

Raindrop & Blade

- 落英 -

User manual



Index

Index.....	I
Chapter 1. Introduction	1
Chapter 2. Installation.....	2
Chapter 3. Registration	3
Chapter 4. Loading	6
Chapter 5. User Interface.....	7
5.1. Mixer	7
5.2. Sound Field Controlling.....	7
5.3. Expression Control	8
5.4. Performance Control.....	9
5.5. Preset Manager	11
5.6. MIDI Keyboard Mapping.....	12
Chapter 6. Effect	13
6.1. Overview	13
6.2. Compressor	14
6.3. PEQ	15
6.4. Chorus	16
6.5. Ping Pong Delay.....	17
Chapter 7. Reverb	18
Chapter 8. Pattern Library.....	19
8.1. Overview	19
8.2. Pattern preview	20
8.3. Apply pattern	20
Chapter 9. Advanced settings	21
9.1. Sample Folder Location.....	21
9.2. UI Rendering Mode	21
Chapter 10. Q&A.....	22
Chapter 11. People.....	23

Chapter 1. Introduction

Yangqin is an instrument that rich in expression. The ability to express both soft and percussive sound makes it distinguish among others. One characteristic makes Chinese Yangqin stand out is: the hammer is made of bamboo.

By tapping the 2 flexible hammers, you can create sound with Chinese element. This sound is neither too soft nor too strong, but it can be tender or intense. We proudly named it: Raindrop & Blade. We wish it brings you soft sound like raindrop, without losing its insane feeling.

- Design

When we began initial design for Raindrop & Blade, what we have in mind is not only recording the actual Yangqin, but also presenting a more artistic sound through our work in recording, mixing and adjusting. We also want its tone to be more flexible, adapting various genres, so you can use it in video games, films, pop music, or traditional Chinese music, even EDM.

So we decided to record using multiple microphones and keep it that way in the actual software, in order to provide users more customization.

- Recording

We used two parallel microphones, known as “A-B technique”, for near-field recording. For mid-field, the distance between the two microphones is nearly 8 meters (26 feet). It’s a bold move for an instrument has the size like Yangqin, but this is the only option for us to get the sound we prefer. These two microphones are in the actual software. By adjusting their distance and proportion, you’ll get the diverse sound we talked about.

20 different microphones have been tried during recording sessions. We choose a pair of Chinese brand microphone among all the classic brands! Yes, we’re shock as you are. But the performance was so awesome as it highlights the “taste” of bamboo and wood from Chinese Yangqin. The feel of Chinese is amazing!

- Equipment used for recording and mixing:

SSL 9080

NEVE 1073 x2

NEVE 33609

Maag EQ

A-800 tape machine

Chapter 2. Installation

Minimum System Requirements

- ✓ Intel or AMD CPU supports SSE 3
- ✓ Mac OS X 10.9 or Windows 7
- ✓ 4GB RAM
- ✓ 4GB free hard disk space

Please note that Logic Pro 9 is NOT supported, please use Logic Pro X or higher.

Raindrop & Blade has two installers. Program installer includes the independent program, plug-ins and patterns. Sample installer includes audio samples. Both installers need to be installed but not in that order.

- Mac:

Please find installation file "RaindropAndBlade-programs-1.x.x-retail-en_US-x86-osx.dmg" and "RaindropAndBlade-samples-1.x.x-osx.dmg", double click and follow the instructions.

- Windows:

Please find installation file "RaindropAndBlade-programs-1.x.x-retail-en_US-x86-win.exe", double click and follow the instructions.

Samples are provided as an ISO image. If you are using Windows 10, please right click on file "RaindropAndBlade-samples-1.x.x-win.iso" and select "Mount" on pop-up menu, or select "Windows Explorer" in "open with" sub-menu. Then run program "RaindropAndBlade-samples-1.x.x-win.exe" in mounted drive to run installer program. If you are using older systems, please use some third-party virtual drive applications. You could also unfold the ISO image using compressor applications (winzip, winrar, 7-zip, etc.) and run installer program.

