TUTORIAL : How to read and edit game assets ?

(yes it's a pdf)

Hey, it's Gigafraud ! Here, I'll explain how you can look inside the game's data and modify it yourself !

First, you're going to need at least one piece of software. It is called AssetBundleExtractor, here is the github link : https://github.com/SeriousCache/UABE

If you only want to look at files inside the game, you can also use AssetStudio. With this one, you can directly read text files and look at images, but you can't edit anything (at least from what I know. Maybe there's a way) : https://github.com/Perfare/AssetStudio

(!!! These works on Windows !!! For other OSs, I don't really know if there are alternatives or not.)

Now, all you need is the game you want to look at ! These pieces of software are supposed to work for any Unity game. But in our case, we already know which games : we'll be looking at Hifuu Bouenkyou, but this tutorial works with the two other games as well. These games can be found in https://moriyashrine.org.
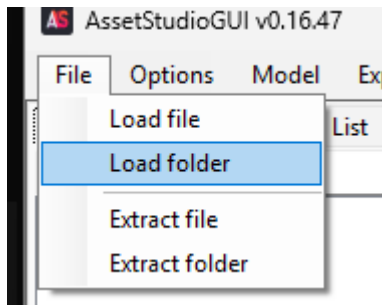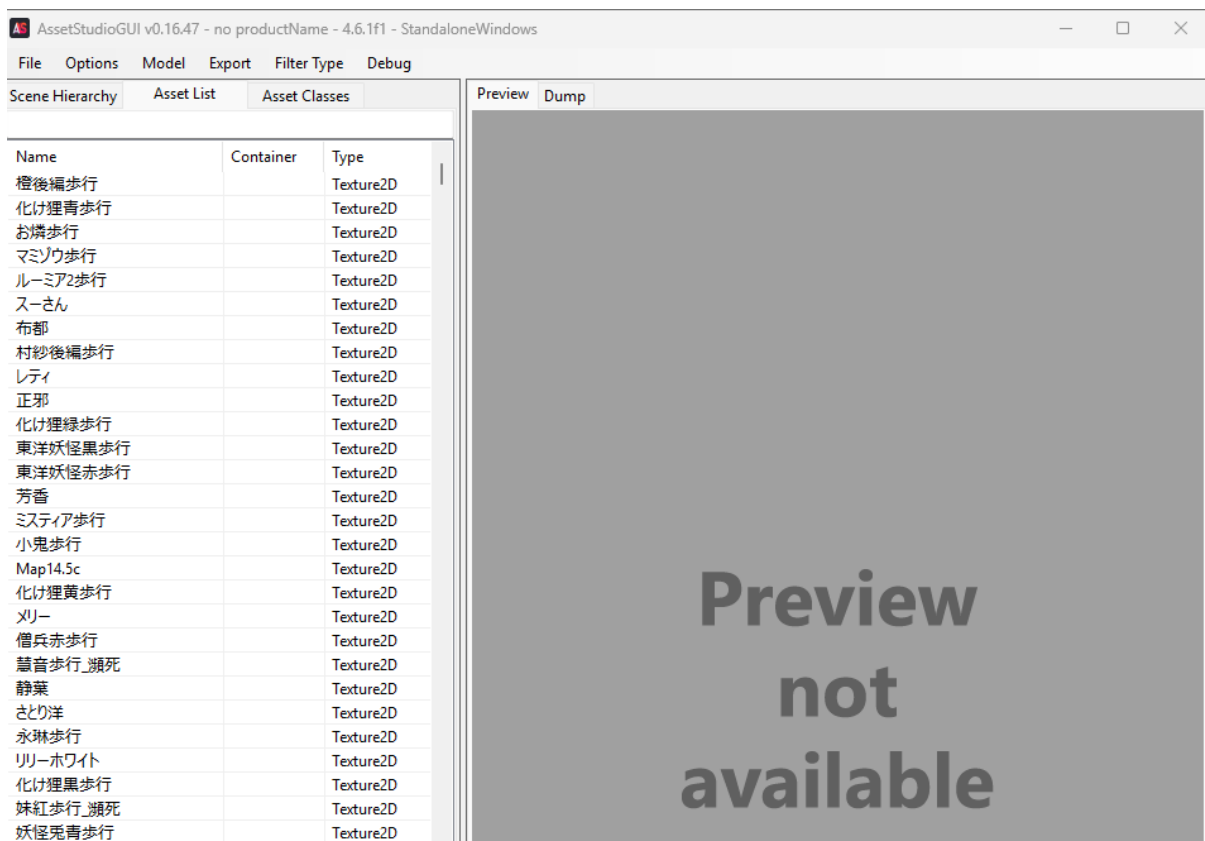
So let's go !

