

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>

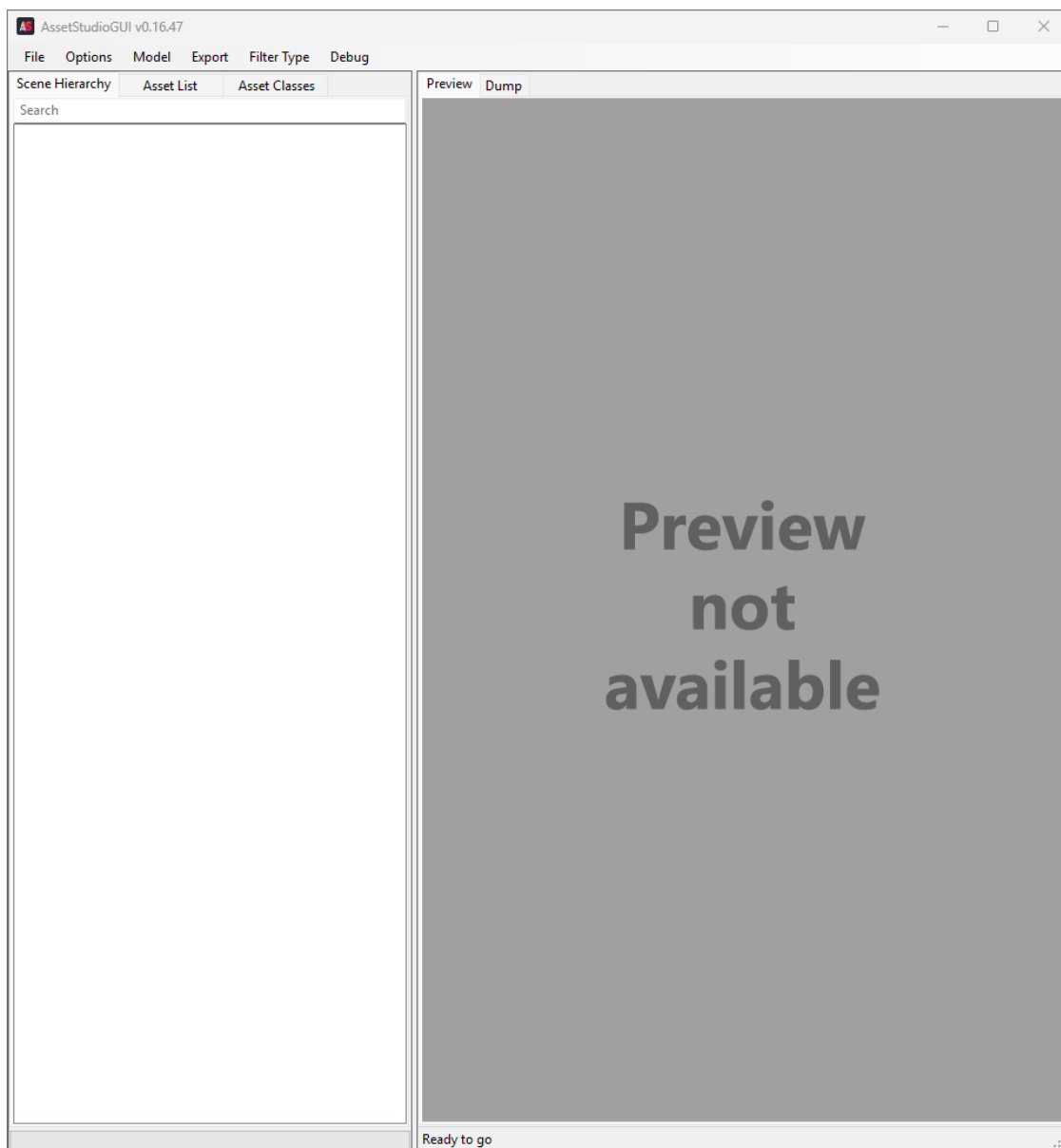
(!!! These works on Windows !!! For other OSs, I don't really know if there are alternatives or not.)

