



## ATHEOS timestretching soundscape machine for KONTAKT (v5.8.1+)



User Manual

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# 1. Introduction

Thank you for purchasing Atheos!

Atheos is a 9 GB „timestretching cinematic soundscape“ instrument that features four distinctive engines, hundreds of source sounds, a flexible sequencer and a comprehensive multi-fx section for each engine.

Each engine in Atheos features 300 source sounds (with the exception of the „noise“ engine which only has 150 source sounds).

All sounds can be played back forward, reverse or both at the same time.

There are 260 presets (Kontakt snapshots) with more to come in free updates.

## 2. Installation / Setup

To install Atheos on your computer, extract the downloaded release archive [RA\\_ATHEOS.zip](#) that you have received via e-mail to any location you want.

On OSX, use the default Archive utility for extraction. On Windows, use 7-Zip, WinZIP or WinRAR.

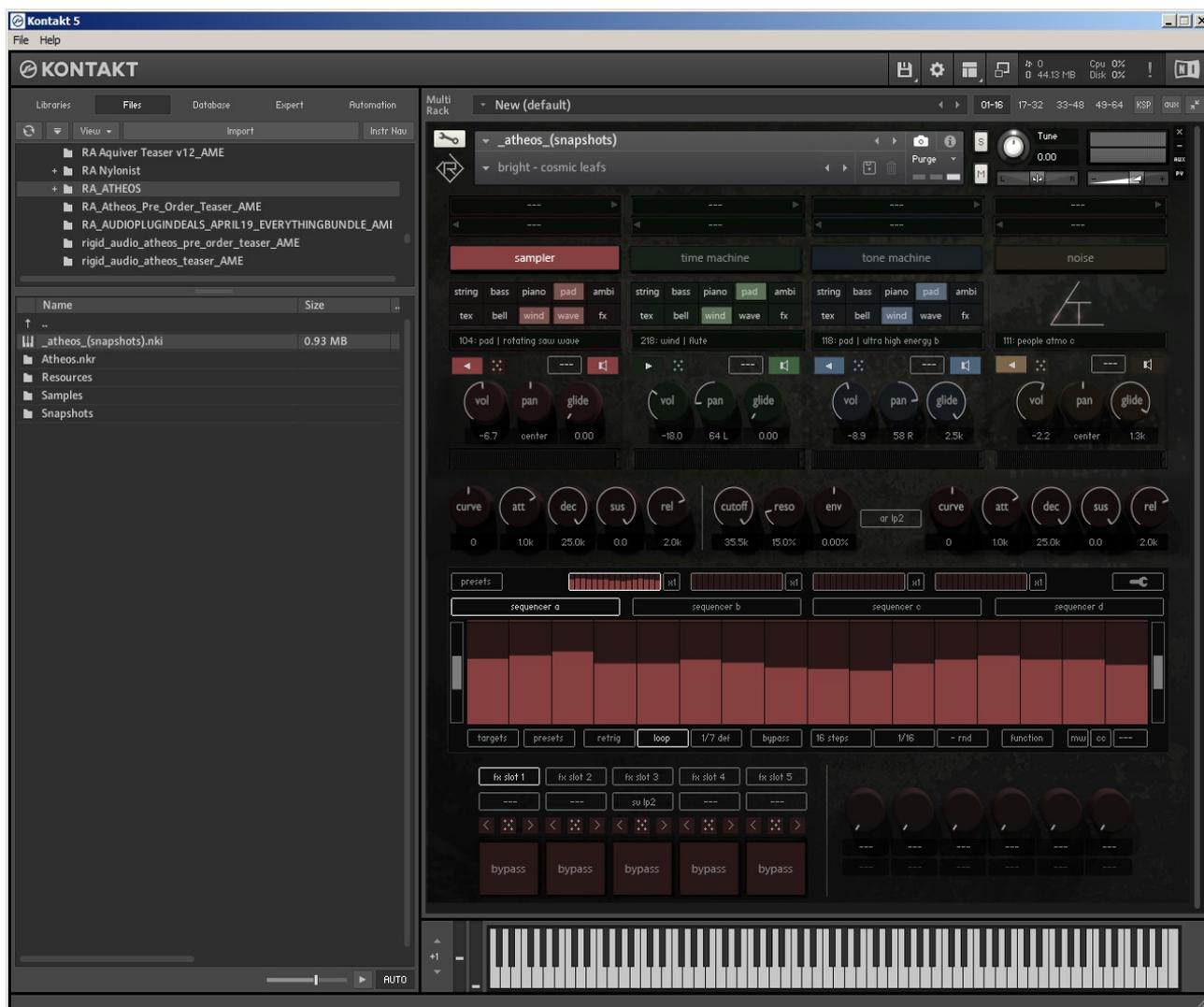
The content of the archive (after extraction) should look like this:

 Resources	27.07.2019 08:55
 Samples	26.07.2019 13:06
 Snapshots	28.07.2019 10:32
 _atheos_(snapshots).nki	31.07.2019 07:36
 Atheos.nkc	27.07.2019 08:55
 Atheos.nkr	27.07.2019 08:55
 atheos_snapshots.txt	28.07.2019 14:21
 Dont forget!.txt	03.11.2018 15:43
 IMPORTANT - PLEASE READ.txt	28.07.2019 10:42
 RA Atheos EULA.txt	24.07.2019 10:37
 RA Atheos Installation.txt	28.07.2019 10:42
 Rigid Audio Online	24.07.2019 10:43
 Snapshot-Installation-Step-1.jpg	28.07.2019 10:34
 Snapshot-Installation-Step-2.jpg	28.07.2019 10:36

Now open up Native Instrument's KONTAKT 5.8.1 (or higher) and locate the folder that you've copied / extracted the [RA\\_ATHEOS.zip](#) contents to.

**NOTE: ATHEOS does not appear as a library in Kontakt. You also don't need a serial key / activation for it.**

In KONTAKT, use the Files tab (browser) to navigate to that location:

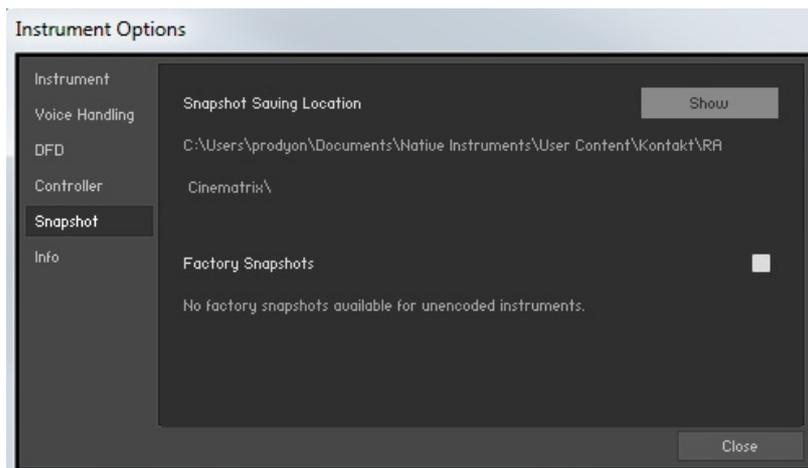


Load the [\\_atheos\\_\(snapshots\).nki](#) instrument.

