ZAPZORN
COMPOSER TOOLS

ELEMENTS

User Manual v. 1.0

POWERED BY KONTAKT SOFTWARE TECHNOLOGY

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Thank you for purchasing **ZAPZORN'S ELEMENTS** for **Kontakt 5**!

ZAPZORN'S ELEMENTS is a sound designing tool that allows the user to layer up to 24 different elemental sounds and apply effect and mix parameters to create interesting new sounds. This manual is intended to give you an overview to the endless possibilities that Elements has to offer.

What is ZAPZORN'S ELEMENTS?

ZAPZORN'S ELEMENTSwas created out of the need for composers to get their hands on usable sounds. In a world of multiple samples with thousands of options, Elements allows the user to take an organic sound and modify it to create new custom sounds that are completely unique to the users creativity.

ZAPZORN'S ELEMENTSstructure starts with a unique hit based sound design sample library that takes over 100 objects made from glass, metal, plastic and wood and samples them in over 400 different ways. Elements allows users to layer up to 24 layers of those samples and apply mix and effect parameters to then to create new exciting sounds.

These objects were sampled in high quality 96k and 24 bit with close miking techniques at multiple velocities then carefully edited, matched, and categorized to maximize usefulness. Each object is placed in its own category: Glass, Metal, Plastic, Wood and Hybrid (a mixture of all of the elements), then presented in two different ways: Menus and Patches.

Use the manual below to explore the endless possibilities that **ZAPZORN'S ELEMENTS** has to offer your sound.

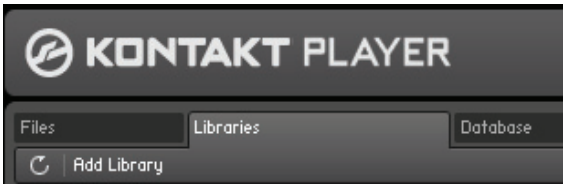
System Requirements

- Mac OS 10.4 or later, G4 1.4 GHz or faster, 512 GB or RAM or more*
- Windows XP, Pentium IV or Athlon 1.4 GHz or faster, 512MB RAM or more*

*Please note that this library is sampled at 96k /24 bit, and has the potential to layer 24 different multi-velocity sounds coupled with effects, arpeggiators, and convolution reverb that can make the CPU load very high when used to its maximum potential. Slower processors and less RAM may effect the performance of ZAPZORN'S ELEMENTS and may cause the need to lower the sample rate or utilize the Memory Server which requires 4 GB of RAM. Additionally, the Instruments preload buffer size may have to be altered to improve performance.

Installation Instructions

After you have installed ZAPZORN'S ELEMENTS in your library folder you can add it to your library by pressing the 'Add Library' button as shown below:



Find the ZAPZORN'S ELEMENTS folder and press 'Choose' and the library will show up in your Kontakt Libraries bar.

Library Overview

Instruments Tab

The Library is set up with three possibilities under the Instruments tab:

1. MENUS: Menus are set up for you to create you own sounds. They are in 5 categories:

Glass: Objects made of glass, struck various ways. (wine glass, crystal bowl, etc.)

Metal: Objects made of metal, struck various ways. (propane tank, copper pipe, etc.)

Plastic: Objects made of plastic, struck various ways. (vacuum hose, PVC pipe, etc.)

Wood: Objects made of wood struck various ways. (dowel, spatula, etc.)

Hybrid: These menus are combinations of all four of the above menus.

Upon opening the 'Menus' folder, you will find the 'Best of' patches. These are patches that contain the best sounds of each of the above categories. The 'Best of Hybrid' patch contains the best of the best of all of the categories. However, do not assume that the 'Best of's' are the go to patch - there are many treasures in all of the menus!

Each of the Menu folders contain the following patches:

Menus 1-4: Contains nearly all the samples for each category in a random order.

Clean Menu: Contains the 24 'cleanest' sounds for that particular category. Clean means that they have the clearest tone or nicest sound compared to others in their category.

Overtone Menu: Overtone Menu contains 24 of the best 'overtones' of that category. Overtones are described as sounds that contain more than one tonal element.

Percussive Menu: Percussive menu contains 24 of the best percussive sounds for that category.