If you only want to read the assets, use AssetStudio. It should look like this :
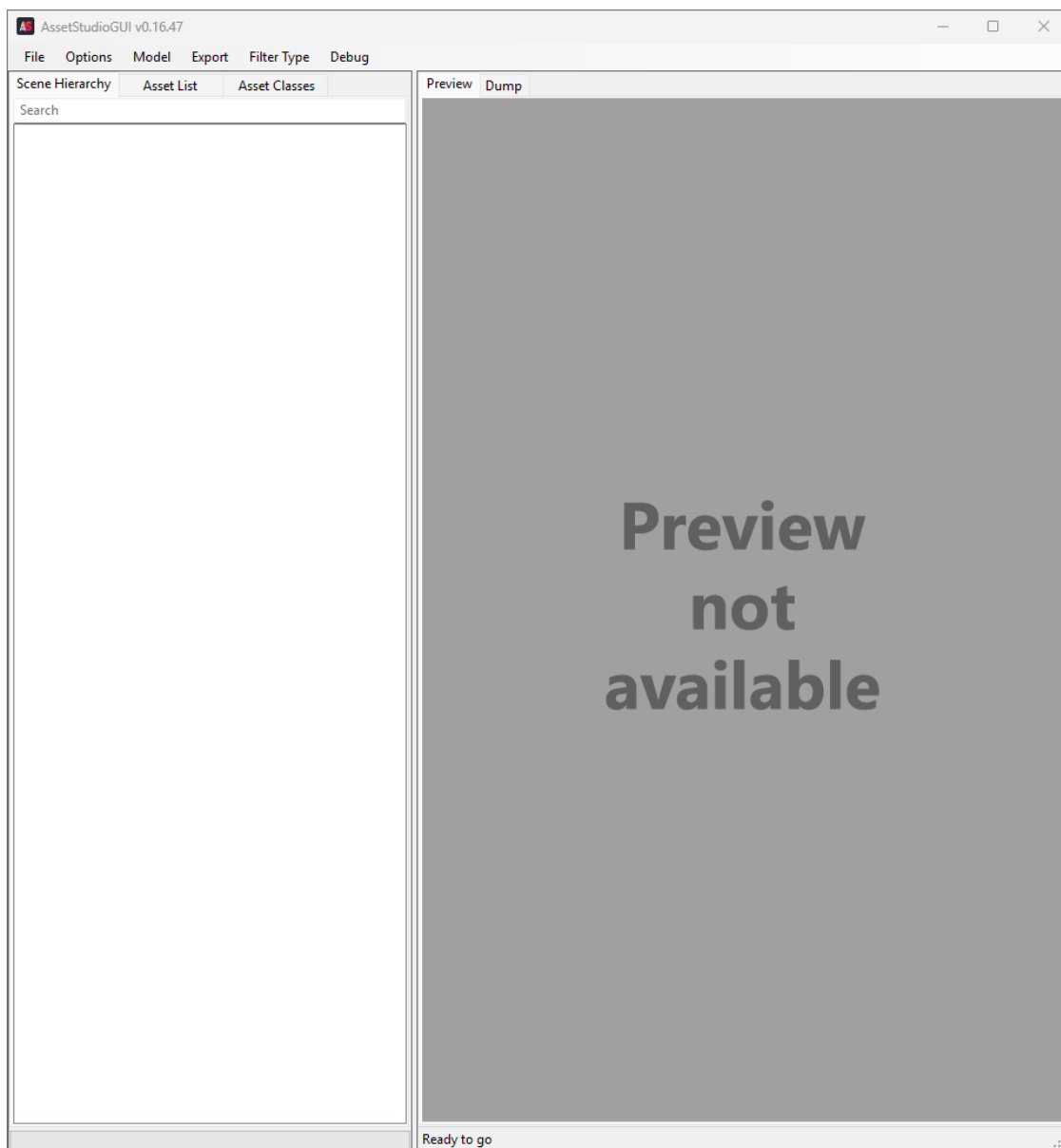
The easiest way to load everything is to go to File/load Folder