**NOTE: If you are experiencing loading problems or missing content warnings from Kontakt, please head over to the troubleshooting section of this manual!**

Once that is done, click one the wrench icon in the upper header section (directly above the Rigid Audio logo). You are now in the instrument edit mode.

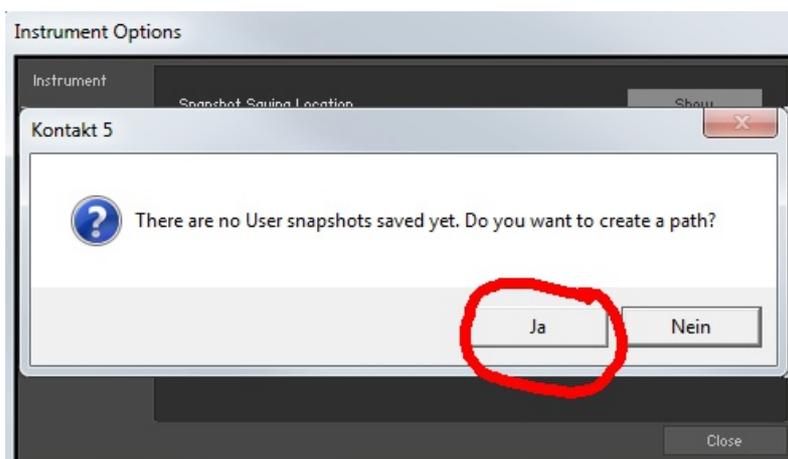
Click on the „Instrument Options“ button directly underneath the wrench icon:



From here you can access the Snapshot Saving Location.

Click on the „Show“ button to the right.

A message might appear, asking you to create a new snapshots path for your instruments:



Click on Yes.

A window with the snapshots location appears.

Now copy the [\\_atheos\\_ \(snapshots\)](#) folder from the release archive ([..\RA\\_ATHEOS\Snapshots\](#)) into this folder / snapshot location.

Now close the [\\_atheos\\_ \(snapshots\).nki](#) instrument in Kontakt and reload it.

### 3. Browsing Presets

You should now be able to browse all the preset snapshots:



The presets in Atheos are categorized by type.

You have bright, damaged, dark, lofi, noise, rhythmic, split, texture and warm presets.

Listen to some of these to get a feel for the sound of Atheos.

## 4. GUI Overview



## 5. The Engines



Ateos has four different engines. The main difference between each engine is the type of sample playback mode. In the highlighted picture above, we have selected the „sampler“ engine.

The „**sampler**“ engine plays back samples normally. (As you would expect from a sampler). The „**time machine**“ uses a high-quality timestretching algorithm to play back sounds. The „**tone machine**“ uses a similar technique, but with this engine, the samples will sound more like a vocoder.

The „**noise**“ engine is similar to the „**time machine**“ engine. (Also plays back samples with realtime timestretching).

Each engine **has the same set of controls** which we'll cover now.

## 6. Engine Controls



Each engine has controls for:

**-Keysplit (the „---“ controls at the top).**

These are actually sliders, that you can drag left/right with your mouse to set up a keyrange for that particular engine.

**-Select/Edit button (e.g. „sampler“)**

**-Sound Category Selection (e.g. „string“ or „wave“)**

From here, you can choose a sound category for each engine (except the „noise“ engine). You can mix categories freely – this will affect the sound selection menu underneath:

**- Sound Selection (e.g. „104: pad | rotating saw wave“).**

Click on this menu, to select a sound for the chosen engine. Note that this menu/list will update (change) depending on what sound categories you have selected. This is especially useful, if you only want to check out e.g. wave sounds, so you don't need to scroll through a huge list every time.

Note that the chosen sound categories also affect sounds randomization.

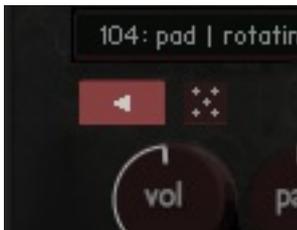
If you want to let Atheos choose a random sound, you can do that by category. This is useful if you like a particular preset that has e.g. only pad sounds but want some different sounds within the same style.

### – **Playback Mode Button (forward, backward or both)**

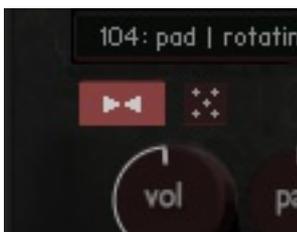
Click on the button with the playback icon, to cycle through the three sample playback modes:



forward



backwards (reverse)



forward and backward together

### **A word on panning and the Playback Mode Button:**

When you play back samples forward (which is the default) or reversed, the panning will work like you would expect it to. Turn the pan knob to the left to hear the sample on the left side and turn it to the right to hear the sample on the right side.

However, if you engage the forward and backward together-playmode, the panning will work differently:

When the pan knob is centered, both samples (forward and reversed) will play back in the center of the stereo field. Turning the pan knob all the way to the left will play the forward sample on the left side and the backward sample on the right side of the stereo field.

Turning the pan knob completely to the right will play back the forward sample on the right side and the backward sample on the opposite side.

This can be useful to get some stereo-feel with just a single sound and can create interesting variations.

#### - Randomize (dice button)



The dice button will open up a menu from where you can let Atheos choose a random tone for the currently selected engine. You can also choose to randomize the sound sources for all four layers at once. Choose „randomize tone (all)“ for that.

Note: The randomization will **only** be applied to engines that are enabled via the loudspeaker button symbol:



## - Pitch Bend Range (e.g. „pb: 2“)



From here, you can select the pitch bend range for each engine.

This is useful if you have playing more than one engine at the same time and only want to apply pitch bend to e.g. the „sampler“ engine.

You can choose from „---“ (which equals zero = off), 2, 5, 7 and 12 semitones.

## - Volume



Controls the individual engine volume, ranging from infinite to +12 dB.

## - Pan



Controls the individual engine panning.

## - Glide



Controls the individual (polyphonic) note gliding.

To disable the gliding, simply turn the knob all the way to the left (0.00).

The maximum glide time is 2.5 seconds (turned all the way to the right).

## 7. Envelope And Filter Controls



Each engine has its own amp and filter envelope (ADSR) controls plus 11 different filter types. Use the engine select buttons to control these.

The options (from left to right):

### - Curve (amp envelope attack curve)



This lets you change the „shape“ of the amp attack envelope. In the above picture, the curve is set to 0.

Negative values will result in this:



Positive values will result in this:



- **Att (amp envelope attack)**
- **Dec (amp envelope decay)**
- **Sus (amp envelope sustain)**
- **Rel (amp envelope release)**
  
- **Cutoff (filter cutoff frequency)**
- **Reso (filter resonance, also called „q“ or „bandwidth“)**
- (High values result in a higher resonance)
  
- **Env (filter cutoff envelope amount)**

With this you can control the filter cutoff envelope. It is basically the same as the normal volume („amp“) envelope but it will be applied to the filter cutoff.