2. PATCHES: Patches are made from choosing and modifying parameters from the above menus. Each patch is categorized in the following ways:

Ambient: The Ambient folder contains patches that were made from various menus that were modified to result in ambient sounds.

Arps: The Arps folder contains patches that were made from various menus that use the arpeggiator to result in tempo-based sounds.

Clean: The Clean folder contains patches that were made from various menus that result in sounds that have a clean tonal quality.

Distorted: The Distorted folder contains patches that were made from various menus that result in sounds that have a distorted quality.

Overtones: The Overtones folder contains patches that were made from various menus that result in sounds that have multiple tones.

Percussive: The Percussive folder contains patches that were made from various menus that result in sounds that have a percussive quality.

3. TEMPLATE LOAD: The Template Load patch is made for anyone who wants to use the structure of ZAPZORN'S ELEMENTS with their own samples. Please refer to the 'Creating Your Own Tools' video on ZapZorn.com for more information. The template load requires a full version of Kontakt 5 and will not work in Kontakt player.

Depending on what you want to do with create (Menus), play (Patches) or make your own tools (Template Load), load your patch of choice to get started.

Multis Tab

The Multis Tab has combinations of sounds using various groups of patches to create very complex sounds. To load a multi, click on the multi patch. You will get a dialog box asking if you want to replace the Multi you already have. If you say yes, Kontakt will clear out any patches that you have and replace then with the patches that make up the multi. Be careful when saying yes as if you had any changes you have made to the patches that are loaded and did not save them, they will be deleted. If you say no, then the multi patches will be loaded in addition to what you already have loaded which may also produce some adverse results. The best way to load a multi is to start off with no patches loaded and say yes to the dialogue box.

Instrument Overview

Main Controls Tab

1. Group Keyswitches: These buttons activate one of 24 groups. Clicking them will automatically activate Latch mode. By toggling MIDI Select below, you can duplicate this behavior with MIDI keys C0-B1. Holding Control (Command on Mac) will toggle exclusive group selection. This control is MIDI learnable (right-click).

2. Latch: Toggles latching of group keyswitches on/off. When latching is off, a particular group will be played only if its associated keyswitch is held down.

3. Lock: Locks the current group keyswitch setup, in order to prevent accidental changes when playing. NOTE: Reset button overrides the Lock button!

4. MIDI Select: Toggles between two MIDI select modes. “MIDI” mode toggles active groups by playing the keys on your MIDI controller (range C0-B1). “Edit” mode selects the group to be edited in the area to the right. When off, the playing range extends by two octaves. This control is MIDI learnable (right-click).

5. Reset: Resets all group keyswitches. This disables the playback of ALL groups! Also, it overrides the Lock button.

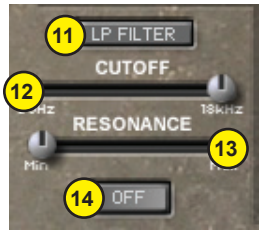
6. Attack: Sets the attack time of the group (or all groups) that’s currently displayed in the Group Selector menu below.

7. Decay: Sets the decay time of the group (or all groups) that’s currently displayed in the Group Selector menu below.

8. Sustain: Sets the sustain level of the group (or all groups) that's currently displayed in the Group Selector menu below.

9. Release: Sets the release time of the group (or all groups) that's currently displayed in the Group Selector menu below.

10. Group Selector: Selects the group for editing. If 'EDIT ALL GROUPS' is selected, the envelope and filter parameters above are set for all groups at the same time.

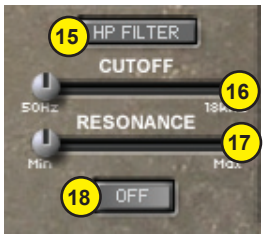


11. LP Filter: Switches between controls for lowpass and highpass filters. These controls apply to the group (or all groups) that's currently displayed in the Group Selector menu.

12. Lowpass Cutoff: Sets the cutoff frequency of the group lowpass filter. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

13. Lowpass Resonance: Sets the resonance of the group lowpass filter. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

14. Lowpass ON/OFF: Toggles the group lowpass filter on/off. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

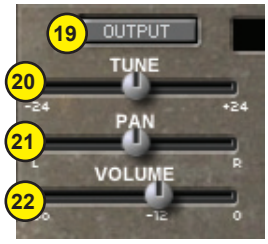


15. HP Filter: Switches between controls for lowpass and highpass filters. These controls apply to the group (or all groups) that's currently displayed in the Group Selector menu.

