

Hey everyone! This guide is intended to teach you how to work with programs to create a loopable WAV file for SCD conversion!

- What is a WAV file? It's like an MP3 file, but just with a different extension.
- What is an SCD file? An SCD file is used with Num's Music Rando for PC version of rando.
- Don't understand? That's fine, you kind of don't need to! Just follow the steps below and you should be golden.

If for whatever reason you are having issues understanding the guide, please do not message me, please inquire in the #help channel in the KH2FM randomizer discord first. If you have feedback to provide, I'm all ears!

You'll need the following programs:

- **Audacity**
<https://www.audacityteam.org/>
A free software that allows you to edit music. You may be able to use Wavepad or another audio software, but the guide will not be able to assist you with such. Any version of Audacity should work (currently 3.2.5 works for me).
- **MusicEncoder**
<https://drive.google.com/file/d/1dGOCFftZ3u88uPp-o-6A2k4gKzHaS7kP/view?usp=sharing>

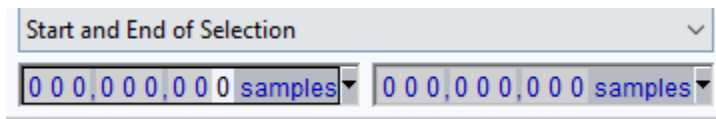
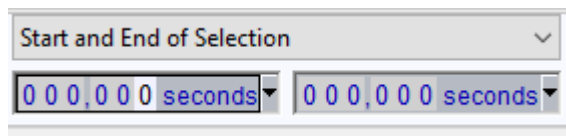
This is what you will use to convert your WAV files into SCD files. Lately there have been reports of the above link being blocked, I'm not sure how to bypass the share. I've requested Google to review it to ensure it is not marked as harmful. *4/14/25 Note, I have requested a 2nd review and have not heard back. You can just DM me (Bulcon) in the KH2Rando Discord and I can upload the Zip in messages until this is fixed.

This program is optional, it will allow you to listen to the song once it becomes an SCD file. I personally do not use this program so it's use will not be included in the guide:

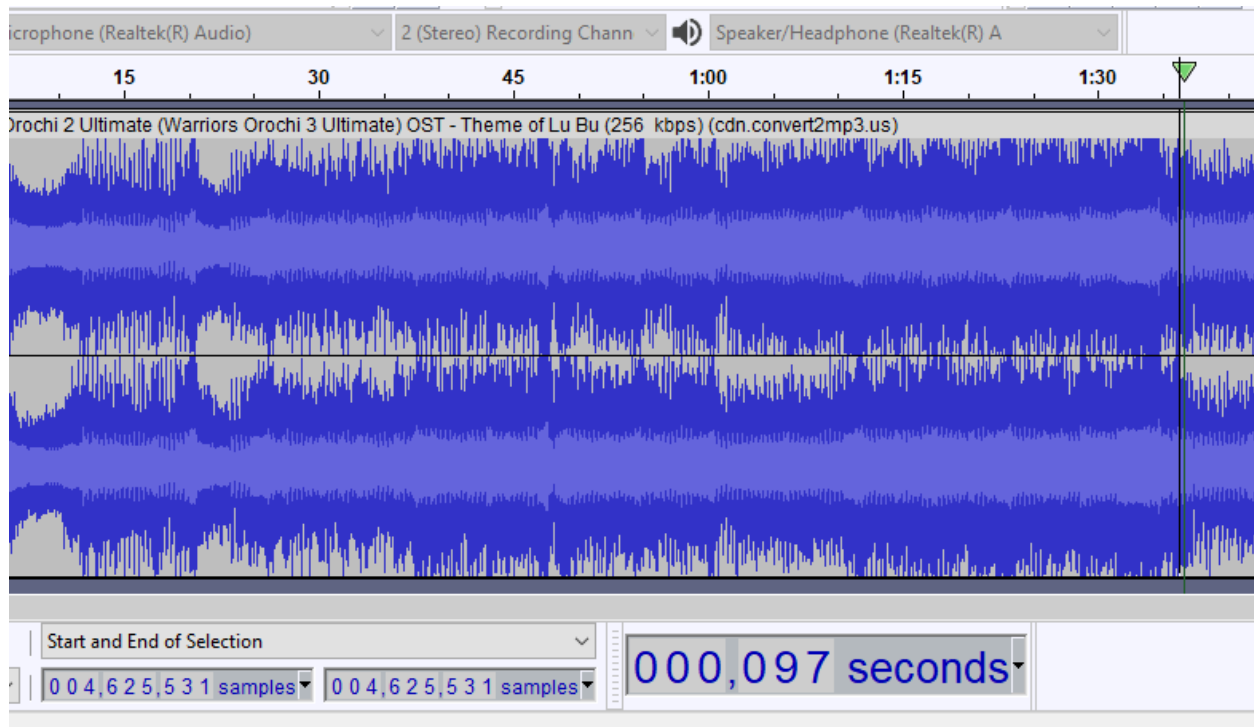
- Foobar2000 and the vgststream extension that allows playback of .scd files:
 - <https://www.foobar2000.org/download>
 - https://www.foobar2000.org/components/view/foo_input_vgmstream