Simply select the game directory. Finally, click on Asset List. If everything is fine, it should show you all the assets in the left part.

You can sort all the assets by name or container, that should help you.

The Texture2D files are pictures, and should be shown on the right side when clicked on.

Name	Container	Type
橙後編歩行		Texture2D
化け狸青歩行		Texture2D
お燐歩行		Texture2D
マミゾウ歩行		Texture2D
ルーミア2歩行		Texture2D
スーさん		Texture2D
布都		Texture2D
村紗後編歩行		Texture2D
レティ		Texture2D
正邪		Texture2D
化け狸緑歩行		Texture2D
東洋妖怪黒歩行		Texture2D
東洋妖怪赤歩行		Texture2D
芳香		Texture2D
ミスティア歩行		Texture2D
小鬼歩行		Texture2D
Map14.5c		Texture2D
化け狸黄歩行		Texture2D
メリー		Texture2D
僧兵赤歩行		Texture2D
慧音歩行_瀕死		Texture2D
静葉		Texture2D
さとり洋		Texture2D
永琳歩行		Texture2D
リリーホワイト		Texture2D
化け狸黒歩行		Texture2D
妹紅歩行_瀕死		Texture2D
妖怪兎青歩行		Texture2D

For example, here's a Tanuki's overworld sprite. Pretty cool.

(Just so you're warned, the "damaged" sprites for the characters are a little revealing…)

You can also look at text files. They are under the type : TextAsset. There are also audio files, that you can listen to. It really feels like looking through the game's code ! (Which is exactly what you're doing, I guess…).

