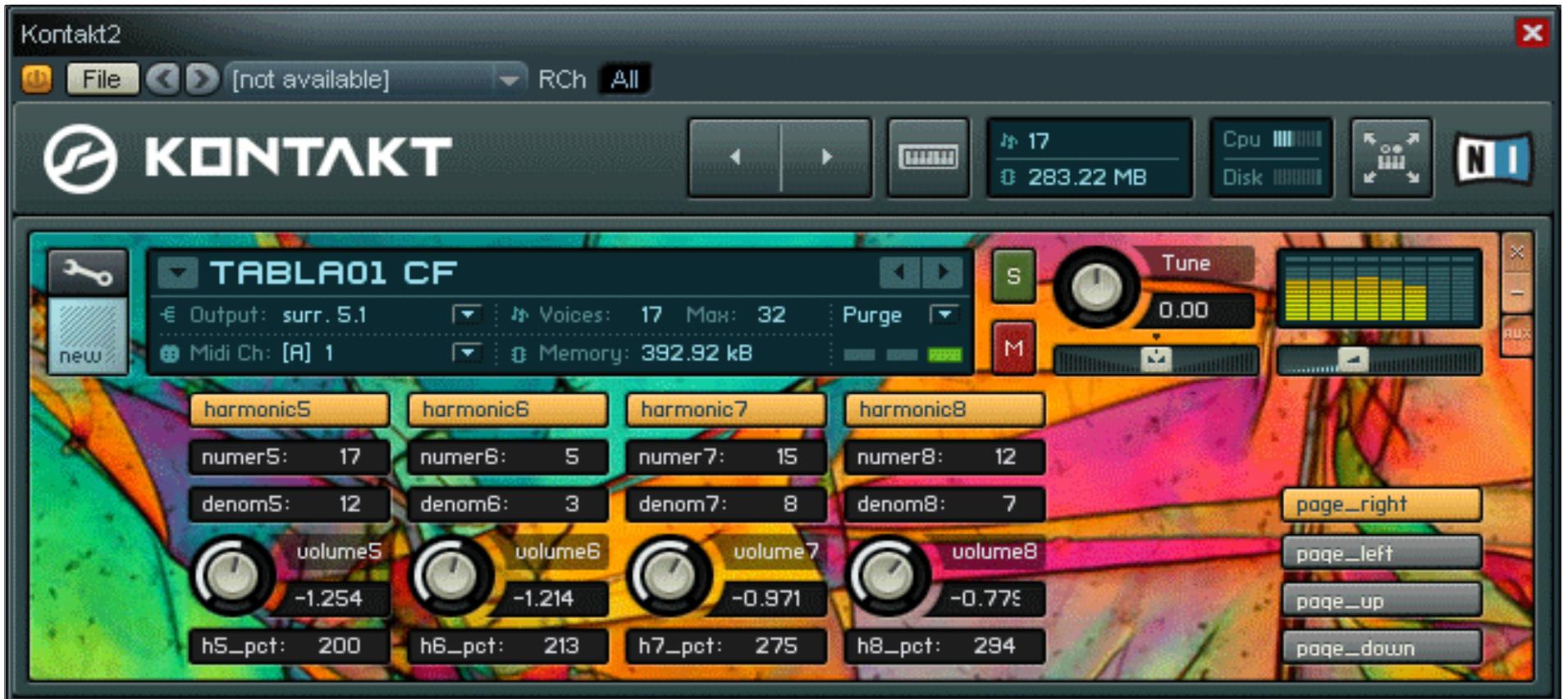




Modulation sources are: expression pedal, breath controller, and mod wheel. Any integer up to 349 can be selected for the numerator or denominator of a harmonic. The volume knob for each voice can be set to a start offset of -40,000 millidecibels to 10,000 millidecibels from the original sounding note. Voices return to the base setting when the midi control channel value falls to 0. Preset options facilitate rapid setup of a crossfade. Crossfades can be linear, cosine/sine, or freely drawn. The xfade knob controls the degree of harmonic rise to balance the number of active harmonics vs. the fundamental.