You can choose negative values to get an inverted envelope.

Use the controls to the right to adjust the filter envelope:



- **Curve (filter envelope attack curve)**
- **Att (filter envelope attack)**
- **Dec (filter envelope decay)**
- **Sus (filter envelope sustain)**
- **Rel (filter envelope release)**

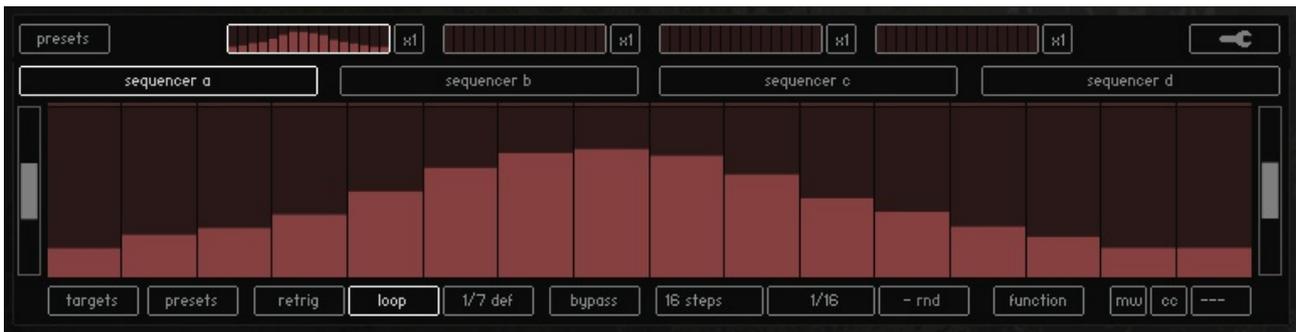
## – Filter Type (e.g. „ar lp2“)



Use this to select the filter type for the currently selected engine.  
The following filter types are available:

- ar lp2
- ar lp4
- ar bp2
- ar bp4
- ar hp2
- ar hp4
- daft lp
- daft hp
- sv notch4
- phaser
- vowel

## 8. The Sequencer



Each engine in Atheos features four sequencers that you can use to modulate various parameters at once. You can either modulate engine-specific parameters like pan, grain length, speed or formant shifting or you can modulate effects that you've inserted into one of the five effect slots of each engine.

### Let's examine the sequencer functions:



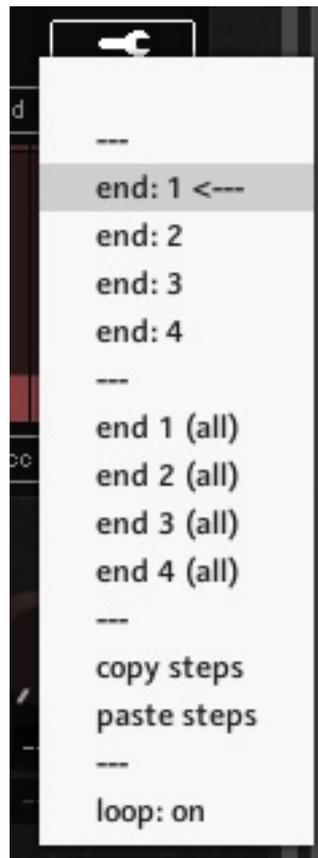
Each of the four sequencers features four additional table (steps) buffers. These preview up to 32 steps so that you know what is inside them.

Click on these, to view and edit the contents in the big main sequencer window. Note that the sequencing will **always** start with the first table buffer.

Beside each table buffer there is a „x1“ symbol. These are multipliers and specify how often that buffer will be played. Click on the „x1“ symbol to change the number of repetitions. (x1 to x8). Once you have selected something else than „x1“ the button will be lit up white.

**Note:** By default, the first buffer will be repeated forever. So changing the number of repetitions won't make a difference.

To cycle through the four table buffers, click on the wrench icon to the right:



From here you can set up, how many table buffers should be played one-after-another. The sequencers will always cycle through the buffers from 1 ... to 2 ... to 3 ... to 4 ... to 1... and so forth.

Choose e.g. „end: 3“ to repeat the first three table buffers for the current sequencer. An „<---“ arrow will indicate that visually.

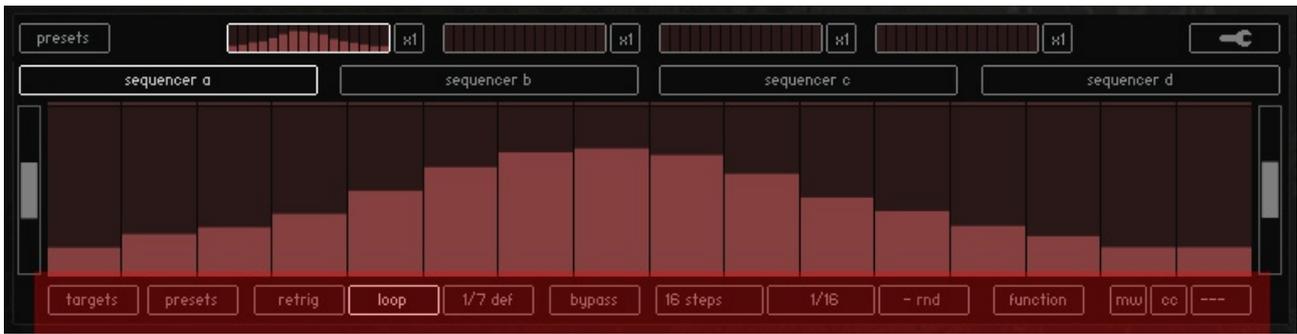
You can also do that for all four sequencers at once.

Choose „end 3 (all)“ for that purpose.

**Copy steps:** Let's you copy the currently selected table buffer data.

**Paste steps:** Let's you paste the previously selected table buffer data to any sequencer buffer of any sequencer.

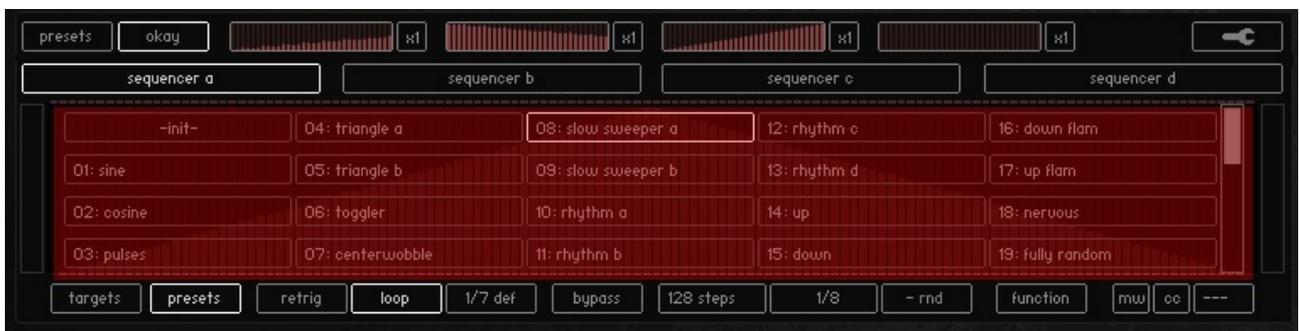
**Loop:** When set to „on“, the sequencer will repeat all buffers forever. If it is set to „off“ it will end at the chosen buffer and repeat that one forever then (e.g. „end: 3“).