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>.

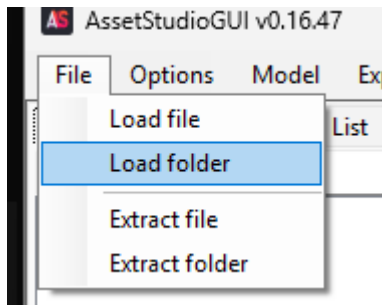


So let's go !

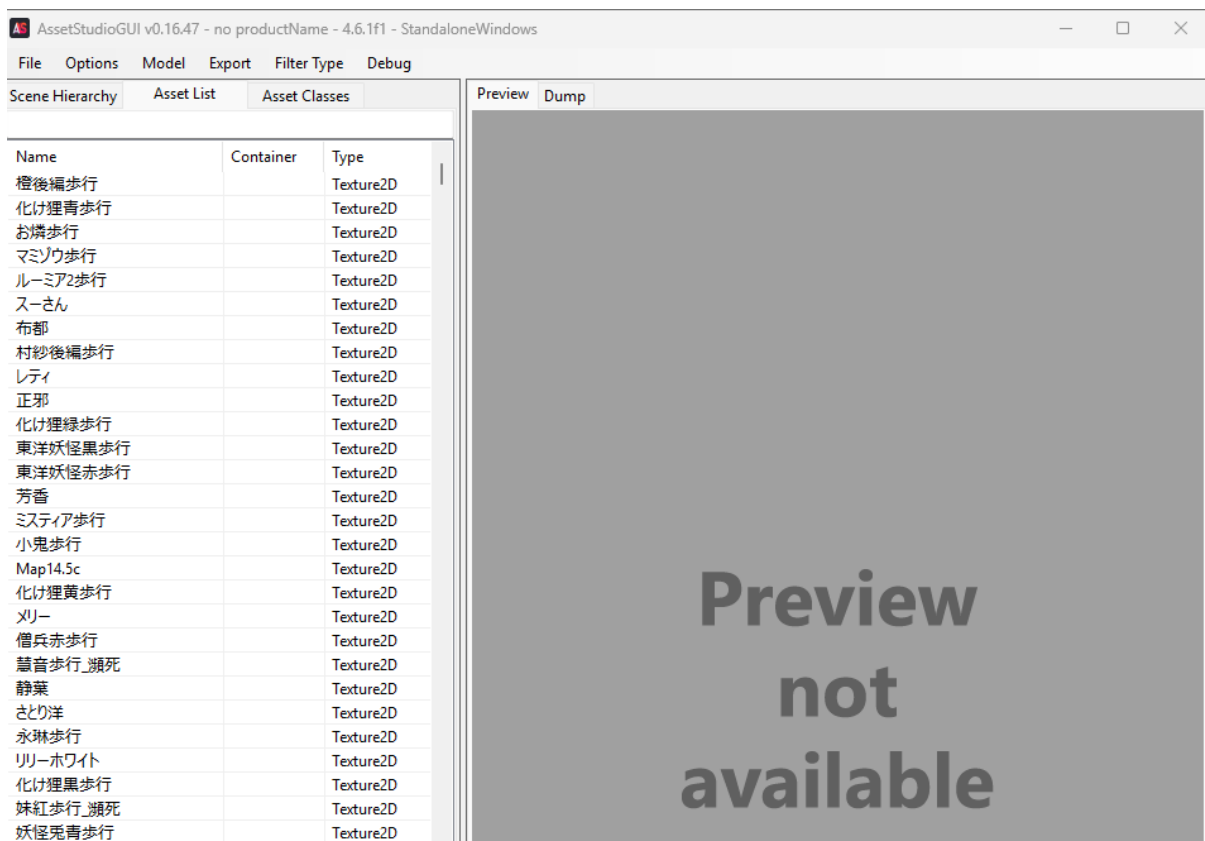
If you only want to read the assets, use AssetStudio. It should look like this :



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
燈後編歩行		Texture2D
化け狸青歩行		Texture2D
お嬢歩行		Texture2D
マミウ歩行		Texture2D
ルーミア歩行		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.

