## **User Instructions**

## How to modify the configuration parameters?

The various parameters of this software can be modified using <code>tools/change\_settings.exe</code> or directly to config.py, save it and then open the software to see the changes, or you can press <code>Alt + s</code> on the computer keyboard to open the page to modify the configuration parameters (<code>Alt</code> is the default setting key. You can modify the configuration parameters in the configuration parameters, please see the manual for the corresponding parameters).

### How to change the background image?

Change the parameter background\_image in the settings file to the path of the background image you want to set, save it and reopen Ideal Piano. For other parameters, please refer to the setup manual.

#### What do the buttons on the main screen do?

Click the play button to enter the computer keyboard mode, click the midi keyboard button to enter the midi keyboard mode, and click play midi to enter the midi file mode.

## What should I pay attention to when playing with a MIDI keyboard?

It is better to open Ideal Piano only after the midi keyboard is connected to the computer, or open Ideal Piano first, don't click the midi keyboard button, then connect the midi keyboard to the computer, then click the button, so as to make sure your midi keyboard can be detected properly in the software. If the midi keyboard still does not respond, then press shift on your computer keyboard to display the MIDI ports currently available on your computer, you can confirm the MIDI port number you need to use by the name of the corresponding device, then open change\_settings.exe to change the value of midi\_device\_id to the one you want to use MIDI port number, then reopen Ideal Piano.

## Why can't Ideal Piano detect my MIDI keyboard?

If you open the sequencer software, the midi keyboard is already available in the sequencer software, then Ideal Piano can't detect your midi keyboard at this time, because a midi keyboard can only control one software at most, so at this time the sequencer software has already occupied the midi keyboard, and Ideal Piano can't detect the midi keyboard.

If you want to use a midi keyboard in a sequencer and also use Ideal Piano, there is a very simple solution.

Using loopmidi, a free software, you can use both arranger software and Ideal Piano to play midi keyboard, the procedure is as follows.

#### How to use Ideal Piano with DAW?

#### Using a MIDI keyboard in the DAW

With loopmidi, a free software, you can play with a midi keyboard in the DAW, and at the same time Ideal Piano can display the current notes and the corresponding chords, so you can listen to the instrument you want more easily and see what you are playing in Ideal Piano.

Take FL Studio for example, first open loopmidi, create a new midi port, (click on the + sign below) and then open FL Studio, in the midi settings in the options, select the midi keyboard you are connected to on the input side, and select the new midi port you just created on the output side.

The input midi keyboard should be enabled, the port should not be set (left blank), and the output midi port should be set with a port number, for example 0.

Then load an instrument sound source and set the midi output port number for this instrument to the same number as the output midi port.

Then open Ideal Piano, change the midi\_device\_id in the config.py file to the number of the new midi port in loopmidi, and remember to set the parameter load\_sound to False, so that Ideal Piano will not load the sound source you set, and will only play the sound source in the host when you play it. so that Ideal Piano will not load the sources it has set up, and will only play the sources from the host when playing.

For some sources, even if the midi output port is set to the same loopmidi as the host, the solution is to use the midi out plugin, set the port to the same midi output port as the host, then set the input port of the source to the midi out port, and select the midi out channel to play when you play to receive the data. (Another important point is that

(There is also a very important point is that you must first import the source, and then import the midi out plug-in, and then set the port, every time you change the new source to this order, otherwise the data still can not pass loopmidi)

#### Play the project in the DAW

With loopmidi you can also play the project in the DAW and at the same time Ideal Piano can demonstrate the current notes and chords, you just need to set the midi out port of the DAW and the midi out port of the source to the same number, which corresponds to the new midi port you created in loopmidi.

For example, if loopmidi creates a new midi port called midi port A, then in the midi settings of the DAW, set the port corresponding to midi port A to 0, then set the midi output port of the audio source to 0 as well, and then set the midi\_device\_id in the configuration file of Ideal Piano to the number corresponding to midi port A.

