# real-time audio manipulator

for KORG NTS-3 kaoss pad

# INTRODUCTION

**Cache** is an effect plugin for real-time audio manipulation, designed specifically for KORG **NTS-3** kaoss pad. Its unique sound engine constantly records all incoming audio and processes it live through multiple included algorithms – such as repeat, robotize, time stretch, vinyl-style stop, rewind, scratch – and much more. The plugin allows you to set up a custom configuration of four such effects at the same time, and then trigger them via four zones on the XY pad. Thanks to its precise timeline control, fine-tuned envelopes, and completely smooth effect switching, **Cache** is a sophisticated, highly practical performance and sound design tool – which is also extremely fun and addictive to use.

#### **SOUND ENGINE**

- Up to four separate buffer-based effects with tempo sync, triggered via four zones on the XY pad
- Nine effect algorithms selectable per each XY pad zone:
  Loop, Repeat, Ping-Pong, Robotize, Stretch, Stop,
  Reverse, Rewind, Scratch
- Up to 4 seconds of 32-bit stereo recording
- High-quality spline interpolation and multiple fade envelopes for completely smooth operation
- Silent plugin initialization, seamless effect switching via four exponential gates

#### SUPPORTED DEVICES

KORG NTS-3 kaoss pad



Loop. Repeat. Ping-Pong. Robotize. Stretch. Stop. Reverse. Rewind. Scratch.

# **BEFORE YOU START**



**Cache** requires system version **1.4.0** or later installed on the NTS-3 kaoss pad and the plugin will not work with older firmware. Before you install any third-party plugins, it's best to make sure that you have the latest **system update** installed on your NTS-3, otherwise there can be major compatibility or stability issues with newer plugins due to feature discrepancies. And you should keep the **KORG KONTROL EDITOR** computer application updated as well.

Follow the links below to check and download the latest system update for your device:

- Software for KORG NTS-3 kaoss pad

# INSTALLATION

# Step 1

Connect your NTS-3 to your computer via a USB cable and turn it on

# Step 2

Launch the **KORG KONTROL EDITOR** application and make sure it receives all the content that is currently installed on the device

# Step 3

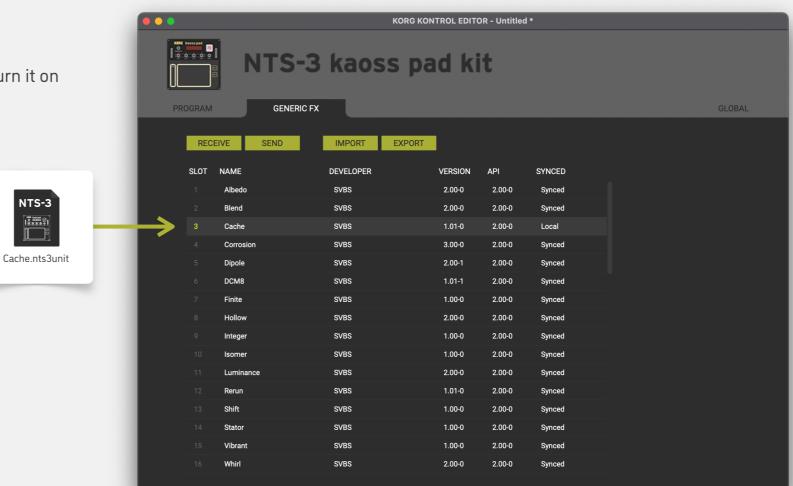
Switch to the **GENERIC FX** tab

# Step 4

Drag and drop the Cache.nts3unit file into any available slot

# Step 5

Click the **SEND** button to install the plugin onto your NTS-3

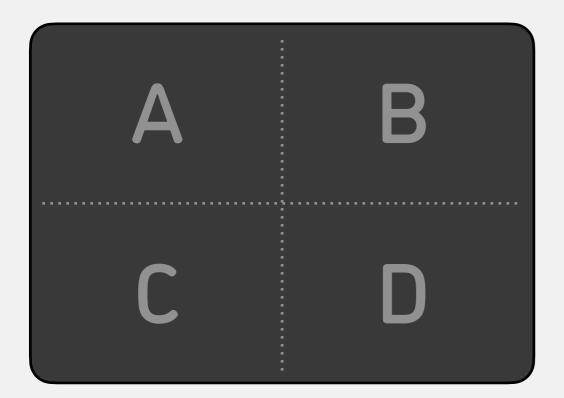




To get the latest versions of this plugin, visit the **Sinevibes** website and request your downloads: www.sinevibes.com/updates

# **OPERATION**

In order to activate processing, **Cache** defines four zones on the XY pad of the **NTS-3** with the following layout:



Once the XY pad corresponding to a particular zone is pressed, the algorithm assigned to that zone is re-triggered and activated – and a gate switches the plugin's output that algorithm. The algorithm is active for as long as that zone on the XY pad is pressed. Once the XY pad is depressed, the gate switches back to the dry signal. The gate signal is processed via a two-pole low-pass filter which makes these on/off transitions quick yet smooth.