What if you want to edit the files ? Well then, you'll need AssetBundleExtractor. At least, this is the way I found to do it (through trial-and-error, and a lot of googling). There is maybe another way to do it, but I found this one first so I stuck with it.
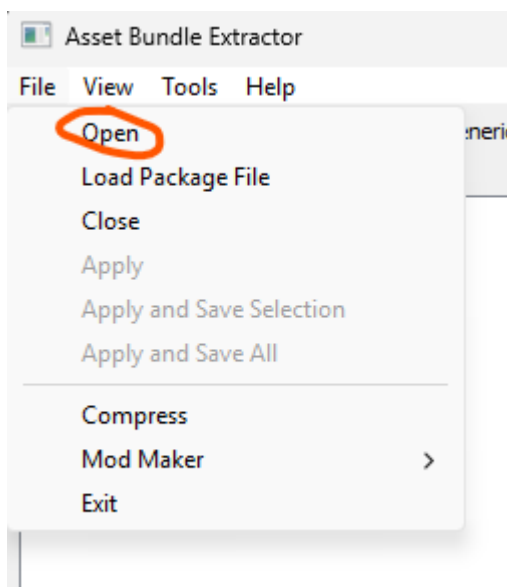
Let's open AssetBundleExtractor.
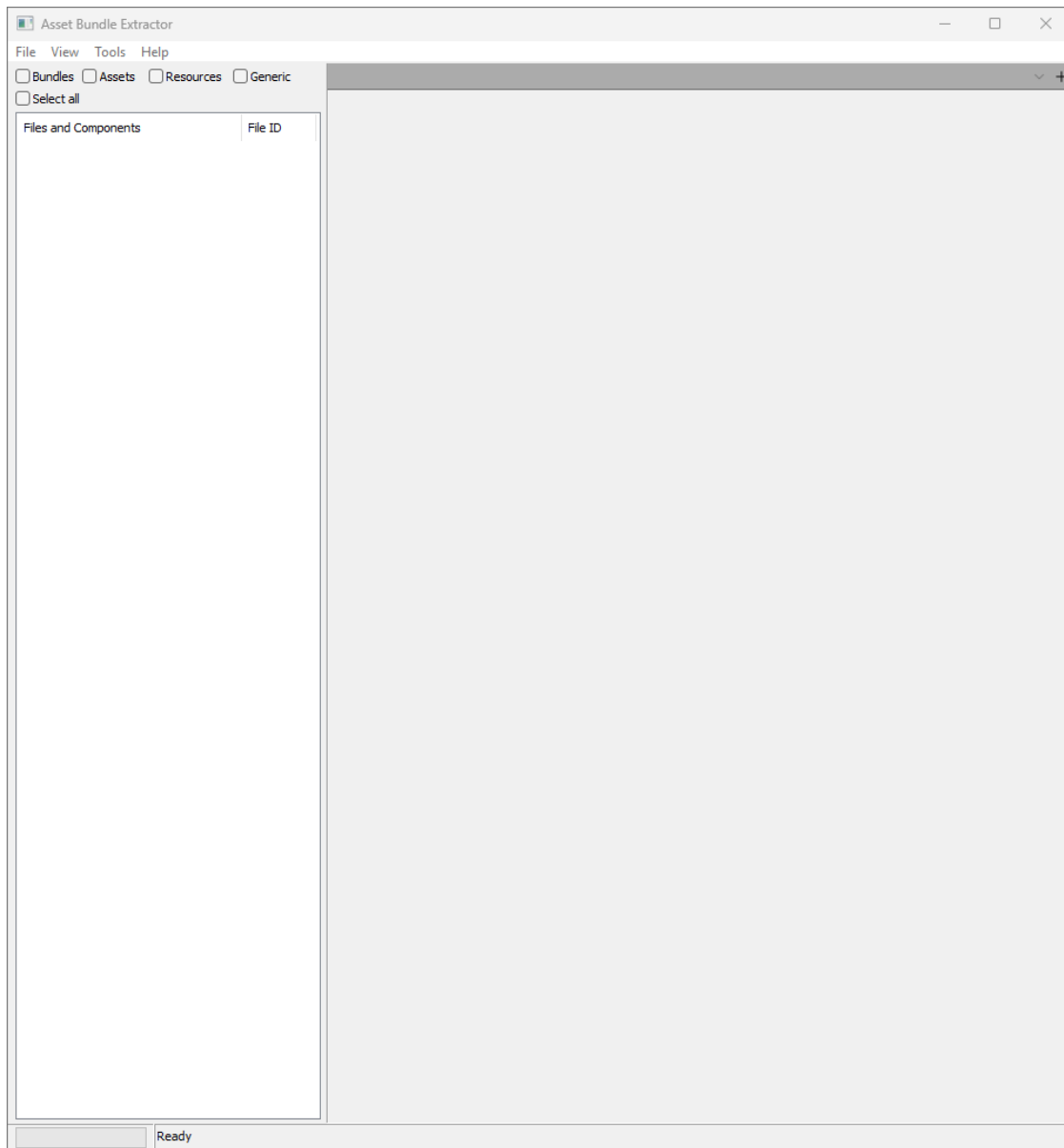
Here's what AssetBundleExtractor looks like. At least, when nothing is loaded.

At first, it's empty. So let's load a game !

First, you'll go here (as you would expect).

Now, what do we need to load ? You'll need to find a specific file named : resources.assets. It contains pretty much every asset in the game. Its location is in the <game_name>_Data folder. Find it then load it in !

level50	12/01/2015 08:10	Fichier	44 Ko
level51	12/01/2015 08:10	Fichier	7 Ko
level52	12/01/2015 08:11	Fichier	28 Ko
level53	12/01/2015 08:11	Fichier	11 Ko
mainData	12/01/2015 08:11	Fichier	1 354 Ko
output_log.txt	24/02/2025 22:07	Fichier TXT	5 Ko
PlayerConnectionConfigFile	12/01/2015 08:11	Fichier	1 Ko
resources.assets	24/02/2025 22:06	Fichier ASSETS	1 097 085 Ko