PART ONE: MAKING A WAV FILE WITH LOOP POINTS

1. Once you have Audacity installed, open up the program and go to File > Open...
2. Pick the song you want to use, recommended to use either an MP3 or WAV file.
3. Towards the bottom of the program, you'll see that it's being measured in seconds, you'll want to change that to "samples"

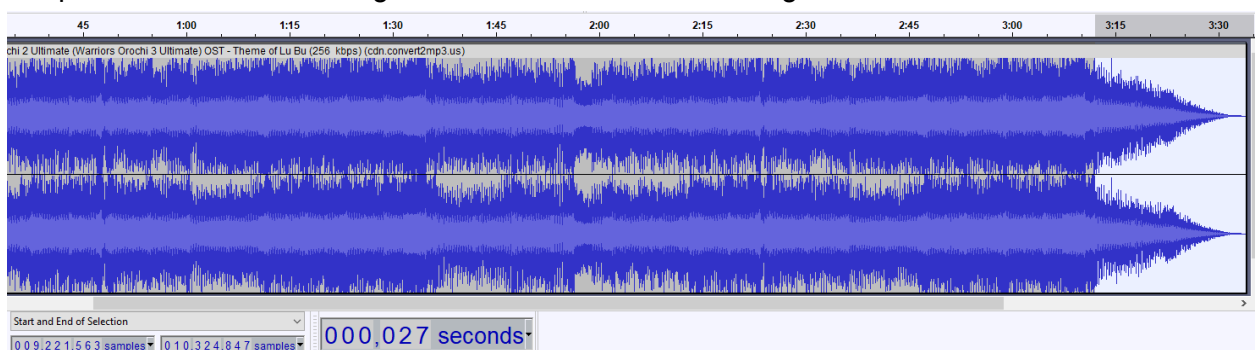


4. This is the tricky part, and you'll want to go with your best judgment. You want to find the part of the song where it starts to loop. For my example I used Lu Bu's theme from Orochi 3. The song starts its natural loop at about 97 seconds, and the samples is 004625531.



If you click on the white space above the blue lines, that will begin playing the song at that point. If you hit the right point, hit the spacebar to pause the song. Then click on the blue lines below wherever you stopped the song, this will update your sample. Write the sample number down somewhere, you'll need it later.

- Do the same thing to get the end of the loop samples. My example is 192 seconds, and 009221563 samples. Write down the samples for the end loop as well! Now, while the cursor is on the end sample, hit Shift + K, this will select everything from the end loop sample to the end of the song. Delete this section of the song.



- (Optional) If you wish to test how the loop sounds, manually type in the starting sample under the "Start and End of Selection" area. Then hit play and make sure you hit the Loop On/Off button next to record. If you are using an older Audacity, pressing Shift+Space may work for looping.

Start and End of Selection

004,625,531 samples 009,221,563 samples

7. Go to File > Export > Export as Wav
8. Make sure it is all saved as one word, I'm just going to name it LuBu3 for example.

File name: Save

Save as type: WAV (Microsoft) Cancel

9. An "Edit Metadata Tags" screen will popup. Under tags, make LoopStart and LoopEnd, you'll need to click into the empty tag part to type it in (you'll have to hit add to add another tag for LoopEnd). Under value, put your samples **without the zeros at the front**.

Edit Metadata Tags

Use arrow keys (or ENTER key after editing) to navigate fields.

Tag	Value
Album Title	Warriors Orochi 3
Track Number	
Year	
Genre	
Comments	
Software	Lavf58.29.100
LoopStart	4625531
LoopEnd	9221563

Add Remove Clear

Genres: Edit... Reset...

Template: Load... Save... Set Default

☐ Don't show this when exporting audio

OK Cancel ?