**Targets:** Will be covered in the next chapter.

**Presets:** Will open up a list of 40 factory table presets.

You can freely try out table presets by clicking on the buttons:



The presets will be loaded instantly so that you can check them out.

If you aren't happy with it, simply click on „presets“ again (highlighted in the picture above) and the table will revert to whatever was in there before.

To load a preset and make it permanent, click on the „okay“ button on the top of the sequencer.

Note that table presets won't alter sequencer targets, so you won't lose your sequencer target routings.

**Retrig:** When turned on, the sequencer will restart at the first step on every new key-press (note-on).

**Loop:** Whether the sequencer should repeat the current pattern or stop at the last step.

**1/7 def:** Sequencer table playmode selector.

You can choose from seven different playback modes.  
The available modes are:

**1/7 def:** The default standard pattern playback mode.

**2/7 next:** The pattern will be played step by step. Each new key-press (note-on) will advance the pattern by one step.

**3/7 r.ps:** This will start the pattern at a random position.

**4/7 flm.:** This will „flam“ the pattern. Useful with fast table speeds.

**5/7 altr:** This will alter the pattern slightly with every cycle.

**6/7 rnd:** This will randomize the pattern with every cycle.

**7/7 rev:** This will reverse the pattern with every cycle.

**Bypass:** Will bypass the sequencer modulation when turned on.



**128 steps:** This let's you select the number of steps for each sequencer.

**1/8:** This let's you select the pattern playback speed.



- **rnd**: Opens up a menu for the selection of random sequencer speeds for the current sequencer.

For this function to work, you'll need to select at least two different sequencer speeds, e.g. „1/16“ and „1/32“.

The „- rnd“ button will light up white to indicate that the random sequencer speed is turned on. The speed will be chosen randomly from the list with every pattern cycle. The pattern playback speed indicator will show the currently chosen speed.

To disable random speed changes, choose „clear“.

## 9. Sequencer Targets

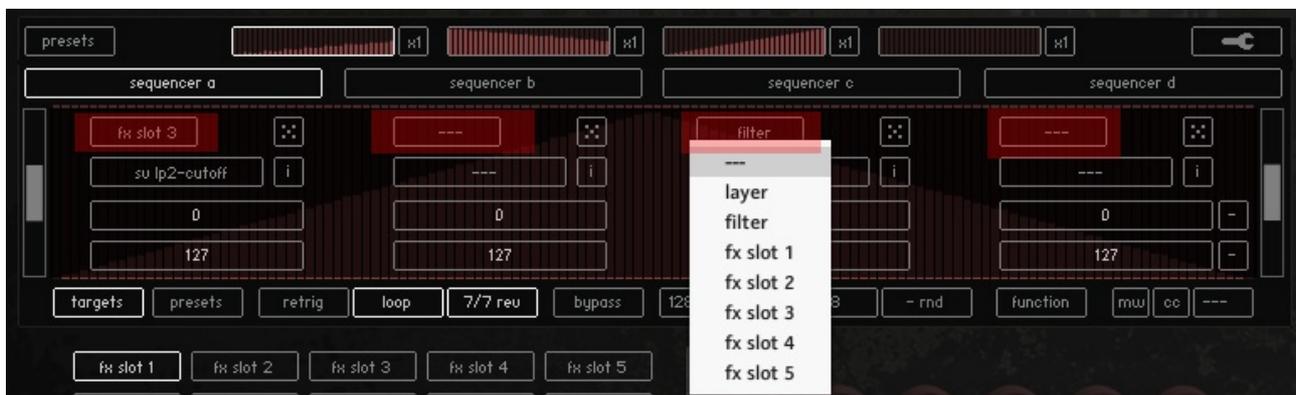


Each sequencer features four freely assignable targets.

With these, you can choose what the current sequencer pattern should modulate.

In the above picture, we are modulating a „sv lp2“ filter which has been inserted into effect slot #3. Besides this, we are also modulating the filter cutoff frequency from the current engine.

Before you can select a target for any of the four available target slots, you'll first need to select a target category:



Choose „---“ if you don't want to modulate anything with the current target slot.

The „---“ button underneath the target category let's you select the actual target parameter that you want to modulate.

Choose „layer“ to modulate one of these parameters:

**volume:** The current engine's volume.

**pan:** The current engine's panning.

**glide:** The current engine's gliding speed.

**tune:** The current engine's tunin (-36..+36 semi-tones).

**finetune:** The current engine's finetuning (-100..+100 cent).

**sample offset:** The current engine's sample offset.  
Will only be audible with every new key-press (note-on).

**pitch track:** The current engine's pitch-tracking.  
Use this to e.g. fix / make a sound static in pitch.

**speed:** The current engine's playback speed.  
Only valid for the time machine, tone machine and noise engine.

**smooth:** The current engine's playback grain smoothing.  
Only valid for the time machine, tone machine and noise engine.

**grain length:** The current engine's grain-sample length.  
Only valid for the time machine, tone machine and noise engine.

**formant shift:** The current engine's formant shift.  
Only valid for the tone machine.

Choose „filter“ to modulate one of these parameters:

**cutoff:** The current engine's filter cutoff frequency.

**reso:** The current engine's filter resonance.

Choose „fx slot 1“ to „fx slot 5“ to modulate parameters of inserted effects from the effects section at the bottom:



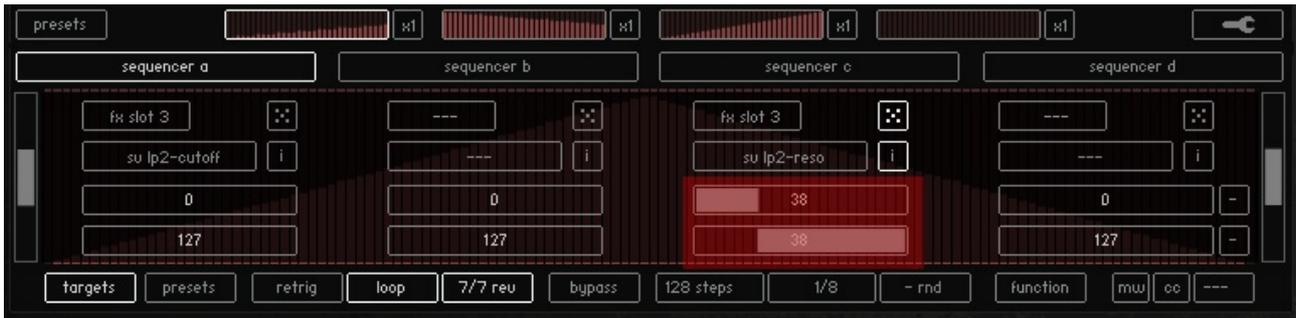
**Note: Be careful when modulating volumes and/or dry/wet controls as these can shift the volume up to +24 dB! Watch your ears and speakers!**