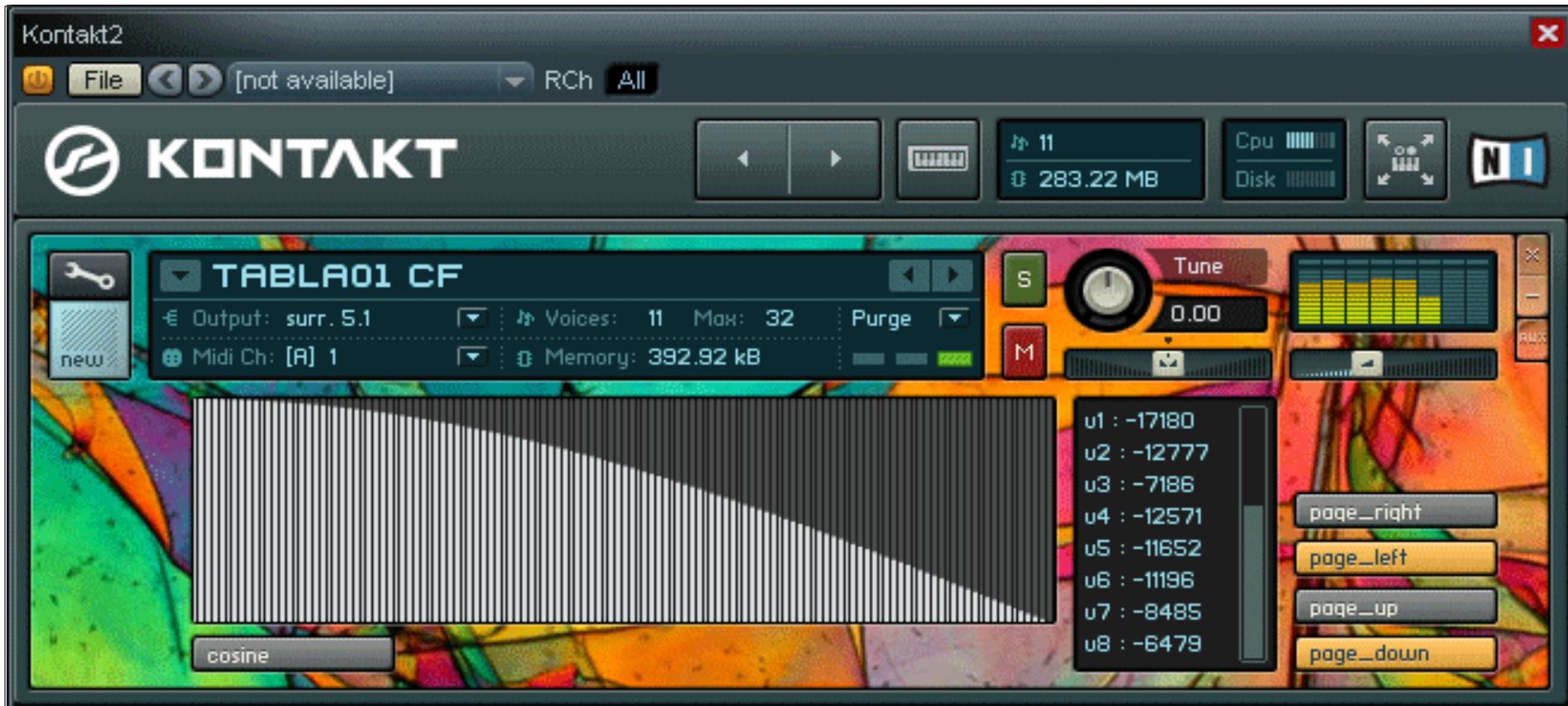
Preset selections are: 1)Volumes – sets fundamental to nearly full volume and all harmonics to barely audible volume. Default volumes can be adjusted while 'Volumes' is selected. 2)Volpreset – same as 'Volumes'but doesn't change existing setting. 3)Fades – sets fade curves to cosine/sine and sets voice percents to 100. 4)CC - Makes a set of cc channel assignments 5) Perfview On – enables performance view the next time the instrument is loaded 6)Perfview Off – reverse of Perview On 7) Clear – reverts to linear fade and makes alternate cc assignments.