Then, you'll see your file the left part of the window, in the "Files and Components" part. Simply click on it, and all the game assets will be on the right part of the screen. As simple as that !
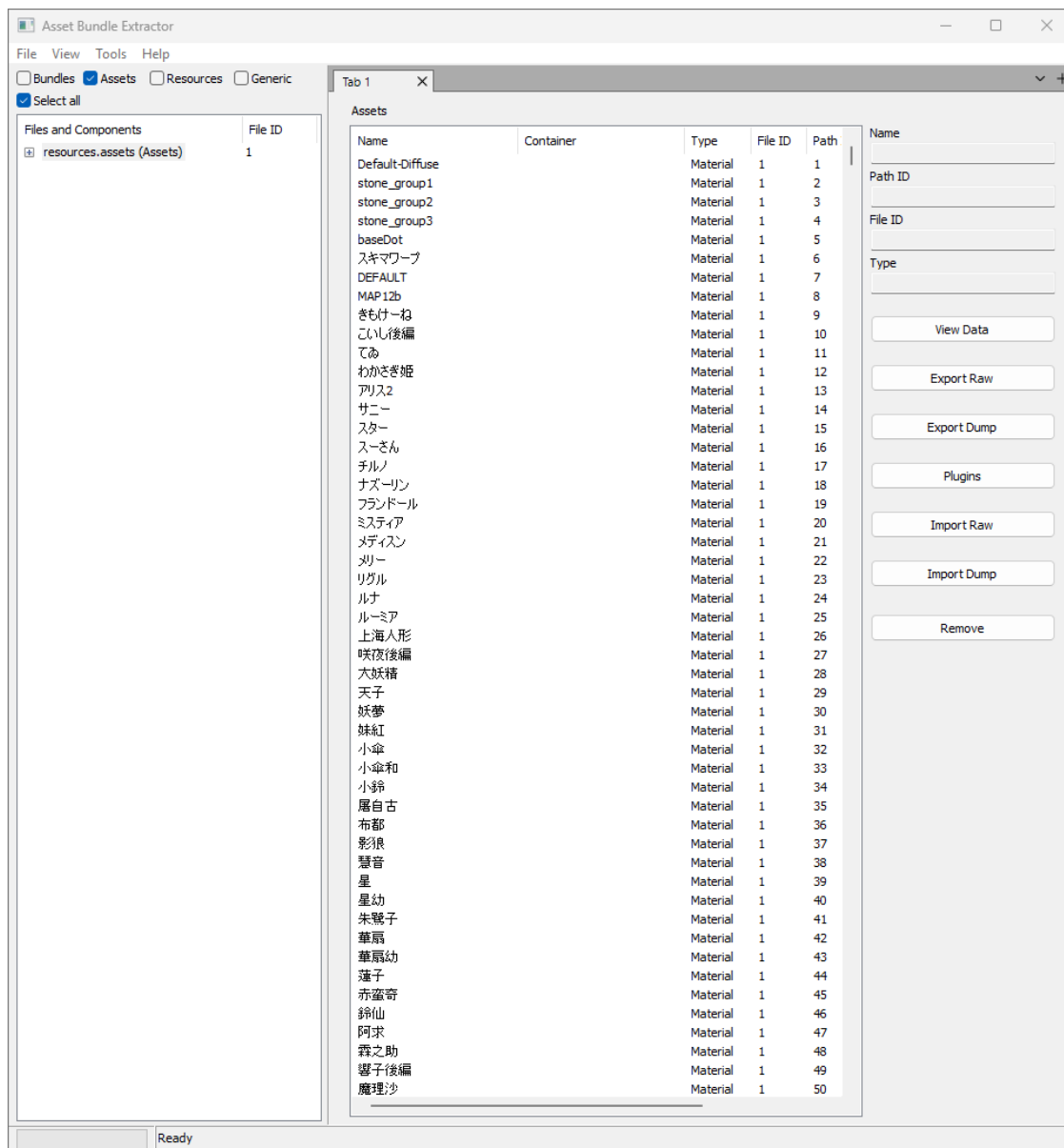
There you go !

