



etched sounds



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Overview of the instrument

The Ranat Ek (ระนาดเอก) plays a leading role in the traditional Thai Piphat ensemble, which plays the highest order compositions of Thai music, such as for royalty or religious ceremonies, as well as accompanying traditional Thai theatrical performances. Similar instruments can be found throughout south-east Asia, from countries such as Cambodia and Laos.

The Ranat Ek is an idiophone, with 21 bars extending across three octaves. The instrument is played using mallets, which come in two varieties soft and hard. The bars of the instrument are also changeable to allow the playing of two temperaments. There is a set for western equal temperament and another for the Thai tuning system, which is a system that equally divides the octave (7-TET).

In this sample library we have recorded the 2 separate tuning systems struck with hard and soft mallets to ensure every nuance has been captured for use with any style of composition.

The instrument has been recorded at 24-bit and at a sample rate of 48 kHz and contains 5 round robins which allows for a huge variety in sound when played. Each round robin contains 6 velocity layers allowing for very dynamic playing.

We hope these instruments are an exciting additional to your sonic palette and excites your imagination and we look forward to hearing its usage in the world...

Installation

This instrument requires a full version of Native Instruments **Kontakt 5.8.1 (R43)** and above.

This product will **not** work on the free version of Kontakt

Our downloads are managed by Pulse Downloader. To install please download the Pulse Downloader and follow their instructions how to install a sample library using this system.

Envelope and Microphones



Microphones

To activate (●) a specific recording position of microphone, click the grey (●) dot below the dial.

Warmth - warm tone - wide stereo field - recorded using a pair of classic large diaphragm microphones

Classic - A classic sounding recording - using a pair of medium/ large multi pattern diaphragm microphones

Overheads - warmth and fullness - a pair of classic pencil mics.

Room - recorded at some distance from the instrument using a pair of classic pencil mics

Stereo width - this widens the stereo image of the sound. The lowest setting makes the sound mono whereas past the middle, the sound gets wider. The line indicates widening amounts which may introduce mix issues.



Invert - click this symbol to swap the left channel to the right channel and vice-versa.

(Amplitude) Envelope

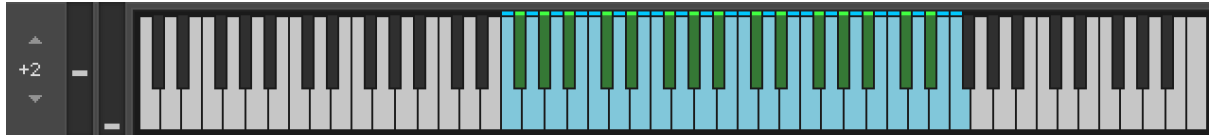
Attack - Controls the attack time in milliseconds (ms). The lowest amount will make the sound start instantly whereas higher ones will allow the sound to fade in gently.

Decay - Controls the time (ms) after the peak of the attack time into the sustain portion of the sound.

Sustain - This is the volume (dB) of the sound having completed the attack and decay parts of the amplitude envelope

Release - This is the time (ms) that the sound dies away from the sustain level to nothing. The lowest setting will mean that the sound stops the moment the key is released, whilst higher values will make the sound fade away more gradually.

Keyboard (and tuning)



Blue notes – These are the actual recorded samples.

Green notes – these are the chromatic notes which have been added for the sake of western users. Should you wish for your music to be transferred to a score for playing by a musician it is advised to only use pitches available in blue (white piano notes)

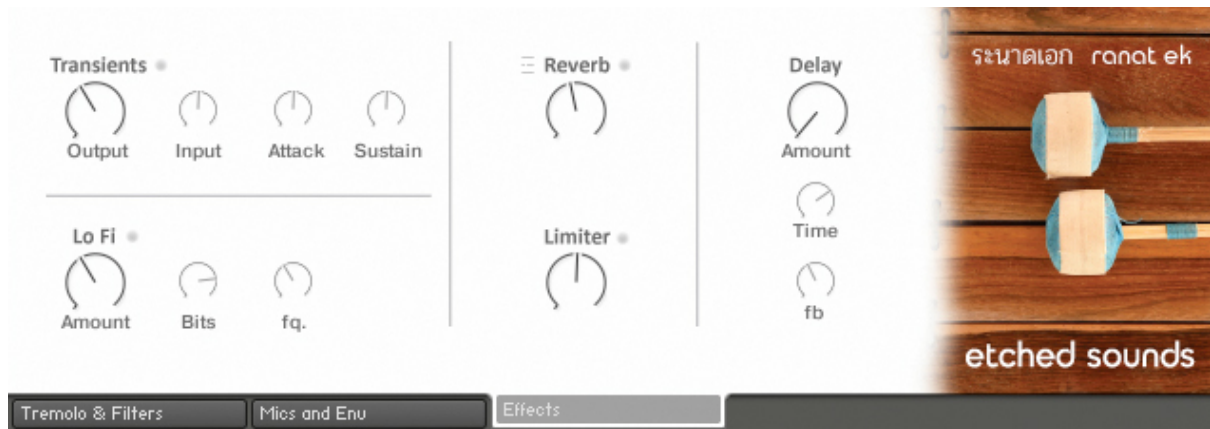
Additional information (Temperament)