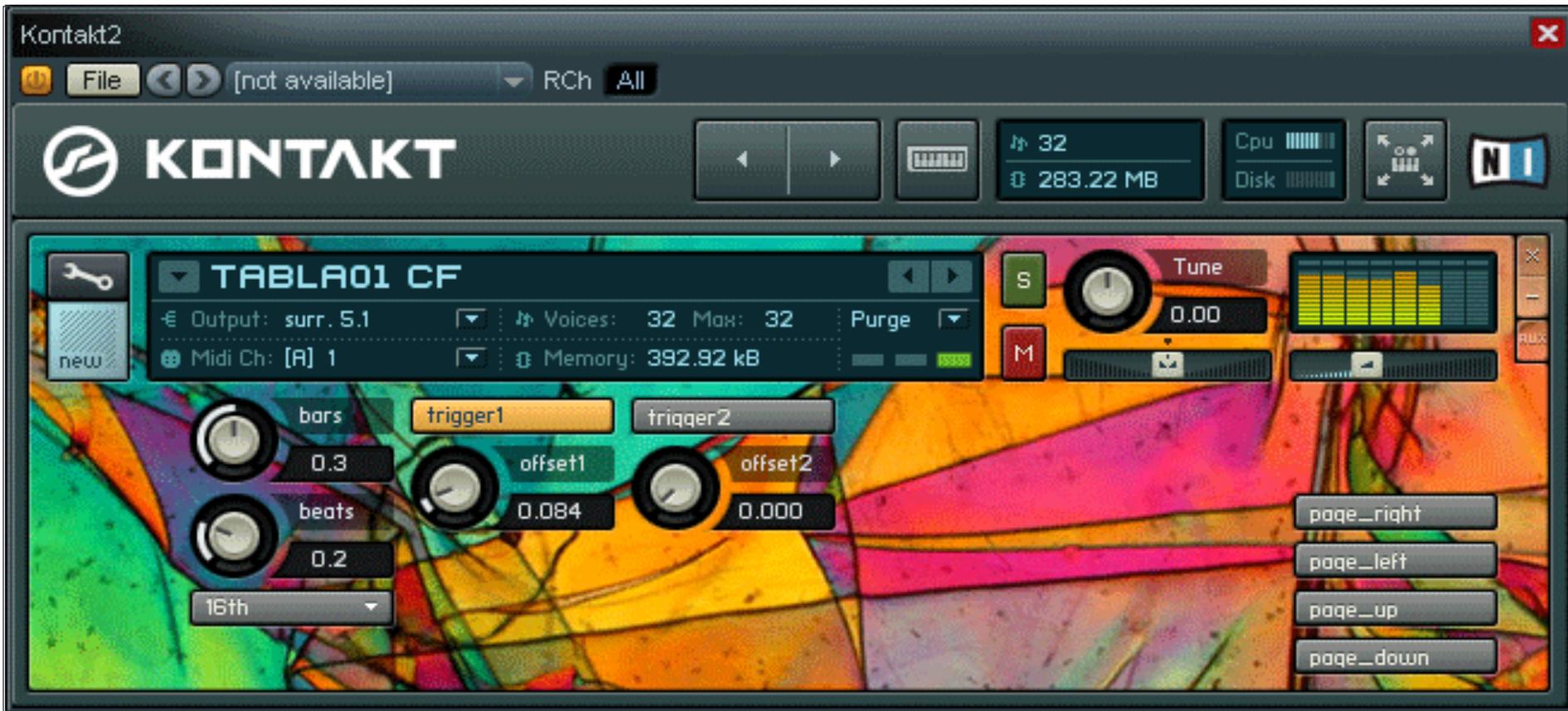
Each harmonic voice also has a percent multiplier which scales its rise and fade against the underlying curve for the harmonic voices, so the mix between harmonics can vary during a crossfade. Harmonics can be set below the fundamental as well as above it. If more than eight harmonics are desired, additional instances of an instrument can be opened in Kontakt.