Save the settings file after each change (or just open change\_settings.exe to search for parameters to modify more easily), then reopen Ideal Piano.exe. Then click the midi keyboard button to enter midi keyboard mode, at this time, play the track with the midi output port set in the sequencer host. When you play the track with the midi output port, you can see that Ideal Piano also follows the same notes in real time.

For some sources that are set up with midi out but still can't pass data to loopmidi, the solution is also to use midi out as a relay station, but this is slightly different from playing with a midi keyboard.

When playing with a midi keyboard, you can select the midi out track to play, and the sound will come from the source paired with the midi port, and Ideal Piano can also receive the midi signal, but if you don't use the midi keyboard and play the arrangement project directly in the arrangement host, you can't transfer the data to loopmidi even if you select the midi out track to

play. I found a solution to this problem by copying the pairing and playing the track.

The solution I found was to copy the notes from the track of the source paired with the midi port to the piano window of midi out, then mute the track of that source and let midi out play only, then I could hear the sound of the track of the source when it was not muted before, and I could also transfer data to loopmidi, so Ideal Piano could also can receive the midi signal in real time.

## Is there a compatible version for Linux and macOS?

Currently there is a Linux compatible version, the macOS compatible version is under development. After testing on the virtual machine, it seems that macOS has a lot of compatibility issues with pygame, tkinter and pyglet, which makes it likely that Ideal Piano will not work properly.

#### Linux

You can download the Linux compatible version from the release page, which contains the Linux executable for Ideal Piano.

Install fluidsynth, the synthesizer necessary to use SoundFont files as sound sources in Ideal Piano. (The Windows version already comes with compiled binaries for fluidsynth, so you don't need to install it.) You can refer to here to learn how to install fluidsynth.

If you are using Ubuntu, run

```
sudo apt-get install fluidsynth
```

To use Ideal Piano's Linux executable, you need to open terminal in the executable's directory and run

```
sudo ". /Ideal Piano"
```

to open the software and use it.

Or you can install python and all the libraries you need to use Ideal Piano.

First install python (>= 3.7), preferably 32-bit, and run it in terminal

```
pip install pygame pyglet==1.5.11 keyboard mido midiutil py pydub numpy
```

Then copy and paste the Ideal Piano start program.pyw from the packages folder into the main folder.

Open terminal, cd to the path of the main folder, for example, if you have python 3.7 installed, run

```
sudo python3.7 "Ideal Piano start program.pyw"
```

and you will be able to open the software and use it.

## What do I need to pay attention to when loading audio files as sound source?

You can set the path of the sound source when you play the piano, the parameter is sound\_path, and the format of the sound file should be unified, the parameter of the sound file format is sound\_format (such as wav, mp3, ogg, etc.). Note that the parameters here are limited to audio files as sound sources.

#### How to load SoundFont files as sound source?

To load a SoundFont file as a source for playing MIDI files, please set use\_soundfont to True and play\_as\_midi to True in the settings file, and set the path to the SoundFont file via sf2\_path.

Please set play\_use\_soundfont in the setup file to True, and you can customize the instruments in the SoundFont file as well as the duration of the notes played, the volume, etc. with a series of parameters such as bank, preset, etc. etc.

Use Alt + s to open the Modify page, and Alt + R to reload the modified parameters (when the Set button is the default Alt). If you click the save button on the page where you modified the settings or press Ctrl + s to save the settings, the settings will be automatically reloaded after the page where you modified the settings is closed.

If you are playing with SoundFont, you can use key combinations to change the preset number and bank number to change the instrument while playing (when setting the key to the default Alt):

Alt + 1 (previous preset)

Alt + 2 (next preset)

Alt + 3 (previous bank)

Alt + 4 (next bank)

# I have encountered other problems or have suggestions for improvement

If you have encountered any problems and need help or have any feedback, please email me at <u>2180502841@qq.com</u> or add my qq number 2180502841 to talk to me, thanks for your support~