Chapter 3. Registration

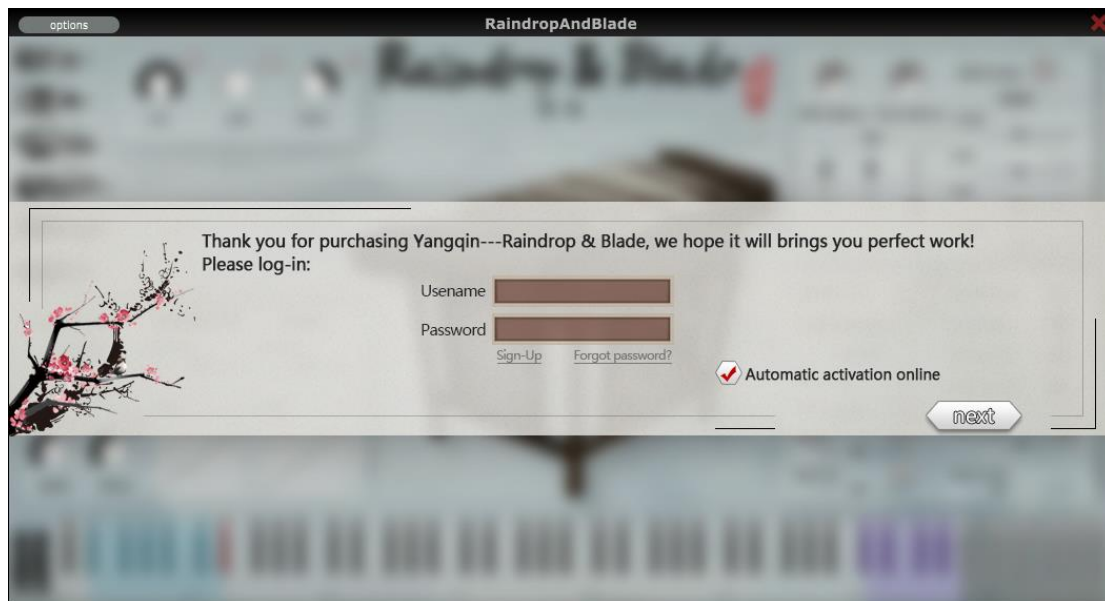
Serial Number Binding

To ease users managing purchased products, all products need to be bind into a ThreeBodyTech account. Please visit <https://my.threebodytech.com/register> and create account.

After account created, please login and visit bind serial number page, enter RaindropAndBlade serial number and it will be bound under your account.

Activation

When you first run RaindropAndBlade, following page will be shown:



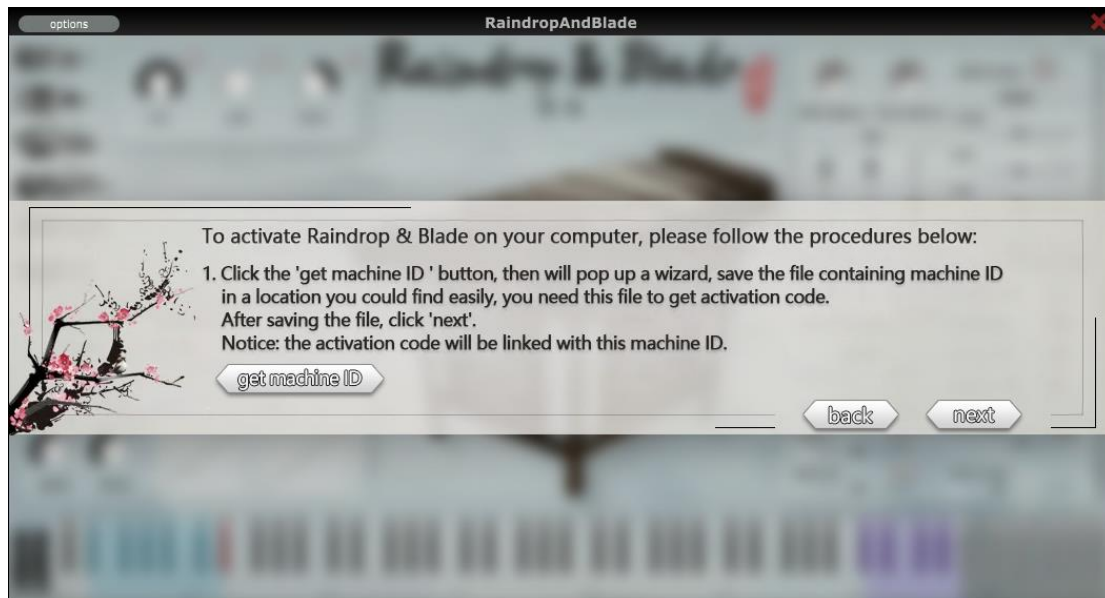
Now you have two choices: automatic activation or manual activation.

Automatic Activation:

Please enter your account name and password, keep Automatic Activation checkbox selected, then click the next button. If you have Internet connection to your computer and your account have bind with corresponding serial number, your product should be activated automatically. We recommend to use the standalone application version of RaindropAndBlade to perform automatic activation, as host DAWs sometimes block plugins' network connection.

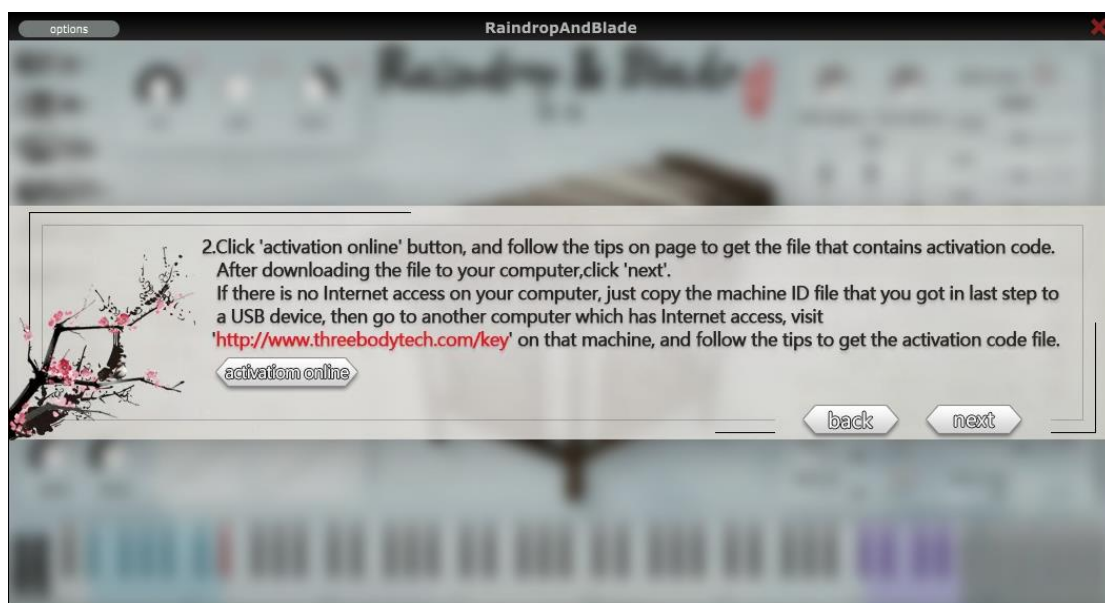
Manual Activation:

If you don't have Internet connection to your computer installed with RaindropAndBlade, you can activate it manually. Deselect "Automatic Activation" checkbox and click the next button, the page below would be shown:

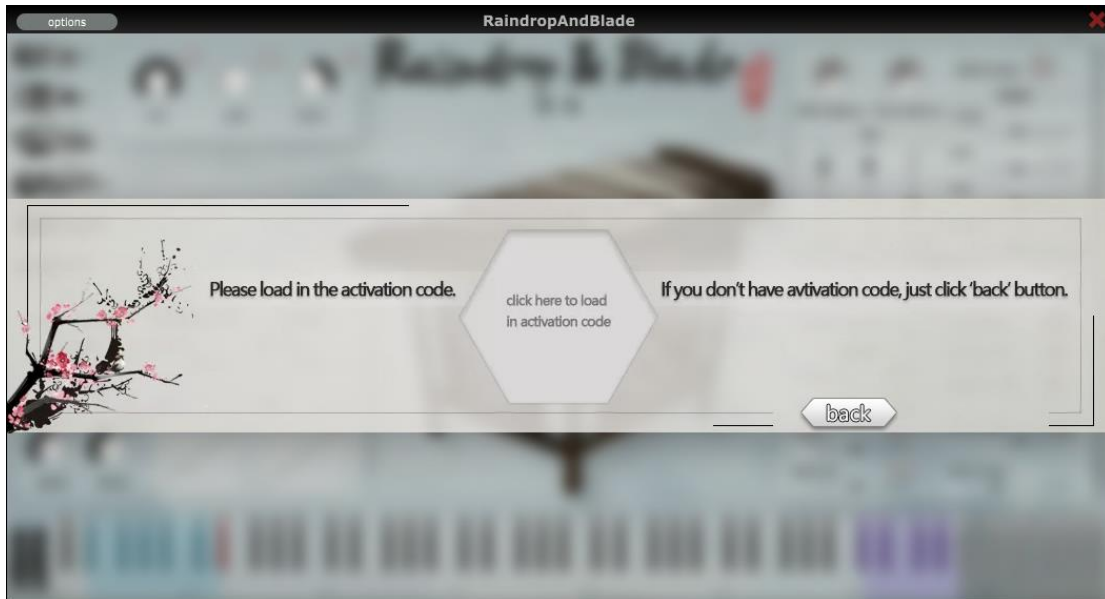


Now you need to perform a series of operations:

- First, click get machine ID button, your computer identification information will be stored to a file. click the next button and the page below would be shown:

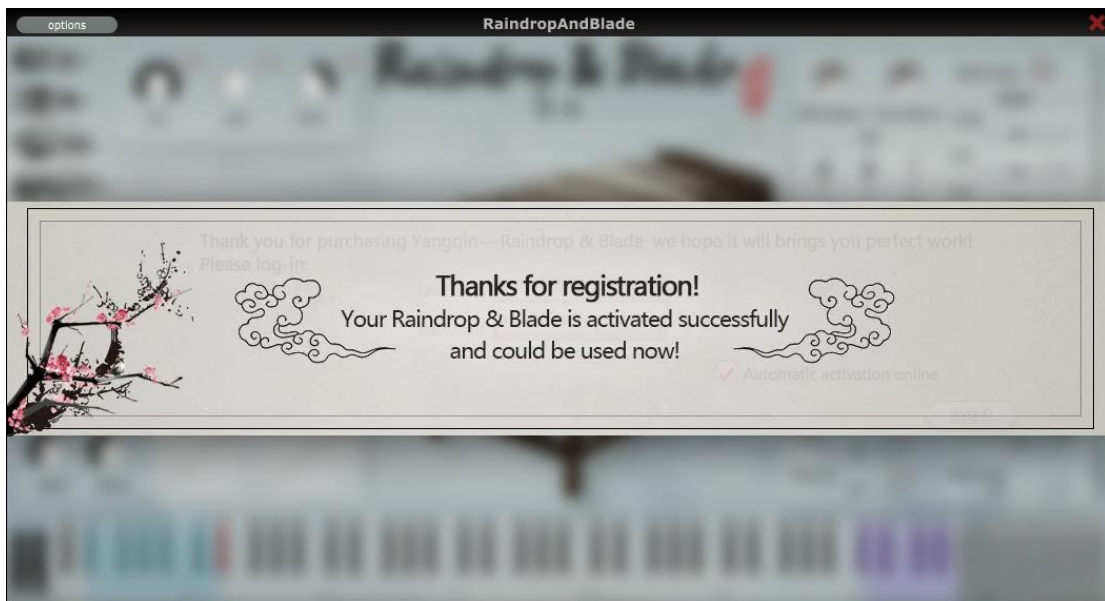


- Find another computer that is connected to the Internet, and use mobile storage to copy the machine ID file to that computer.
- Visit <https://my.threebodytech.com>, login to your account and switch to my product page. Select product RaindropAndBlade that you need to activate, select an available serial number, and upload the machine ID file on manual activation frame.
- The website would hint you to download the activation file. You probably need to save it to a mobile storage to copy back to the computer that needs activation.
- Come back to the computer installed with RaindropAndBlade, click the next button and the page below would be shown:



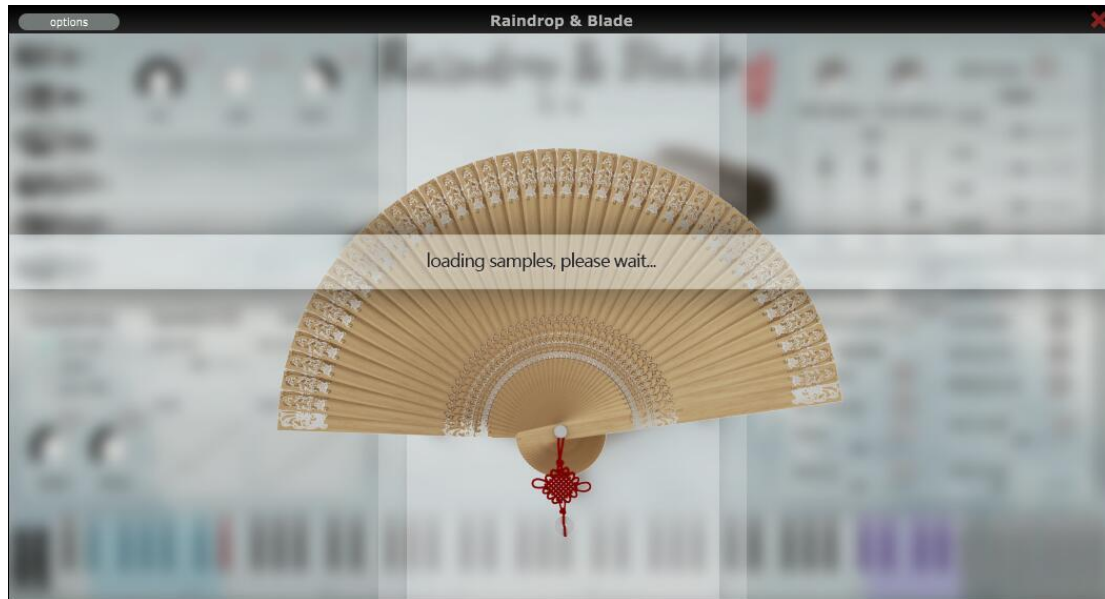
Copy the activation file to this computer and import it here, and it's done.

No matter you activate RaindropAndBlade by automatic or manual method, if you see this page:



Congratulations! Your RaindropAndBlade has been activated and you can use it now.

Chapter 4. Loading



After successful registration, the loading page will be shown each time the first instance of Raindrop & Blade is opened in your DAW. It will tell you the current loading progress of the disk-stream buffer.

As the amount of buffer data is large, all Raindrop & Blade instances in one host DAW progress shares one same buffer. In result, adding additional instances will not lead to additional buffer loading time. The buffer will start loading when the first Raindrop & Blade instance is created, and will be released when the last instance is released.

Chapter 5. User Interface

5.1. Mixer

Vol

Adjust output master volume.

Pan

Set the position in stereo channels.

Tune

Fine-tune on pitch of the instrument, range from +100 cent to -100 cent.



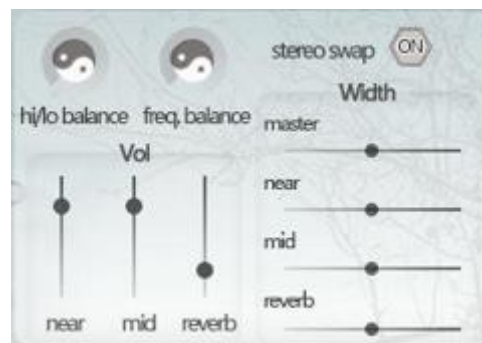
5.2. Sound Field Controlling

Hi/lo Balance

Set the ratio between high pitch volume and low pitch volume.

Turn right for higher high pitch volume and lower low pitch volume.

This knob is usually used when we want to highlight the high pitch sample without change the EQ, or weakening low pitch volume in order to play broken chord.



Freq. Balance

Turn right for warmer sound, left for cooler sound. This knob switch the tone between Yin and Yang.

Stereo Swap

There are two types of stereo, one uses the position where the performer stands, the other one is like the audience, facing the performer. Both positions will be used in tracks so we provided the "Stereo Swap" feature. By default, it's off and you'll get the position as the audience, facing the performer. When it's on, the performer's position will be used.

Vol

Raindrop & Blade used 3 microphones to record: actual recording of near-field, mid-field and reverb-simulated far-field.