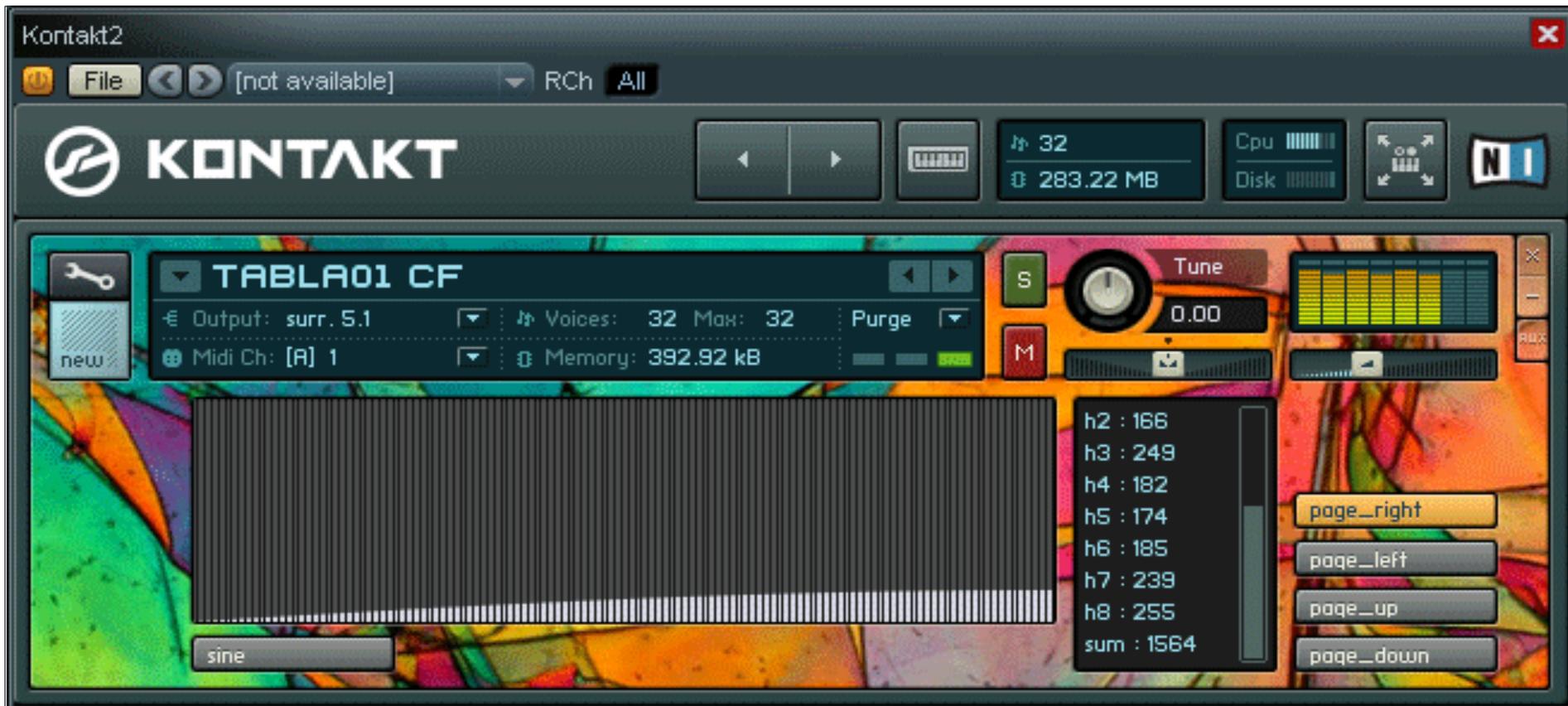
Fade controls can be activated for the fundamental and two harmonics. The fadeout is applied to samples that sound on note release. Fadein is 0 to 6 seconds. Fadeout is 0 to 10 seconds.



This screen displays the fundamental fade curve table and a realtime display of voice volumes in millidecibels. The curve defaults to 90 degrees of cosine values in 128 steps. Native Kontakt functionality allows the curve to be drawn freehand in the table display. Linear segments can be drawn by simultaneously holding left and right mouse button and dragging.