For each target you can set up a random category and target to modulate which will also take all inserted effects into account. Simply click on the dice button for that purpose:



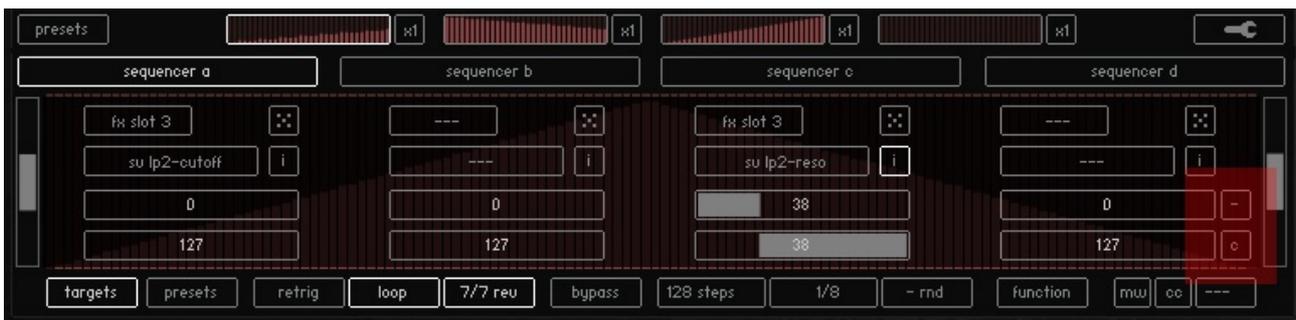
With every button press, a random category and target will be selected. There will also be chosen a random minimum and maximum modulation range. Each target modulation can be inverted using the „i“ (invert) button.

Also, each target has minimum and maximum range controls:



This is useful if for example one pattern should modulate two effects but you don't want the full range of modulation for e.g. the second effect (maybe a filter cutoff). Use these range controls to adapt the modulation to your liking.

You can also modulate the range controls of target slot #4 in each sequencer:



In the above picture, the maximum (high) range of target slot #4 of sequencer **a** has been set to be modulated by sequencer **c**.

This is best explained by an example.

Let's say you modulate the filter cutoff in sequencer **a** with a repetitive pattern. Using the sequencer range modulation, you can set up a long sweep in sequencer **c** that will then automatically modulate the maximum range of sequencer **a**.

The result is kind of opening a filter cutoff slowly but still with some modulation going on. The cutoff changes would then be more and more audible over time.

## 10. Table Editing



To edit pattern data / table contents, you simply click into the sequencer area itself to place steps. You can use the right mouse button to draw straight lines.

There are two sliders next to sequencer. The left one does set all steps to a fixed value. The right slider does rescale the table contents.

**Note that the left slider does only alter steps that have a value higher than zero. So if you have an empty pattern, the slider won't do anything!**

To make these changes permanent, click on the sequencer button of the currently selected sequencer, e.g. „sequencer a“.

Each sequencer also features a comprehensive functions menu:



From here you can:

- Shift table / pattern data to the left or right by a single step (nudging).
- Increase / Decrease table / pattern data.
- Randomize table / pattern data.
- Alter table / pattern data.
- Shrink/Stretch table / pattern data.
- Reverse table / pattern data.

- PingPong (Forward/Backward) table / pattern data.
- Repeat steps.
- Erase steps.

**Note that table operations are non-destructive. That means that the changes you have made won't be permanent until you click on the „apply“ button:**



If you don't want to apply the changes you have made, simply click on the „function“ button again to revert back to what was in the table buffer before.

## 11. External Modulation (MIDI CC)



Each sequencer from each engine can be modulated externally via a standard continuous (MIDI) controller (#CC).

To apply external modulation, click on the „mw“ or „cc“ button. The sequencer will be set to a single step and react to incoming MIDI CC data automatically. Pattern data won't be played back no more.

The „mw“ stands for „modulation wheel“ and reacts to the continuous (MIDI) controller number #1.

If you want to use a different MIDI controller, click on the „cc“ button and use the little „---“ menu next to it to choose a controller number:



This external modulation can be set up for each sequencer in each engine.

## 12. Engine Presets

You can load a engine preset for each engine in Atheos.

Click on the „presets“ button in the top-left corner of the sequencer-area:



A list will open up:



From here you can load one of the 120 categorized engine-presets.

The following categories are available:

**Damaged:** distorted, raw and driven presets.

**Filter:** filter-related presets.

**Gated:** rhythmic and gated (trancegate) presets.

**Lofi:** degraded and crushed presets.

**Rhythm:** rhythmic presets.

**Spacey:** flanged, echoey and reverberated presets.

**Subtle:** presets, that only have subtle tone variations.

**Sweep:** mostly filter and effect-sweeps.

**Time:** presets designed for the time machine/noise engine.

**Tone:** presets designed for the tone machine engine.

To load a preset, simply click on its name. '

**Note that it will load up instantly and the changes will be permanent.**

You can also create a random preset based on a selected category:



Click the dice button to open a category selection menu.

Choose any category you want and a random preset will be created and loaded.

Note that this will alter all engine settings.

However, you can choose to only manipulate certain settings:



Using the wrench icon menu, you can decide which options/settings should be

affected by creating random presets.

Note that these settings will also affect engine preset loading.