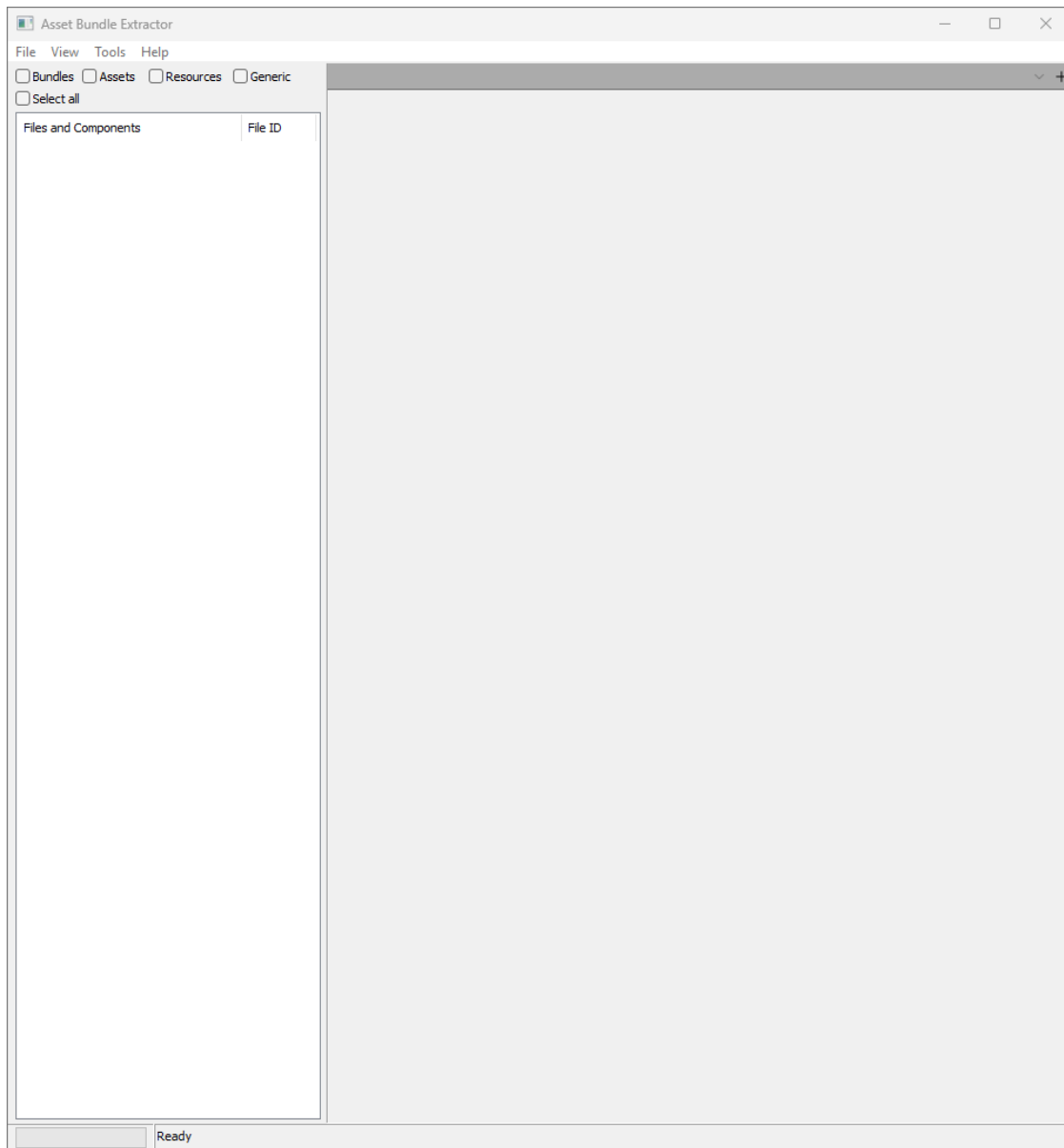
(Just so you're warned, the "damaged" sprites for the characters are a little revealing...)