10. Hit okay, and congratulations, you've made your first WAV loop file!

PART TWO: CONVERTING YOUR WAV TO SCD

1. Grab the MusicEncoder.rar you got from the GoogleDrive link. You can extract it wherever.
2. Place your WAV file into the folder, like such:



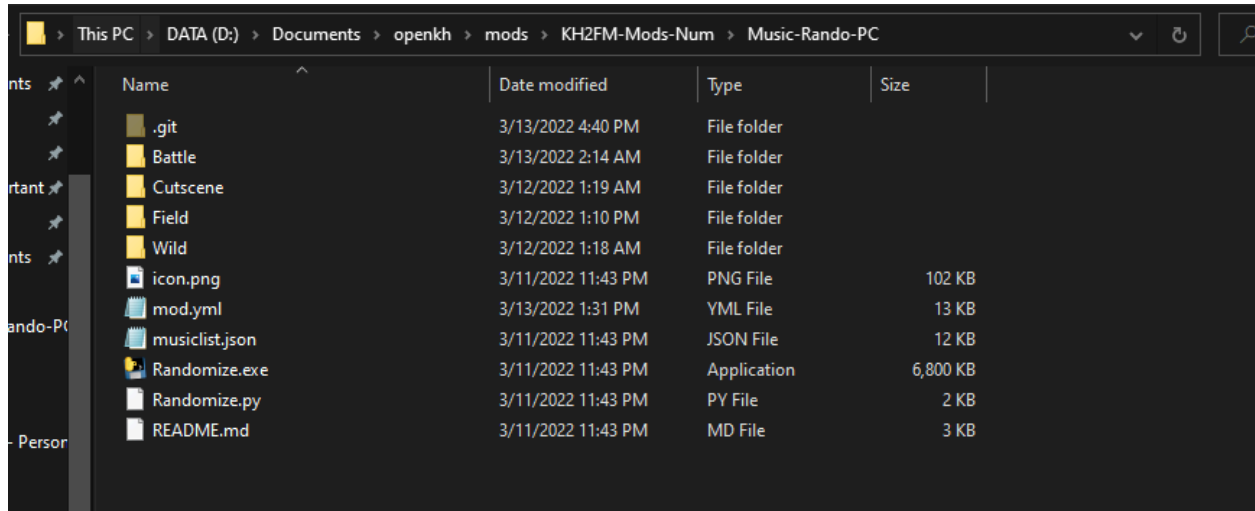
3. Click on mass_convert.bat and it will run a CMD prompt. You don't need to do anything with it, it will run on its own. You'll know it's done when it says "Press any key to continue...". You do not have to convert one WAV file at a time, you can place multiple WAV files at once into the folder and have the mass_convert.bat convert them all!
4. Go to the "output" folder, and in there will be your SCD file

PART THREE: USING SCDs WITH NUM'S MUSIC RANDO

Checkout Num's Github for instructions on how to work with their mod!

<https://github.com/KH2FM-Mods-Num/Music-Rando-PC>

Below is a screenshot of how your mod folder should look like after setting it up!



Also, check out Sonic's spreadsheet of SCD song packs! It has Kingdom Hearts, Final Fantasy, Sonic the Hedgehog, and much more prepared SCDs! Have fun!

https://docs.google.com/spreadsheets/d/1-NfkF8lt6kt6P2ZlppO1FLzLqZye3RMaOJU79_BbAuo/edit#gid=1689200989

(OPTIONAL) PART FOUR: CREATING A MUSIC PLANDO

Do you want to just replace the exact songs in KH2FM with specific ones instead of having them randomized? You can do so by editing the mod.yml file in Num's Music Rando. First, you may want to run Randomize.exe to ensure the yml generates properly. This yml file can be opened using Notepad and can be found in *openkh > mods > KH2FM-Mods-Num > Music-Rando-PC*.

```
- name: bgm\music112.win32.scd #Fields of HOnor
  method: copy
  source:
    - name: battle\LuBu.scd
```

The above example is the battle theme for Land of Dragons. You only need to pay attention to two lines when editing the yml, the top and bottom one. The top line tells you what song you are editing. The bottom line tells you what SCD is set to replace it when building in OpenKHModManger.

The bottom line might have originally read as “- name: battle\FieldsofHonor.scd”. You’d want to replace the “FieldsofHonor.scd” to “LuBu.scd”. Notice the “battle\” before the SCD name, this means that the yml will be pulling from the “Battle” folder, make sure the SCD you want to use is in there.