**A word on Time/Tone engine presets:**

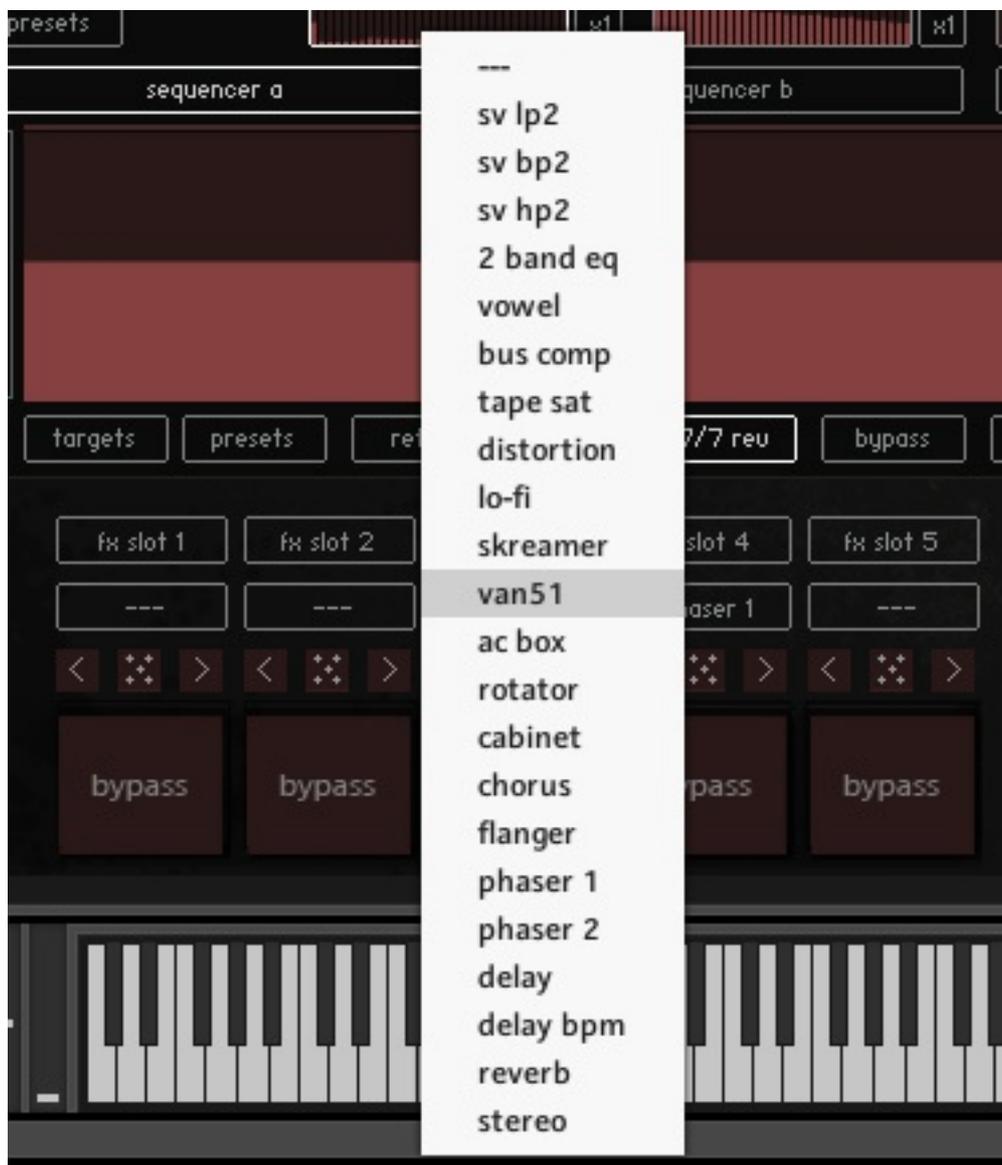
These presets are designed for the time machine and tone machine engines but can also be loaded into any other engine.

Certain effect/parameter settings simply won't work then. (e.g. the „grain length“ of the time machine engine).



Each engine in Atheos features an effects-section with five freely assignable effect-slots.

The following effects are available:



To insert an effect to an effect-slot, click on the „---“ button:



A list of available effects will appear. Choose the one you want to insert.

**Note that the signal flows from left to right in the effects-chain.  
So it goes from fx slot 1 → fx slot 2 and so forth.**

When the effect is inserted, you can manipulate it using the six available knobs to the right:



To bypass an effect, simply click on the big „bypass“ button.

You can also shift/nudge effects left/right in the effects-chain:



Any sequencer target routings you might have set up will stay intact.

Finally, you can insert a random effect by pressing the dice button:



## 14. Keysplits

Each engine in Atheos can be set up to only react to a user-defined keyrange:

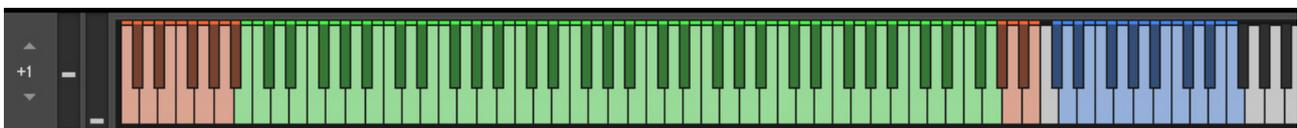


**To adjust a keyrange, click and drag the desired slider to the right or left.**

This way you can define key-splits easily. This is useful to e.g. have a pad sound on the lower range of the keyboard and e.g. a texture on the upper range.

The snapshots labelled with „split“ at the beginning demonstrate some possibilities of using keysplits.

Whenever you adjust a keyrange, the virtual Kontakt keyboard will show the defined range(s) as well for a better visualization:



## 15. Audio Routing

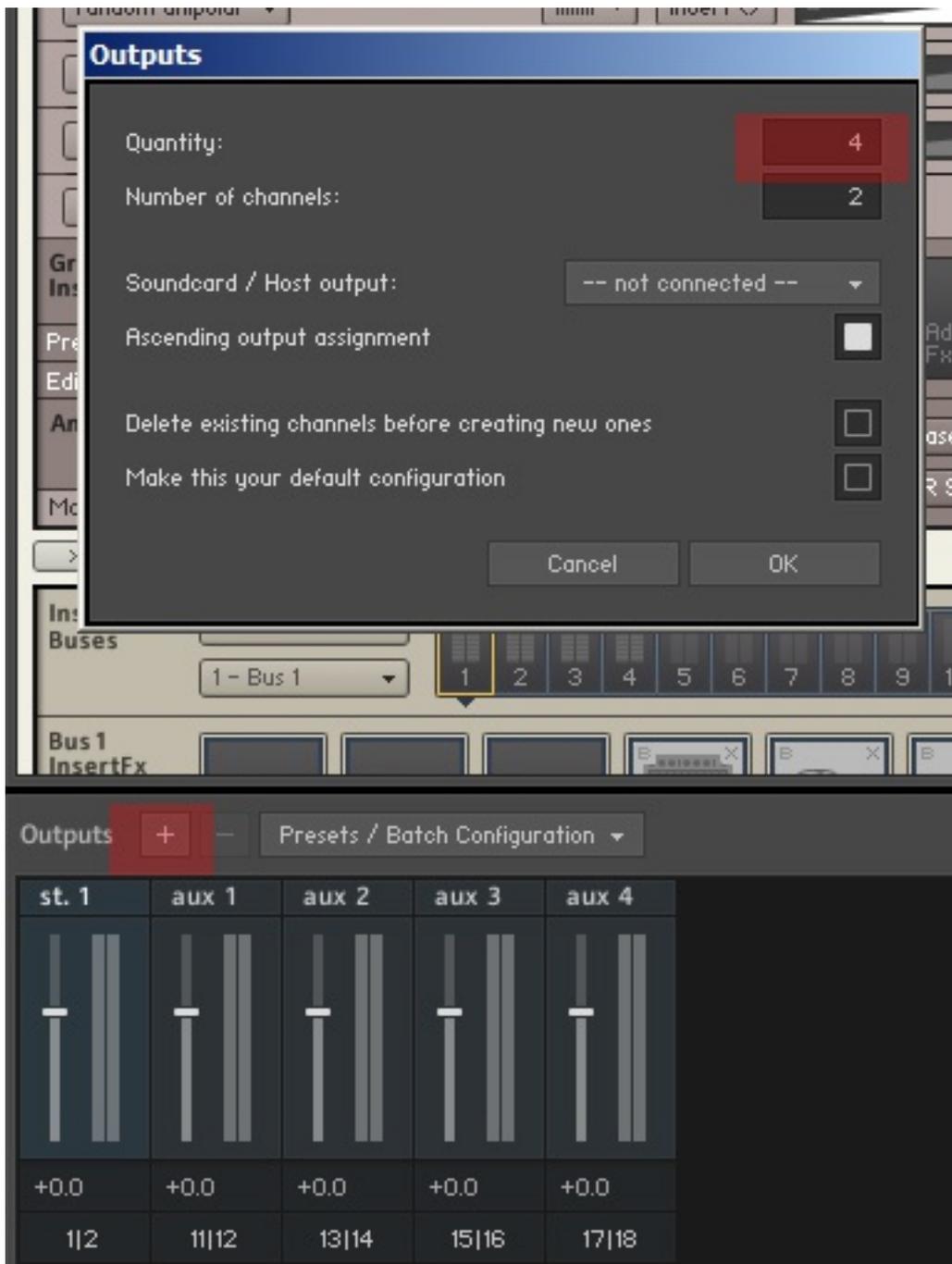
Each engine in Atheos has its own bus / audio output.  
This way you can easily route any engine to a physical output in Kontakt.