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.

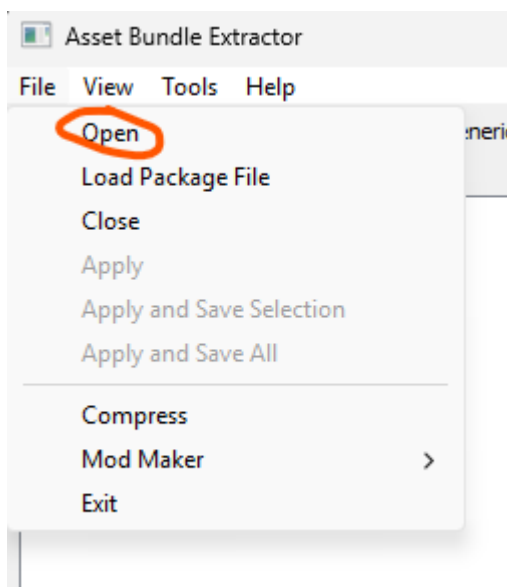


Here's what AssetBundleExtractor looks like. At least, when nothing is loaded.

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



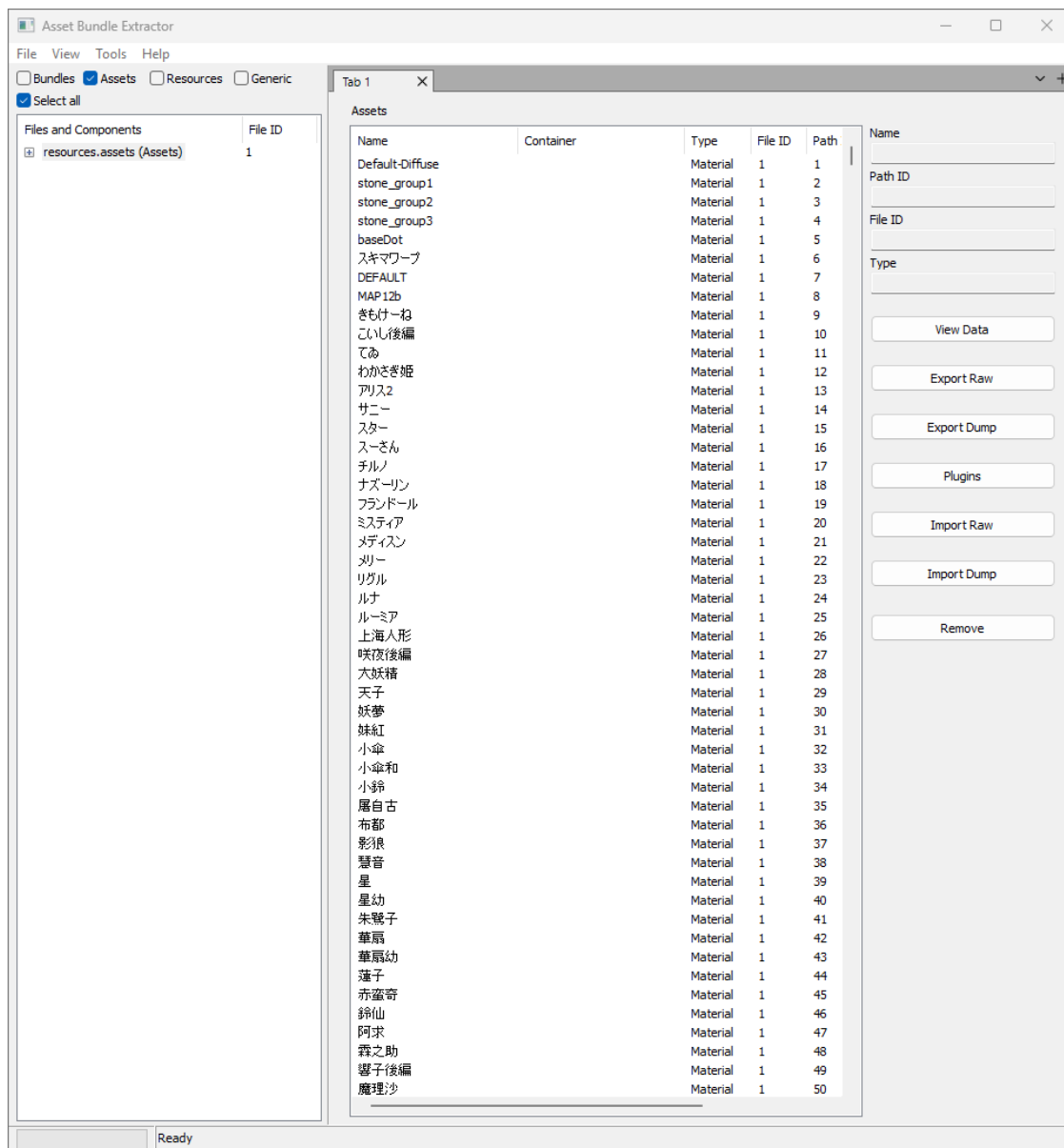
First, you'll go here (as you would expect).