16. Highpass Cutoff: Sets the cutoff frequency of the group highpass filter. Applies to the group (or groups) that's currently displayed in the Group Selector menu.

17. Highpass Resonance: Sets the resonance of the group highpass filter. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

18. Highpass ON/OFF: Toggles the group lowpass filter on/off. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.



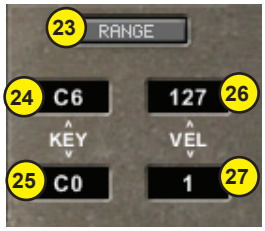
19. Output: Switches between controls for tune/pan/volume and key/velocity range limits. These controls apply to the group (or all groups) that's currently displayed in the Group Selector menu.

When in Output Mode, the Main Controls display these parameters:

20. Tune: Adjusts the tuning across the range of +/- 2 octaves in semitone steps. Hold the Alt (Option on Mac) key while moving the slider for smooth adjustment in cents. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

21. Pan: Adjusts the group output panning. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

22. Volume: Adjusts the group output volume. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.



23. Range: Switches between controls for tune/pan/volume and key/velocity range limits. These controls apply to the group (or all groups) that's currently displayed in the Group Selector menu.

When in Range Mode, the Main Controls display these parameters:

24. Key Range High: Adjusts the end of the playable key range. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

25. Key Range Low: Adjusts the start of the playable key range. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

26. Velocity Range High: Adjusts the end of the playable velocity range. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

27. Velocity Range Low: Adjusts the start of the playable velocity range. Applies to the group (or all groups) that's currently displayed in the Group Selector menu.

Arp Tab

1. Mode: "On" enables standard arpeggiator mode. "Latch" ignores key releases so the arpeggio holds indefinitely. "Dynamic" mode adds/removes the notes from the arpeggio by making each key a toggle switch - press once to add, press again to remove. Hold Ctrl (Command on Mac) and click to select previous mode.

2. Repeat: Selects the number of times each note in the note buffer will be repeated. This includes all four modulation tables. Hold Ctrl (Command on Mac) and click to select previous value.

3. Rate: Sets the rate of the arpeggiator, depending on state of Tempo Sync. If Tempo Sync is enabled, the rate is adjustable in note values (dotted and triplet values available). If Tempo Sync is disabled, the rate is adjustable in range of 1 to 5000 ms.

4. Duration: Sets the duration of the arpeggiated notes in percent. 100% equals the length set by the Rate knob.

5. Swing: Offsets every other step by the specified amount in percent, in order to create a swing feel. Positive values push every other step forward, negative values pull every other step backward.

6. Direction: Defines the pattern by which the notes are going to be arpeggiated.

7. Steps: Selects the number of steps used in pattern tables.

8. Tempo Sync: Toggles the host tempo synchronization of arpeggiator rate (speed). If disabled, the arpeggiator rate is set in milliseconds.

9. Velocity: Pattern table which influences the velocity of arpeggiated notes. Right-click the table to drag a line across multiple steps. Hold Ctrl (Command on Mac) and click the step (or drag while holding Ctrl/Command) to reset the step to the default value.

10. Pan: Pattern table which influences the pan position of arpeggiated notes. Right-click the table to drag a line across multiple steps. Hold Ctrl (Command on Mac) and click the step (or drag while holding Ctrl/Command) to reset the step to the default value.

11. Cutoff: Pattern table which influences the filter cutoff of arpeggiated notes. Right-click the table to drag a line across multiple steps. Hold Ctrl (Command on Mac) and click the step (or drag while holding Ctrl/Command) to reset the step to the default value.

12. Resonance: Pattern table which influences the filter resonance of arpeggiated notes. Right-click the table to drag a line across multiple steps. Hold Ctrl (Command on Mac) and click the step (or drag while holding Ctrl/Command) to reset the step to the default value.

13. Filter Type: Selects the arpeggiator filter type. This is the master filter of the instrument, which means that it filters the sound after it has passed ALL Trigger FX and the convolution reverb!

14. Randomize: Press this button to generate a completely random sequence for all four pattern tables. Hold Ctrl (Command on Mac) and click the button to reset all pattern tables to default values.