What now ? Well, the sky is the limit ! You can scroll through all the files and look for what you need ! You can sort the assets by clicking on "Name", that's going to help you a bit.

Let's say you want to edit a stage file. First, let's find them ! Sort the assets by their name, then scroll down.
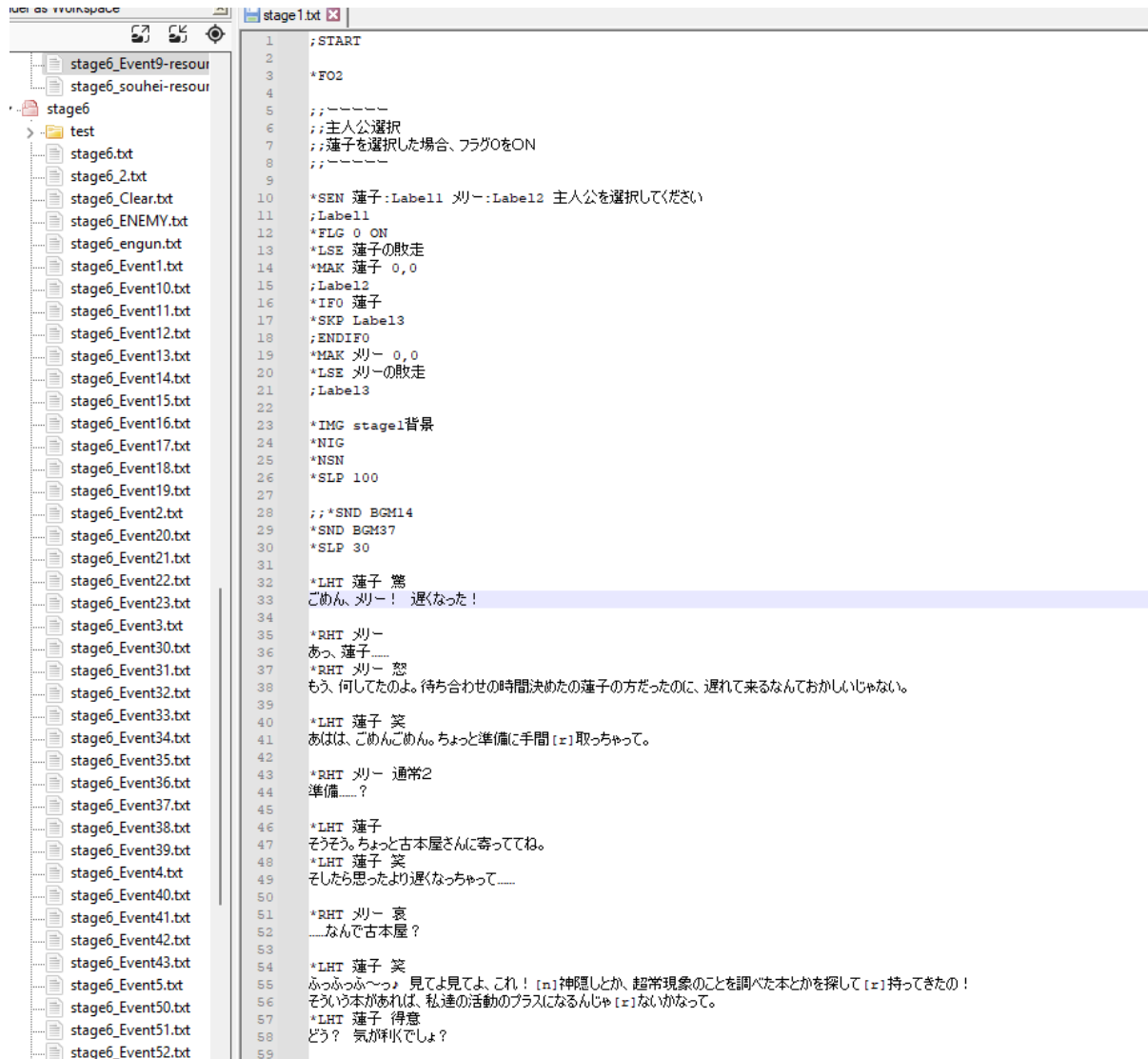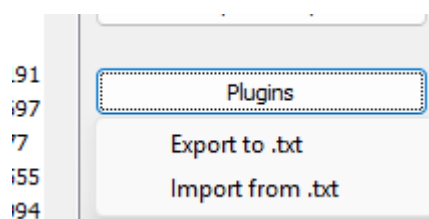

The stage1 file, for example, is the one that's loaded at the beginning of the game. It contains the intro cutscene. We'll edit this one.