- **Near** sets the volume of near-field microphone
- **Mid** sets the volume of mid-field microphone

- **Reverb** sets the volume of simulated far-field microphone

Width

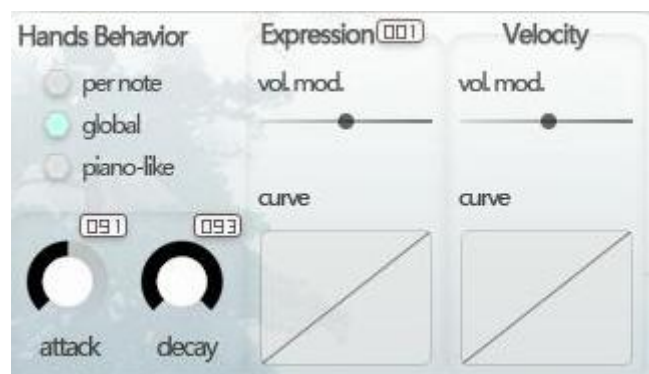
Master sets width of all microphones

- **Near** sets the width of near-field microphone
- **Mid** sets the width of mid-field microphone
- **Reverb** sets the width of far-field microphone

5.3. Expression Control

Hands Behavior

While playing Yangqin, each hand holds a hammer, thus two note goes on at the same time in reality. Three-Body Tech always believes virtual instrument should be beyond reality somewhere, so there's no limit on the two note requirement. Please note, the tone of notes triggered by left or right hand is different. We've captured the details and let you choose by selecting three of the following:



Per Note

Notes will be triggered in the order of right hand, left hand, right hand, left hand... When using different pitch, it goes back and starts from right hand.

Global

Notes will be triggered in the order of right hand, left hand, right hand, left hand for all the notes.

Piano-like

Left hand plays high pitch note, right hand play low pitch note. This isn't a common way of playing Yangqin, but it brings some kind sense of unity which is amazing.

Attack

Strength of attack. Turn right to increase.

Decay

Length of decay. Turn right for longer sustain.

Expression

Controls the expression of tremolo. The curve sets the velocity curve of expression (similar to velocity curve on MIDI keyboard)

Velocity

Different performer brings different feeling to the songs. Sometimes we need more dynamic for velocity, sometimes not.

Controls the expression of velocity. The curve sets the velocity curve of expression (similar to velocity curve on MIDI keyboard).

Performers always want the plug-in reflect the velocity that meets their expectation. But considering different MIDI keyboards and different perform habits, it's hard to design one velocity suits for everybody. Thus we give you the freedom of adjusting Expression and Velocity.

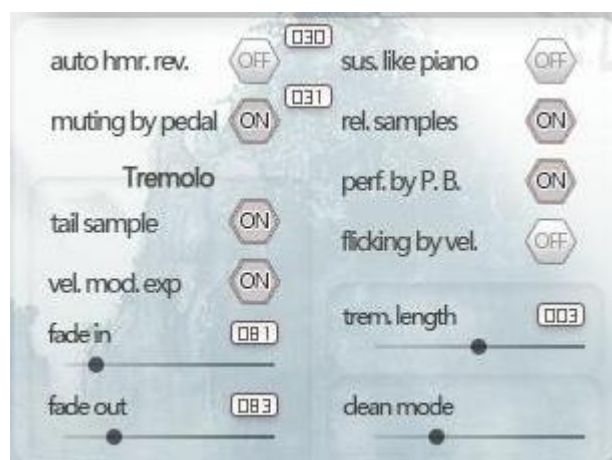
5.4. Performance Control

Flicking

Flicking is one of the performances of Yangqin. By flicking the sticks lightly over the strings, causing them to vibrate, which results in a short, quick hits.

Tremolo

Most essential and hard performance of Yangqin. Tremolo means using both hands to play quick, intense and continuance notes (one note or multiple notes), usually used to express the continuance of emotion.



Hammer Revert

Playing with the bamboo side of hammer for a crisper, more percussive sound.

Auto Hammer Rev.

One of the common way of playing, left hand plays low pitch notes, while right hand utilize hammer revert to play high pitch notes. By playing in this way, you can make high pitch notes brighter, and these notes usually make up the main melody.

Muting by Pedal

When notes just stopped, hitting the strings will make sounds like muting in guitar performance. This is uncommon in actual Yangqin performance, but we think it's worth included here because of the unique sound. We truly wish you could utilize this feature in your work. When it turns on, using CC64 sustain pedal will turn every note into muting. Please note, when "Sus. Like piano" is on, muting by pedal will automatically turns off.

Tail Sample

When a series of tremolo ends, the last note will sustain naturally. If this feature is on, this last note will keep on playing instead of stop immediately.

Vel. Mod. Exp

Turn on this option will trigger a sample at start of tremolo performance.

Fade in

The length of tremolo fade in.

Fade out

The length of tremolo fade out.

Sus. Like Piano

There are two methods to release note: using hands or pedal. Both are very different from the release method in piano performance. The need of release in Yangqin performance is rare. The way treated for sustain is usually “let it decay naturally” for both audiences and performers. This is why it’s different from sustain pedal on piano. The reason we designed this switch is, when it’s on, the sustain pedal functions the same as the one on piano. When it’s off, actual performance will be kept and the note will decay naturally.

Rel. Samples

Set how note ends. Trigger a real release sample, or fade out like a Synthesizer.

Perf. by. P.B.

Just like piano, general speaking, pitch bend cannot be used for actual Yangqin. Thus bend wheel will be useless. So we designed a feature that utilize bend wheel to switch between performances. When it turns on, bending upwards will trigger 3 different kind of flicking. Bending downwards will trigger tremolo. When it turns off, bend wheel will simulate pitch bend for Yangqin.

Flicking by Vel

When it turns on, high velocity will trigger flicking.

Trem. Length

Set tremolo frequency to fit with music of different speed.