15. Fixed Velocity: When enabled, played velocities are ignored and taken from the velocity modulation table. When deactivated, played velocities will be scaled by values in the velocity modulation table.

16. Load: Load an NKA preset file containing saved states of four pattern tables.

17. Save: Save the state of four pattern tables to an NKA preset file.

Mixer Tab

1. 1 - 8: Displays the mixer controls for groups 1 through 8.

2. 9 - 16: Displays the mixer controls for groups 9 through 16.

3. 17 - 24: Displays the mixer controls for groups 17 through 24.

4. Group Indicator: When lit, this indicates that the group is active.

5. Tune: Adjusts the tuning of group <1 - 24>, across the range of +/- 2 octaves in semitone steps. Hold the Alt (Option on Mac) key while moving the slider for smooth adjustment in cents. Click the slider while holding Ctrl (Command on Mac) and Shift to restore the default values for Tune, Pan and Volume for this group.

6. Pan: Adjusts the panning of group <1 - 24>. Click the slider while holding Ctrl (Command on Mac) and Shift to restore the default values for Tune, Pan and Volume for this group.

7. Volume: Adjusts the volume of group <1 - 24>. Click the slider while holding Ctrl (Command on Mac) and Shift to restore the default values for Tune, Pan and Volume for this group.

8. Solo: Toggles the solo playback mode of group <1 - 24>. Click the button while holding Ctrl (Command on Mac) for exclusive group solo (only one group soloed at any time).

9. Parameter Indicator: This shows the value of the Tune, Pan or Volume parameter when altered.

Trigger FX / Reverb Tab

1. Distortion: Toggles the distortion effect on/off. Automatically toggles Latch mode as well.

2. Lo-Fi: Toggles the lo-fi effect on/off. Automatically toggles Latch mode as well.

3. Flanger: Toggles the flanger effect on/off. Automatically toggles Latch mode as well.

4. Phaser: Toggles the flanger effect on/off. Automatically toggles Latch mode as well.

5. Delay: Toggles the delay effect on/off. Automatically toggles Latch mode as well.

6. Auto-pan: Toggles the auto-panning effect on/off. Automatically toggles Latch mode as well.

7. Tremolo: Toggles the tremolo effect on/off. Automatically toggles Latch mode as well.

8. Filter: Toggles the filter effect on/off. Automatically toggles Latch mode as well.

9. Chopper: Toggles the chopper effect on/off. Automatically toggles Latch mode as well.

10. Distortion Drive: Sets the amount of distortion gain.

11. Distortion Tone: Sets the amount of lowpass filtering after the saturation stage, which muffles the sound.

12. Distortion Shaping: Shapes the distortion color by various adjustments of bass and treble frequencies.

13. Bits: Amount of bits to which the signal gets truncated.

14. Sample Rate: Amount of sample rate reduction.

15. Noise: Amount of added noise to the signal.

16. Flanger Speed: Speed of flanger modulation.

17. Flanger Depth: Depth of flanger modulation.

18. Flanger Feedback: Amount of signal going back to the flanger input. This creates a howling metallic sound at higher settings.

19. Phaser Speed: Speed of phase shifting.

20. Phaser Depth: Depth of phase shifting.

21. Phaser Feedback: Amount of signal going back to the phaser input. This creates a swirling, screaming sound at higher settings.

22. Delay Time: Adjusts the delay time in (milli)seconds, or in note divisions, depending on the state of the Sync button. NOTE: In Sync mode, longer delay time values (half note, whole note, etc.) are not available below 83 BPM (this is a Kontakt restriction) - read the manual for more details on this!

23. Delay Mix: Amount of delayed signal that's mixed with the original signal (wet level).

24. Delay Feedback: Amount of repeats produced by the delay effect.

25. Auto-pan Speed: Speed of the auto-panning effect, adjustable in Hertz or note divisions, depending on the state of the Sync button.

26. Auto-pan Depth: Depth of the auto-panning effect.

27. Autopan Shape: Selects the waveform used by the autopanner effect.

28. Tremolo Speed: Speed of the tremolo effect, adjustable in Hertz or note divisions, depending on the state of the Sync button.