To route each engine to its own output in Kontakt, do the following:

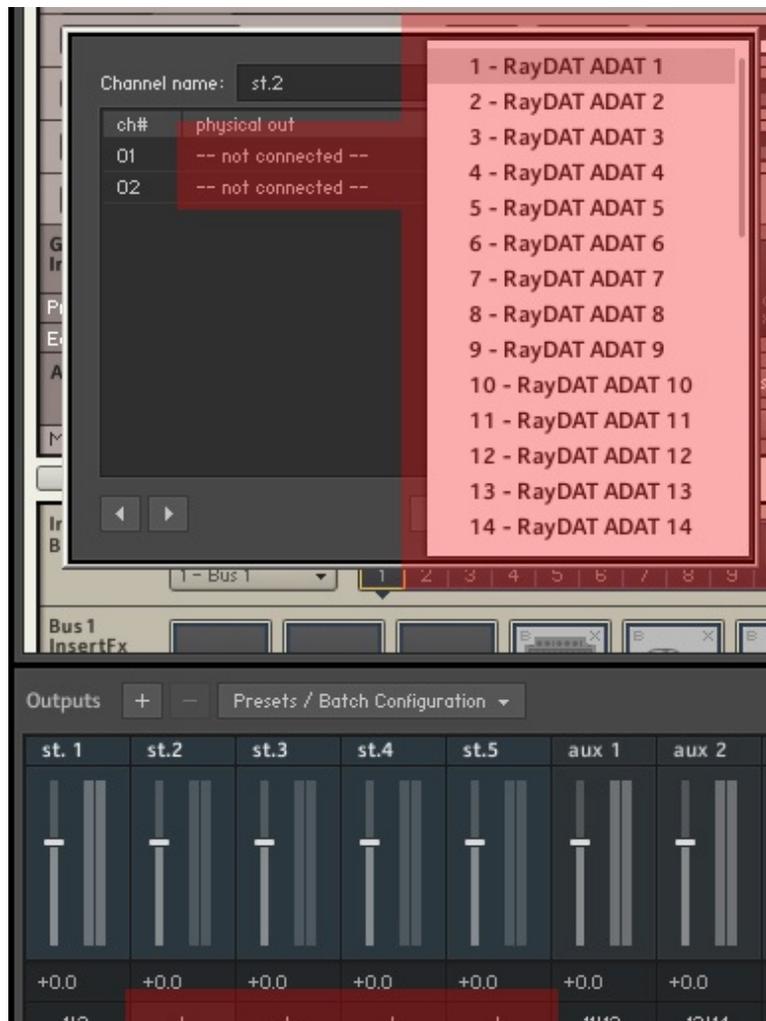
Open up the Kontakt „Outputs“:



Then click on the Outputs „+“ sign to add 4 channels:



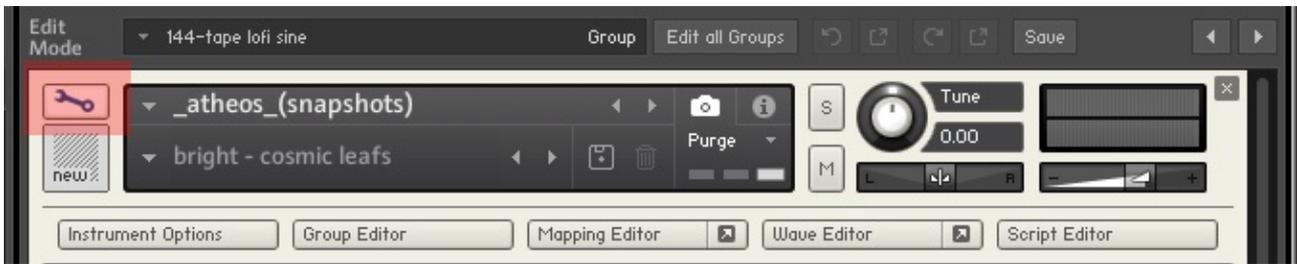
Once the new channels are created, you'll need to route them to physical outputs in Kontakt or DAW outputs in your Host. In this example, we are using physical outputs in Kontakt (standalone mode):



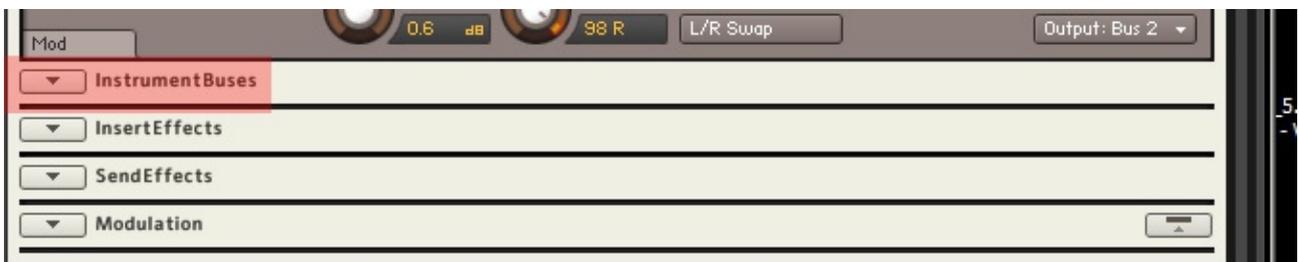
In the above picture, you'll see the four new channels (st.2, st.3, st.4 and st.5). Click on the „-|-“ areas at the bottom to assign a physical output to each channel. In this example, we are routing each channel (01=left, 02=right) to a physical RME RayDAT Adat output:



To finally route every engine to its own output, go into Kontakt's instrument editing mode by clicking the wrench icon:



Then scroll down until you'll see the „Instrument Buses“ section:

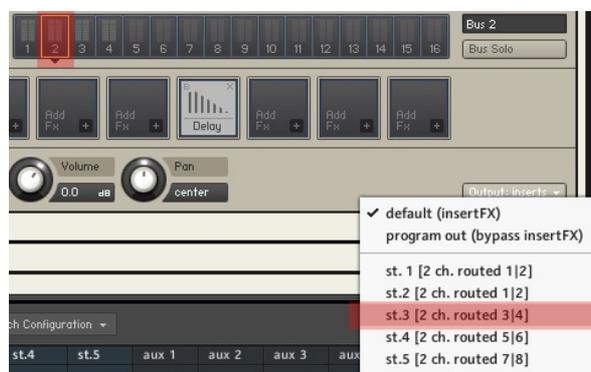


If necessary, click on the triangle to expand the section:



You'll see the Instrument Buses 1-4 which correspond to the Atheos engines (#1 Sampler, #2 Time Machine, #3 Tone Machine and #4 Noise).

Click on the „Output: inserts“ menu to assign each bus to its own output:



## 16. Troubleshooting

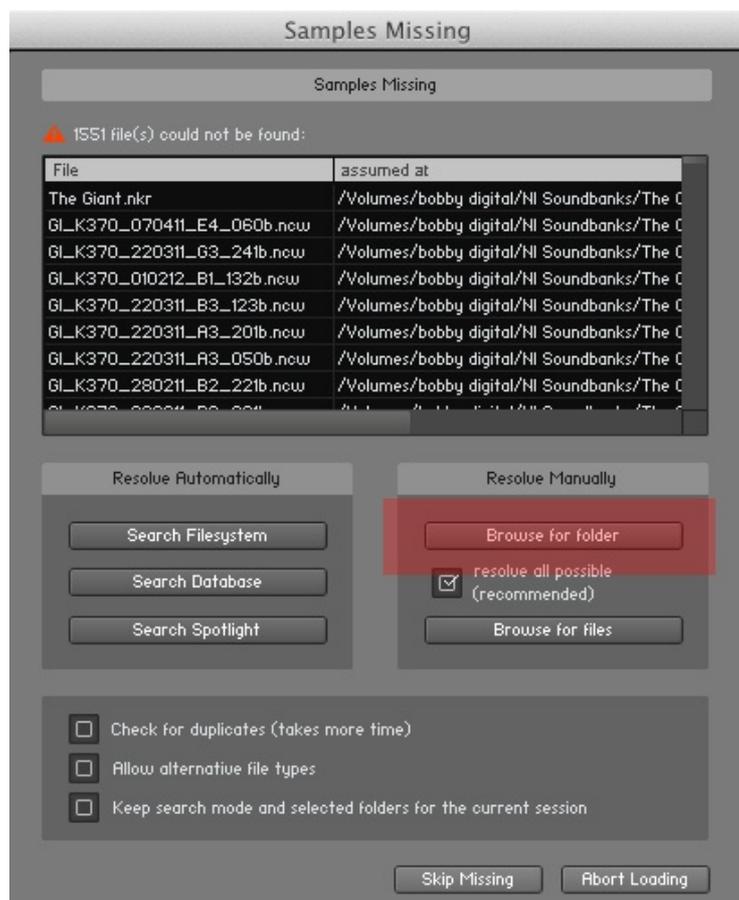
### Release Archive extraction:

Atheos will be delivered as a standard ZIP file. However, sometimes you might experience extraction problems, corrupt data or other issues.

We suggest to extract the ZIP archive using the default OSX archive utility or by using 7z (7zip). On Windows, we suggest using WinRAR or WinZIP.

### Missing files problem:

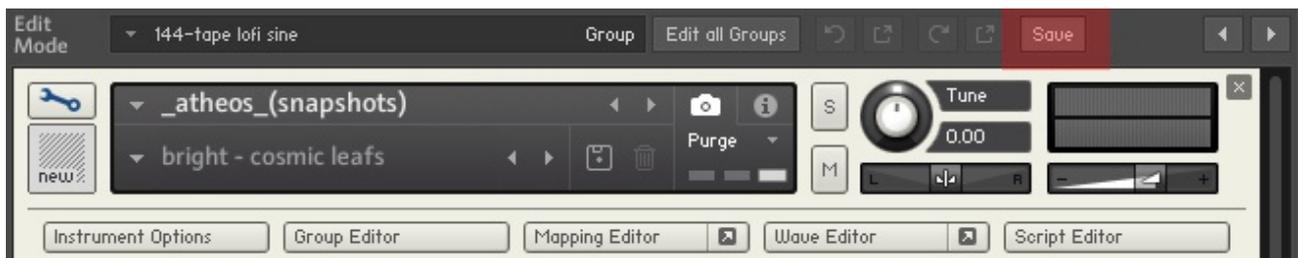
On some machines, Kontakt will tell you that files are missing:



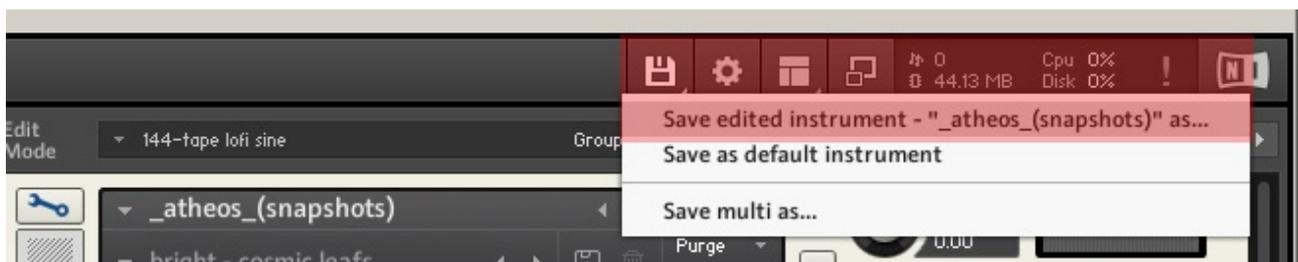
If you're getting such a warning, please click on „Browse for folder“.

A window will pop up where you'll have to choose the folder/drive where you have extracted the Atheos archive to. The folder that needs to be selected should be „**RA\_ATHEOS**“ only.

Click on „okay“. Kontakt should now load the instrument normally. Once that is done, make sure to re-save the instrument by clicking either the save button:



Or by using the file menu:



Make sure to save the patch **only**.

### Slow loading times:

If you are experiencing slow patch loading times, please do a batch-resave. Information on batch-resaving:

<https://www.youtube.com/watch?v=T7BmaI5unE8>

<https://www.youtube.com/watch?v=4reaZG5cCn0>

<https://www.youtube.com/watch?v=gt9z-7t6ODs>



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