Clean Mode

The physical characteristic of Yangqin is somewhat similar to piano, but one huge different is you can’t stop a note by releasing the actual note on keyboard for Yangqin as for piano. Though modern Yangqin now has pedal, performers still keep the habit of “let it decay naturally”. We designed this “clean mode”. In this mode, the sustain for Yangqin won’t follow the real physical characteristic, instead, it will sustain however you would like. For instance, when you switch one chord to another, or play it real fast, clean mode will detect the notes aren’t supposed to be in the chord and lower their volume, thus eliminate the unnatural feeling it creates. Increase the slider for “cleaner” sound. But notice when sound gets too clean, it may makes the Yangqin unreal. Adjust the slider for the best sound.

5.5. Preset Manager

The file name extension for Raindrop & Blade preset file is “.rnb”. This file contains all the parameters, MIDI CC numbers and effect setting. Use “save”, “load” button on the upper left corner to save and load presets.

Settings

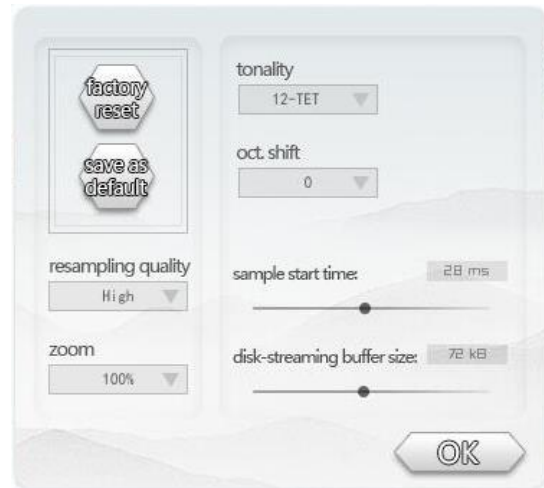
Click **settings**, you’ll see advanced settings. Click **factory reset** to restore factory setting. Click **save as default** will save the current setting as the default setting and this setting will be applied for every newly opened instance.



Resampling Quality

The sample rate of Raindrop & Blade and your project may be different, thus resampling is mandatory. This parameter adjusts resampling quality, whilst higher quality would consume more CPU power.

This option will take effect as soon as you change it.



Zoom

Scale whole UI to fit screen of different sizes.

Please note: the new size will only be applied when you reopen the host.

Tonality

Coming soon in future updates.

Oct. Shift

This option will shift output pitch of Raindrop & Blade by specified number of octaves.

Sample Start Time

Increase this value will decrease delay, but increase to much will “eat” the start of sample and makes it unnatural.

Disk-Streaming Buffer Size

This parameter controls the amount of preload bytes for each sample. A larger amount of bytes would reduce potential sound break caused by slow hard disk, but would also significantly increase memory usage. See section 4.4 for further details.

This parameter will take effects after you closed all instance of Raindrop & Blade in a host DAW, and would affect all of them.

5.6. MIDI Keyboard Mapping

E0-C5: Leg

D#-1: Downward 1

E-1: upward 1

F-1: upward 2

F#-1: harmonic

G-1: hammer revert

G#-1: flicking

A-1: flicking/tremolo

A#-1: fast tremolo

B-1: tritone tremolo

C0: oct. tremolo

C0#: tremolo

Chapter 6. Effect

6.1. Overview

The effect rack of Raindrop & Blade origins from the famous HeavierFX.

Besides convolution reverb, we hand-picked some effects from H7S's effect rack that suitable for Raindrop & Blade.



6.2. Compressor



Description

A compressor can be used on both clean sound and post-effects sound. It comes with side-chain low-pass, high-pass and peak-gain filters.

Controls

- **Lookahead:** delays the input signal but leaves detection signal non-delayed, and uses the non-delayed signal to drive the compression of the delayed signal. Applying this function could start to raise the extent of compression before a strong attack occurs, which could achieve optimum compressing effect and avoid unnatural sounds.
- **Thr.:** Sets the threshold of the signal at the input of compressor. Turn down for more compression.
- **Ratio:** controls the amount of signal that is attenuated when compressor is in action. The higher the ratio, the greater the amount of compression, and the more dynamics get evened out.
- **Attack:** sets the time need for compressor to engage. Longer attack time retains more original dynamics of a signal.
- **Release:** sets the time need for compressor to return to normal state after signal falls below the threshold. Short release times means compressor tracks slight level changes, thus may producing a choppy sound.
- **Level:** the master volume.
- **Low-Cut:** sets the cutoff point of the high-pass filter of detection chain, higher value will result in avoiding compress low frequency sound.
- **High-Cut:** sets the cutoff point of the low-pass filter of detection chain, lower value will result in avoiding compress high frequency sound.
- We also have an one band EQ which has **Freq.**, **Q** and **Gain** to process detection signal. You can set the freq. you love, compressor will focus on compress those signal first.

6.3. PEQ



Description

A 4-band parametric equalizer.

Controls

- **Freq:** knobs set the center frequencies for each EQ stage.
- **Gain:** knobs set the amount of boost or attenuation.
- **Q:** knobs control the filter sharpness.
- **Level:** the master volume.

6.4. Chorus



Description

A delay-based effect unit that generates chorus-like sound.