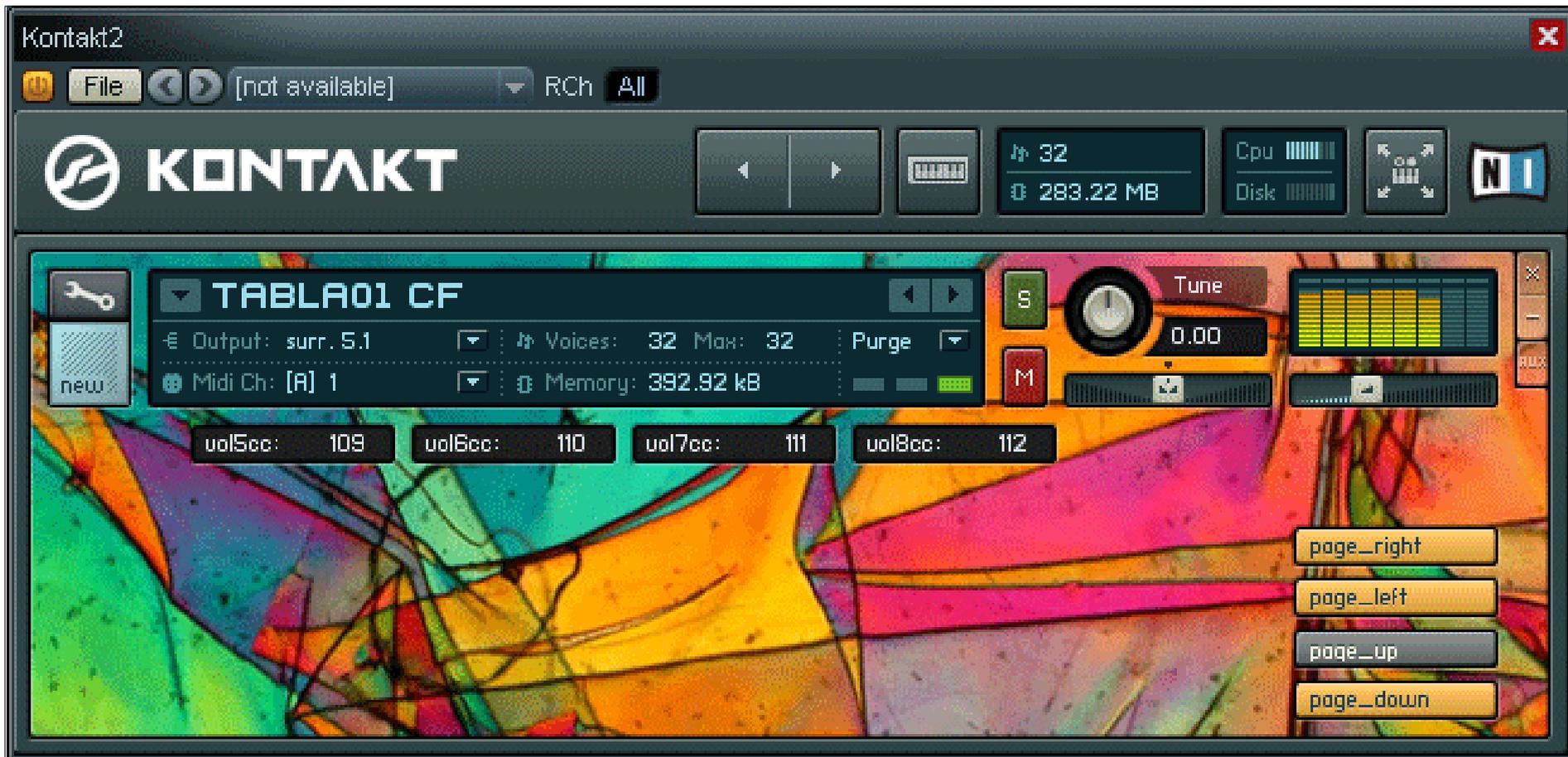
While a note is held, the first two harmonics of the Crossfader can be retriggered to fire off new instances of the note on a midi synced beat. Retrigger is selectable for quarter, eighth, sixteenth, quarter triplet and eighth triplet. In addition, the selected trigger duration can multiplied by the bar setting and divided by the beat setting (10 increments each) to generate interesting polyrhythms. Retriggering at a fast tempo quickly ramps the number of active voices.



This screen displays the rise curve for harmonic voices. It defaults to a sine curve, but can be manually drawn. If a sine curve is used, turning the xfade knob on the main screen redraws the curve to a higher or lower slope. The realtime note display shows plus or minus millidecibels for each voice vs. the default volume setting for the voice and the total volume change of the instrument.



This screen shows midi cc assignments for the fundamental and first four harmonics. Midi cc control is also provided for trigger sample offsets, since small changes in sample start points can create interesting sweeps of note attacks.



Kontakt also supports NRPN messages, so these volume cc controls could easily be modified to work with a faderboard or other hardware. The script could also easily be modified to send midi cc or NRPN values as knobs are turned on the UI.