29. Tremolo Depth: Depth of the tremolo effect.

30. Tremolo Shape: Selects the waveform used by the tremolo effect.

31. TFX Filter Cutoff: Adjusts the cutoff frequency of the Trigger FX filter.

32. TFX Filter Resonance: Adjusts the resonance of the Trigger FX filter.

33. Filter Type: Selects the Trigger FX filter type.

34. Chopper Size: Adjusts the length of the looped portion of the samples currently being played, resulting in a 'stutter' effect.

35. Latch: Toggles latching of effect trigger keyswitches and toggle buttons. When latching is off, an effect is active only while its associated trigger keyswitch is held down.

36. Lock: Locks the current trigger effects setup to prevent accidental changes when playing. NOTE: Reset button overrides the Lock button!

37. Tempo Sync: Toggles host tempo synchronization of delay, auto-pan and tremolo effects on/off. NOTE: Longer delay time values (half note, whole note, etc.) are not available below 83 BPM (this is a Kontakt restriction) - read the manual for more details on this!

38. Reset: Resets all effect trigger keyswitches and toggle buttons. This bypasses ALL effects immediately! Reset button also overrides the Lock button!

39. Reverb Amount: Adjusts the amount of convolution reverb effect applied to the overall sound.

40. Pre-delay: Adds a small delay before the reverberation starts.

41. Size: Stretches or compresses the impulse response file, simulating a larger or smaller room.

42. Reverb Type: Loads one of the available impulse responses into the convolution reverb effect.

43. LP Cut: Filters the impulse response sample by gradually removing the higher frequencies. Note that this operation needs some time to be done, so the knob might not respond inrealtime.

44. HP Cut: Filters the impulse response sample by gradually removing the lower frequences. Note that this operation needs some time to be done, so the knob might not respond in realtime.

45. Reverb: Toggles the convolution reverb effect on/off.

User Information

Noise Ratios

ZAPZORN'S ELEMENTS was recorded with high end microphones and pre-amps and every effort was taken to ensure the cleanest most pristine sounds. However, when layering multiple sounds even a small noise floor can multiply and create a higher result noise ratio. Certain sounds inherently have higher noise ratios because of the nature of their physical makeup and/or techniques to successfully sample them. The best way to combat any resulting noise is utilize the mixer to maximize the gain potential of your sounds. For noisy tails of longer sounds, use the decay and sustain to create a natural sounding decay that lessens the resulting noise floor.

Distortion and clipping

Another important note is that each .nki defaults to -6db for a reason. It is implied that users will use multiple layers to create new sounds. It is recommended that when you layer more than three sounds together, that you utilize the mixer to bring down the overall levels of layer intensive patches. You will find that if you do not lower the layers in the mixer or the overall level of the .nki for layer intensive patches, that the resulting output may clip. Always refer to the .nki's output to monitor the clipping of a potential .nki and adjust accordingly for maximum quality potential.

It is also important to note that the Distortion, Flanger and Phaser effects when used utilizing high parameter values, can create a clipping effect. To combat this, use your parameter values sparingly or adjust the overall mix levels in the mixer or master output.

Effects and Intensive CPU Loads

The trigger effects can add a whole new world to your layered sounds but it is important to note that use of multiple effects may make the CPU load too overbearing. Effects that take larger amounts of processing are the Convolution Reverb, Delay, and the Chopper. When multiple effects are used with the Arpeggiator, the CPU may also be strained especially when using the most CPU intensive effects. Some ways to combat a CPU 'crush' are:

- When using the Arpeggiator and Chopper, use a higher size for Chopper
- Lower the Delay feedback when using multi-effects if there is a CPU drain
- Using too many effects with high parameter values will likely cause a CPU drain, combat this by experimenting with lower values in the individual effects
- When using multiple effects with larger Convolution Reverbs, you might find CPU relief by using a smaller reverb and increasing the size.

In general, use common sense in loading up your sounds with too many parameters, you will find that many times you can achieve the same result affect with less effects!

ZapZorn ELEMENTS Credits

Concept: George Gabriel

Recorded and Produced By: George Gabriel

Edited By: George Gabriel and Marcelo Morales Cerda

Scripted By: Mario Kruselj

Elements Graphics By: Stephen Howell (Hollow Sun)

Administration / Documentation: Jennifer Gabriel

Web / Marketing: Drew Wells

Dedicated to Mark Spiwak, R.I.P.