Controls

- **Speed:** controls the tempo of the LFO causing the phasor modulation, and **Sync** will synchronize the modulation speed with host tempo.
- **Stereo:** sets the width of sound. When turns on, the effect will produce a wider sound.
- **Depth:** controls the depth of modulation.
- **Delay:** sets the amount of delayed time between input and processed audio.
- **Mix:** sets the ratio of wet and dry sound. Turn it up for more processed sound.
- **Level:** the master volume.

6.5. Ping Pong Delay



About

Ping Pong delay provides a special delay effect. The first delay will be in the left channel, and the second in the right, then back to left, then back to right (or vice versa). The delays would sound like a ping pong match if you were watching from the side of the table, right in front of, and facing the net.

Controls

- **Sync:** matches the tempo with the speed of the host.
- **Time:** sets the time between delay taps.
- **Feedback:** sets the feedback level from the final repeat to the input of the delay line.
- **Low-Cut:** sets the cutoff point of the high-pass filter. Higher values produce a thinner sound.
- **High-Cut:** sets the cutoff point of the low-pass filter. Lower values produce a darker sound.
- **Depth:** knob allows you to detune the delayed sound. A LFO will be used for control the pitch of delayed sound, so that brings a sense of chorus for the current tone. The deeper the depth, the more the detuning. If it's too deep...Well, the tone may be off!
- **Rate:** sets the frequency of LFO.
- **Mix:** sets the ratio of wet and dry sound. Turn right for louder wet sound.

Chapter 7. Reverb



- **ON/OFF:** Switch of reverb. When turned off, no reverb will be applied.
- **Reverb:** Use the drop down window to select different type of reverb. Each reverb has a given “setting” in order to give you a basic understanding of what this reverb sounds like.
- **Reverb Dly:** delay the wet sound of reverb.
- **Size:** set the length of convolution.
- **Damping:** higher value for lower early reflection.
- **Decay:** higher value for quicker decay
- **Low freq.:** set the frequency of low frequency EQ.
- **Low gain:** set the low gain of low frequency EQ.
- **High freq.:** set the frequency of high frequency EQ.
- **High gain:** set the gain of high frequency EQ.
- **Width:** set the width of reverb. This is same with the Reverb Width slider in top right of main interface.
- **Vol:** set the volume of reverb. This is same with the Reverb Vol slider in top right of main interface.

Chapter 8. Pattern Library

8.1. Overview

It feels frustrated when you run out of ideas. No worries! We prepared a pattern library with segments specially made for Raindrop & Blade. Besides MIDI segments, each pattern comes with its own effect setting. It helps when you want to quickly search for tone and inspiration. You can also build your own pattern library.

Click on “patterns” in upper left corner, you’ll see patterns manger.



To the left is group manager, functions as folder just like in operation system. You can select the actual pattern you want on the right. At the bottom you can play the pattern selected.

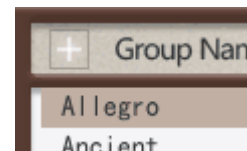
Group Manger

Click on any group under group manager, you’ll see all the patterns in this group on the right.



Click on the “pencil” icon to edit the name of group, click on the “trashcan” next to it to delete. Please note once the group is deleted, all patterns in this group will be deleted. You can rate the group by clicking on “Yinyang” icons.

Click on the “plus” icon in upper left corner to add a new group.



Patterns Manger

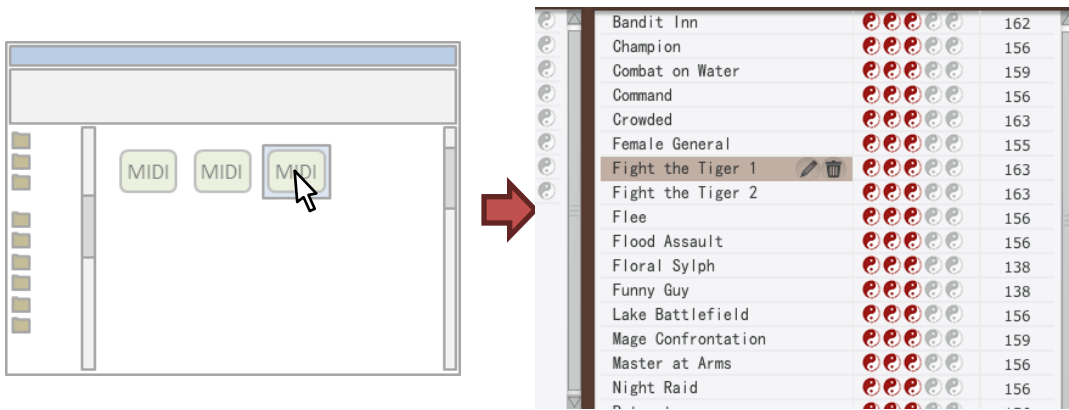
Click on the “pencil” icon to edit the name of pattern,



click on the “trash can” next to it to delete. You can rate the pattern by clicking on the “Yinyang” icons.

The numbers under “Tempo” is the default tempo for this pattern.

Users can make their own MIDI pattern by save a MIDI file, then drag the file into pattern library.

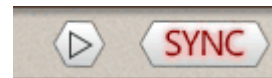


After dragging, the first track in the MIDI file will be used as pattern content. At the same time, the current setting of the plugin will be saved as the preset of this pattern.