The Western labelled instruments are a separate collection of bars which are strung over the Ranat base and are tuned to equal temperament (12-TET)

The Thai labelled instruments use the original bars which are in ‘Thai’ tuning (7-TET). For the sake of easy transference to a printed score, the notes have been mapped to the white notes of the piano. The chromatic notes were then generated using intervals halfway between these pitches (85.7 cents rounded to 86 cents assuming that tones are 171.43 apart).

We acknowledge that this is only mathematically correct but felt that this was the best way to achieve a chromatic instrument given this specific instrument cannot be played chromatically. Therefore, we advise to retain an authentic sound, that the white notes only be used. However, feel free to experiment!

Interface - Effects



To activate (●) a specific effect, click the grey dot (●) next to the text of the effect required.

Transients – this can be used to affect the attack and sustain sections of a sound.

Output – controls the overall gain of the output from the effect.

Input – controls the gain of the signal going into the effect.

Attack – scales the attack portion of the sound.

Sustain – scales the sustain portion of the sound.

Lo-Fi

Amount – this dial sets the return amount of the effect.

Bits – set the perceived re-quantised bit depth of the sound.

Frequency – this changes the perceived sample rate of the sound.

Reverb – this dial sets the return amount of the effect.

☰ – Click this symbol for a dropdown menu of different reverbs.

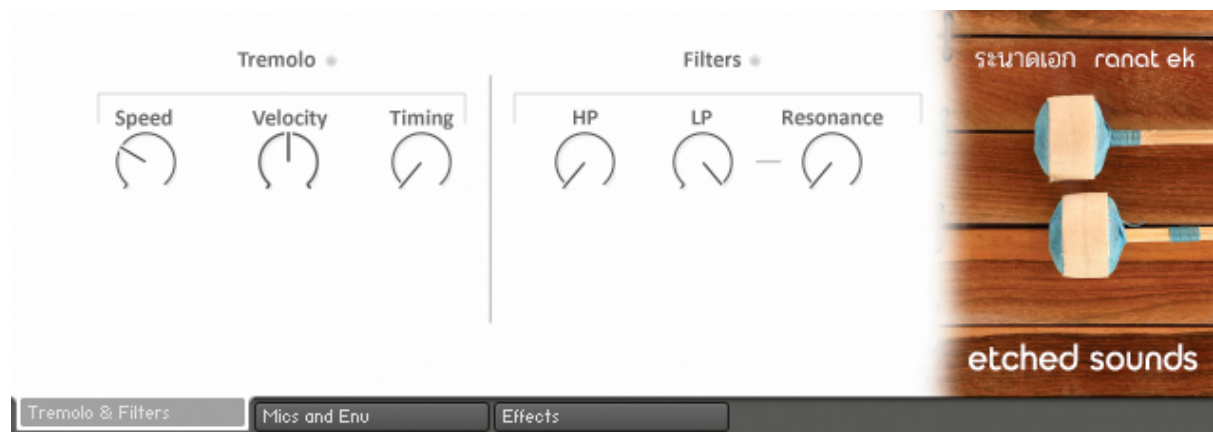
Limiter – this dial sets the gain input level to the effect. The output is limited to 0.0dB

Delay – sets the return level of the effect.

Time – controls the delay time in ms.

Feedback – the controls the amount of delay fed back into itself.

Interface - Tremolo & Filters



Tremolo

Speed - Tempo matched to your DAW, this is the speed at which 2 notes will tremolo. Tremolo only happens between 2 notes and the instrument is only ever played using two mallets

Velocity - This is the amount of velocity variation that will occur in all notes that tremolo activates.

Timing - Adds a slight delay/ swing to the notes that occur during the tremolo.

Filters

HP - High-pass filter - cuts away the sounds below the dial's frequency.

LP - Low-pass filter - cuts away the sound above the dial's frequency.

Resonance - this accentuates the frequencies around the Low-pass frequency.

Credits and Additional information

Produced by: Peter Mayne

Recorded by: Jean-David Caillouët and Peter Mayne

KSP programming: Peter Mayne

Additional KSP programming: Evil Dragon

Percussionist: Tossaporn Tassana

Beta product testing: Rob Kelly, Seth Scott, Jean-David Caillouët

Ranat image: Chonchit Jansuebsri © 123RF.com

Recorded in Bangkok.