First, you want to click on the plugins button on the right, then "Export to .txt". This will allow you to extract the stage and put it inside a txt file, so that you can easily edit it.

Now, open the extracted .txt file with your favourite text editor. I personally use Notepad++, because it's the one I'm the most familiar with. All of them works !

Here is our stage file. Yep, most of it is in japanese. If you want more details on how the structure of these files works, you can look at the README.md file from this Github.

To keep it simple, I'll just edit the first 2 lines.

```
 4
 5   ;;------
 6   ;;主人公選択
 7   ;;蓮子を選択した場合、フラグ0をON
 8   ;;------
 9
10   *SEN 蓮子:Label1 メリー:Label2 主人公を選択してください
11   ;Label1
12   *FLG 0 ON
13   *LSE 蓮子の敗走
14   *MAK 蓮子 0,0
15   ;Label2
16   *IF0 蓮子
17   *SKP Label3
18   ;ENDIF0
19   *MAK メリー 0,0
20   *LSE メリーの敗走
21   ;Label3
22
23   *IMG stage1背景
24   *NIG
25   *NSN
26   *SLP 100
27
28   ;;*SND BGM14
29   *SND BGM37
30   *SLP 30
31
32   *LHT 蓮子 篤
33   │I'm hungry for some spaghetti...
34
35   *RHT メリー
36   │Didn't you already eat spaghetti last night ?
37   *RHT メリー 怒
38   もう、何してたのよ。待ち合わせの時間決めたの蓮子の方だったのに、遅れて来るなんておかしいじゃない。
```

Of course, if you know how there files work, you can change more than just the text. You can change the character that's speaking, the emotion on their face, the BGM,... This file basically contains all of what the game will do.
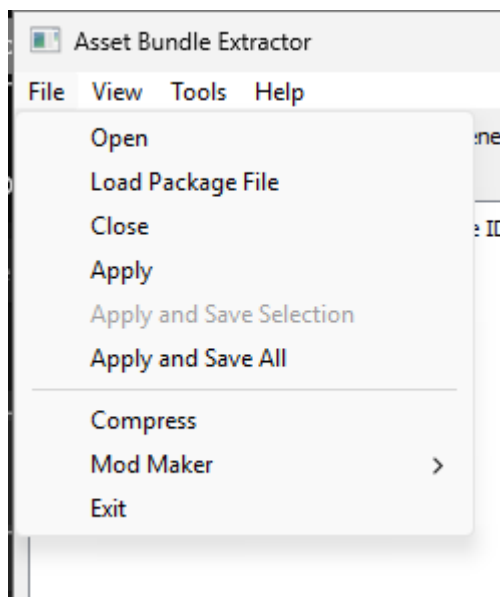
Now save that file.

Go back to AssetBundleExtractor with your resources.assets opened, select the text asset you want to edit (in our case, stage1), then go to Plugins/"Import from .txt".

Select the file you want to import (in our case, the .txt file you modified earlier).
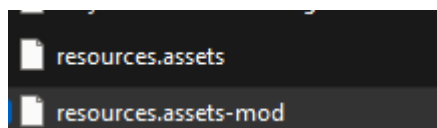

We're almost there, don't worry !

Finally, go on File/Apply and Save All.

This will ask you to select a place to save a "resources.assets-mod" file. Save it in the same place as the resources.assets file you've done.

The game is still using the non-modded one. Now, rename the "resources.assets" to something else (like resourcesBackup.assets), then rename the modded one "resources.assets". Now, the game is reading the new file.

You can find the results in-game !

And there you go !

If you edited too many things, the game might crash. So be careful. If you can't get it to work again, then just download the game again.