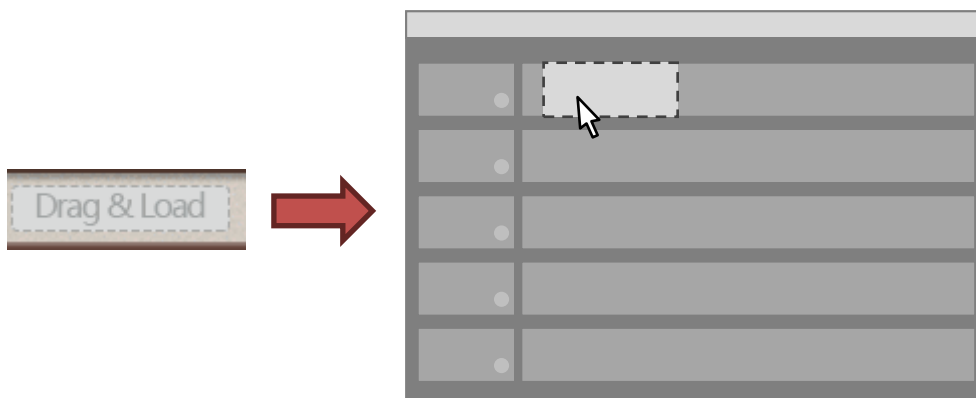
Some Hosts provide an easier way to drag pattern, which is dragging direct from MIDI tracks. Please check your Host to see if it has this feature. Overall, dragging MIDI file is always supported for system file browsers.

8.2. Pattern preview

- The triangle at the bottom left is the **play** button. All patterns have corresponding settings. When you play a certain pattern, Raindrop & Blade will temporarily adjust all the parameters stored inside it. Then if you drag the pattern being played and use it, all parameters will be applied permanently. If you don't and just stopped playing, then Raindrop & Blade will resume to the previous setting.
- Turns on the **Sync** button next to play button will sync the tempo with the Host. When turned off, all patterns will be played at its default tempo (the number under Tempo).



8.3. Apply pattern



First, select the pattern you like, then drag the “Drag & load” button to a MIDI track in DAW, you’ll get the MIDI pattern.

Chapter 9. Advanced settings

You'll find "ThreeBodyTech/RaindropAndBlade" folder from system application settings path. You can adjust advanced settings from this folder.

For Windows, it's located: C:\Users\[your_name]\AppData\Roaming

For Mac, it's located: ~/Library

Please note: If you haven't read this Chapter or not sure 100%, do not modify the content in this folder.

9.1. Sample Folder Location

Sometime you want to move the sample folder after successful installation. If you manually move the folder to a new place, Raindrop & Blade won't detect it correctly. Then you can edit "SamplePath.txt" and change the path to the new place where you moved the folder.

If you don't want to or don't know how to edit "SamplePath.txt", no worries! Raindrop & Blade will ask you to select new path for sample folder when not able to locate it.

9.2. UI Rendering Mode

Raindrop & Blade has two UI rendering modes: CPU mode or GPU-accelerated mode. CPU is commonly used but will cost extra CPU usage, while GPU-accelerated mode won't cost much CPU but may cause rendering glitch on some machines. By default, Raindrop & Blade uses CPU rendering on Windows and GPU-accelerated rendering on Mac. If you find glitches or delay, you can search for "GPUConfig.txt" in setting files and modify then restart. It's simple: type "0" for CPU and "1" for GPU.

Chapter 10. Q&A

How many computers could one serial number activate?

Each serial number could activate Raindrop & Blade on two different computers.

Please visit <https://my.threebodytech.com> and manage your machines bound to serial numbers in your user account. There are limits on deactivation frequency, and if the system hints a failure, please contact us with email below and describe your situation: support@threebodytech.com.

What size should I set disk-stream preload?

If you can run Raindrop & Blade without any problems, then just keep the default values. If you get broken sound like clicks, pops or very short notes, try to set it to a larger value to lower the load on your hard drive. If your disk is fast (such as SSD), you may try to lower this value to save memory.

Can Raindrop & Blade instances from multiple hosts share sample usage?

Unfortunately, No. Only Raindrop & Blade instances in the same host can share samples. That's because different host DAWs are in different processes, and sharing memories from multiple processes may cause problems like extra delay or CPU usage.

If you need to ReWire multiple DAWs together, we suggest loading Raindrop & Blade into the master host DAW.

How many notes can I play simultaneously?

In reality, only two notes because you are using only two hammers. But as virtual instrument there's no limit.

How do I report bugs?

If you find any bugs, please contact us at: support@threebodytech.com. we'll response as soon as possible.

Chapter 11. People

Product Design

Ke Meng, Wei Feng

Program Development

Ke Meng, Xi Yang, Nathan Jiang, Ruixiang Hang, Lei Wang, Zhen Wang

Sound Design

Ke Meng, Wei Feng

Editor

Marshall M, Kaijie Zhou, Jiawen Qu

UI Artist

Ruyue Gao, Kaiting Meng

Art Director

Han Wang, Yun Ma, Qunhua Xiao

Special Thanks

Jun Chen, Wei Jiang, Nan Tang, Yu Hong, Yanda Wang, Qi Meng, Feng Pan, Fang Yang,
Robert Leuthner

Users of Heavier7Strings

Our friends and family

Midifan, Audiobar, CNKeyboard, and all enthusiasts of music!

Raindrop & Blade User Manual

Edited by Kaijie Zhou, Wei Feng and Ke Meng

Create Time: October 17, 2018

Edit Time: January 7, 2021

Copyright © 2021 TBTECH Co., Ltd. All Rights Reserved

Three-Body Technology

<https://www.threebodytech.com>