Save the yml, and when you Build and Patch the game, you will hear Lu Bu's theme when fighting instead of a random song pulled from the "Battle" folder. Just make sure you don't use the Randomize.exe after you have edited the yml.

(OPTIONAL) PART FIVE: CREATING A MUSIC PLANDO-RANDO

Want to go even further beyond with your plando? Want to make it so that TT is always randomized, but so that it is specifically The World Ends With You music? Well with Num's most up to date mod you can now do so! We will use TT as an example. Go into the musiclist.json file (you can open it with notepad) and search for The Afternoon Streets. When you find it, it will look like this:

```
{
    "filename": "bgm\\music052.win32.scd",
    "type": "field",
    "title": "The Afternoon Streets"
},
```

On the line "type:", you want to replace "field" with "TT". You will want to do so with the song below it, Working Together. Make sure to save the musiclist.json when done editing.

```
{
    "filename": "bgm\\music053.win32.scd",
    "type": "TT",
    "title": "Working Together"
},
```

Next you'll make a folder for TT in your Music-Rando-PC folder where you made Battle/Field/Cutscene/Wild. Place your The World Ends With You SCDs in that folder. When you run the randomize.exe, it will replace The Afternoon Streets and Working Together with SCDs only from the TT folder. You can create a sort of "plando-rando" by doing this. For example, my setup is having specific music for some worlds, bosses, mid-bosses, Sephiroth, Dearly Beloved, COR and much more. See below for example.

 .git	4/26/2022 8:11 PM	File folder	
 AX2	4/21/2022 7:56 PM	File folder	
 Battle	4/21/2022 11:34 PM	File folder	
 Boss	4/21/2022 7:53 PM	File folder	
 COR	4/21/2022 7:55 PM	File folder	
 Cutscene	4/3/2022 12:20 PM	File folder	
 DBEnd	4/21/2022 6:15 PM	File folder	
 DBStart	4/21/2022 6:15 PM	File folder	
 Disappear	4/21/2022 7:58 PM	File folder	
 Field	4/3/2022 7:55 PM	File folder	
 Fightdeath	4/21/2022 8:01 PM	File folder	
 Fragments	4/21/2022 6:23 PM	File folder	
 FX	4/21/2022 8:00 PM	File folder	
 LOD	4/9/2022 1:09 PM	File folder	
 Metal	4/21/2022 8:00 PM	File folder	
 MidBoss	4/21/2022 7:52 PM	File folder	
 PR	4/3/2022 12:41 PM	File folder	
 Reflection	4/21/2022 7:59 PM	File folder	
 Sephiroth	4/3/2022 11:36 AM	File folder	
 Terra	4/3/2022 12:04 PM	File folder	
 TT	4/3/2022 8:02 PM	File folder	
 TWTNW	4/21/2022 6:11 PM	File folder	
 Urns	4/3/2022 11:36 AM	File folder	
 Wild	3/12/2022 1:18 AM	File folder	
 icon.png	3/11/2022 11:43 PM	PNG File	102 KB
 mod.yml	4/26/2022 8:11 PM	YML File	7 KB
 musiclist.json	4/21/2022 8:02 PM	JSON File	12 KB
 Randomize.exe	3/31/2022 7:14 PM	Application	6,800 KB
 Randomize.py	3/31/2022 7:14 PM	PY File	2 KB
 README.md	3/31/2022 7:14 PM	MD File	4 KB

Luas to go with Music-Rando-PC

In the KH2FM Rando discord, inside of #lua-scripts, you can find luas made by Num that make it so only a “Battle” or “Field” theme plays in a world. For example, if you want to only hear whatever replaces Sacred Moon in TWNTW, then you’ll want the “Field_Theme_Only.lua” inside your scripts folder. These luas will not replace any boss themes. Battle_Theme_Only.lua will only affect worlds with battle themes. For example, 100 Acre would not be affected by the lua.

Some Extra Notes

If your music's too quiet in game, try amplifying your WAV file in Audacity. You can do so by going to:

- Select > All or Ctrl+A
- Then Effect > Amplify...
- Adjust as needed and save. You’ll need to reconvert the WAV into a SCD and replace it in Num’s Music Rando.

Credits

Thank you to Num for the Music-Rando-PC mod!

Thank you to Sonicshadowsilver2 for their SCD song packs and giving me the idea to make the music changes into a plando!

Thank you to Zed for teaching me how to work with Audacity and SCDs!

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