By default, **Cache** has these four algorithms configured on its four XY pad zones:

- Zone A: Loop at 1/8 note

- Zone B: **Reverse** at 1 bar

- Zone C: **Stretch** at 4x

Zone D: **Stop** at 750 ms

To create your own custom configuration, you need to use the parameter edit mode on the **NTS-3**: please see the <u>EDITING</u> page for the detailed instructions. Alternatively, you can also use the **KORG KONTROL EDITOR** application on your computer.

# **EDITING**

**Cache** offers a total of 8 adjustable parameters: two for each zone A/B/C/D. Each pair of parameters sets the algorithm type and, depending on the selected algorithm, provides adjustment for its main property: e.g. slice size as a tempo fraction, time stretch amount, stop time. See the <u>ALGORITHMS</u> page for more detailed information.

TYPE A	Effect algorithm assigned to zone A
SIZE A	Size/amount/time value for zone A
TYPE B	Effect algorithm assigned to zone B
SIZE B	Size/amount/time value for zone B
TYPE C	Effect algorithm assigned to zone C
SIZE C	Size/amount/time value for zone C
TYPE D	Effect algorithm assigned to zone D
SIZE D	Size/amount/time value for zone D

To enter the parameter edit mode and create a custom **Cache** configuration, please follow the instructions below (they assume you want the plugin in the FX1 slot, but you can use any other slot of course).

- 1. Press PROGRAM and choose an unused preset using the main dial.
- 2. Press FX1.
- 3. Press and hold EDIT, then press FX1 again. You are now in parameter edit mode.
- 4. Rotate the main dial to select the respective TYPE or SIZE parameter for zone A, B, C, or D (see the table on the left).
- 5. Click the main dial, then rotate it to select VALUE.
- 6. Now you can use the XY pad or the FX DEPTH slider to assign a new value for the chosen parameter.
- 7. Repeat steps 4-5-6 for all the parameters you want to set.
- 8. Press PERFORM to exit the edit mode.
- 9. You can now press EDIT and use the SAVE PROGRAM option to save this configuration as a preset on the NTS-3.

# **ALGORITHMS**

# Loop

Record a slice of audio and play it on repeat for as long as the XY pad is pressed. The size parameter sets the duration of the slice as a tempo fraction (1/32 note to 1 bar).

# Repeat

Record a slice of audio and play it on repeat a set number of times, then restart automatically. The size parameter sets the duration of the slice as a tempo fraction (1/32 note to 1 bar); the number of repeats is set to 4 for regular timing and 3 for triplet timing.

# Ping-Pong

Record a slice of audio, play it back once normally and once in reverse, then restart automatically. The size parameter sets the duration of the slice as a tempo fraction (1/32 note to 1 bar).

#### Robotize

Generate a random number (from 2 to 8) and use it to calculate a smaller section of the defined slice size. Record that section, play it on repeat this random number of times, then restart automatically. The size parameter sets the duration of the slice as a tempo fraction (1/32 note to 1 bar).

### Stretch

Record one bar of audio and play it back in a loop using granular time stretching – thus extending the playback time. The size parameter sets the amount of time stretching (from 2x to 14x).

# Stop

Record up to 4 seconds of audio and play it back while decreasing the playback speed – until it reaches zero (complete stop). The size parameter sets the time it takes for the playhead to come to a complete stop (from 100 to 3000 ms).

#### Reverse

Reverse a previously recorded slice of audio, and play it on repeat for as long as the XY pad is pressed. The size parameter sets the duration of the slice as a tempo fraction (1/32 note to 1 bar).

#### Rewind

Play a previously recorded slice of audio in a reverse loop, while controlling the playback speed to simulate a vinyl record rewind. The size parameter sets the duration of the slice as a tempo fraction (1/32 note to 1 bar). Playback speed goes from 8x to zero within 1 bar.

#### **Scratch**

Play a previously recorded slice of audio in a loop, while controlling the playback speed and direction (forwards/backwards) to simulate vinyl record scratching. The size parameter sets the duration of the slice as a tempo fraction (1/32 note to 1 bar).



# **DOWNLOADABLE SUPERPOWERS**