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.

Assets

Name	Container	Type	File ID	Path
Unlit - Premultiplied Colored 2		Shader	1	585
Unlit - Premultiplied Colored 3		Shader	1	584
Unlit - Text		Shader	1	586
Unlit - Text 1		Shader	1	589
Unlit - Text 2		Shader	1	583
Unlit - Text 3		Shader	1	582
Unlit - Transparent Colored 1		Shader	1	592
Unlit - Transparent Colored 2		Shader	1	580
Unlit - Transparent Colored 3		Shader	1	587
Unlit - Transparent Packed		Shader	1	594
Unlit - Transparent Packed 1		Shader	1	581
Unlit - Transparent Packed 2		Shader	1	595
Unlit - Transparent Packed 3		Shader	1	593
Youkai_Tri		TextAs...	1	2899
bark2_nmp		Textur...	1	236
baseDot		Material	1	5
bee		AudioClip	1	3191
bossMusic		TextAs...	1	2697
default		Mesh	1	577
default		GameO...	1	3555
effectlist		TextAs...	1	2994
garden		AudioClip	1	3322
jingle_Death		AudioClip	1	3340
makkura		AudioClip	1	3153
member		TextAs...	1	1978
polySurface3		Mesh	1	579
polySurface3		GameO...	1	3557
polySurface4		Mesh	1	576
polySurface4		GameO...	1	3554
se		TextAs...	1	2001
se_Walk		AudioClip	1	3133
stage1		TextAs...	1	1733
stage10.5a		TextAs...	1	2028
stage10.5a_2		TextAs...	1	3081
stage10.5a_EVENT1		TextAs...	1	2691
stage10.5a_EVENT2		TextAs...	1	903
stage10.5a_EVENT20		TextAs...	1	3032

Name

stage1

Path ID

1733

File ID

1

Type

TextAsset (0x00000031)

View Data

Export Raw

Export Dump

Plugins

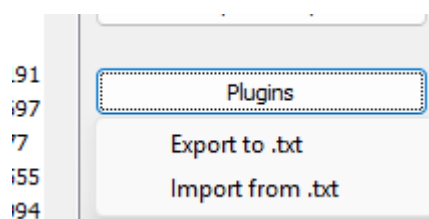
Import Raw

Import Dump

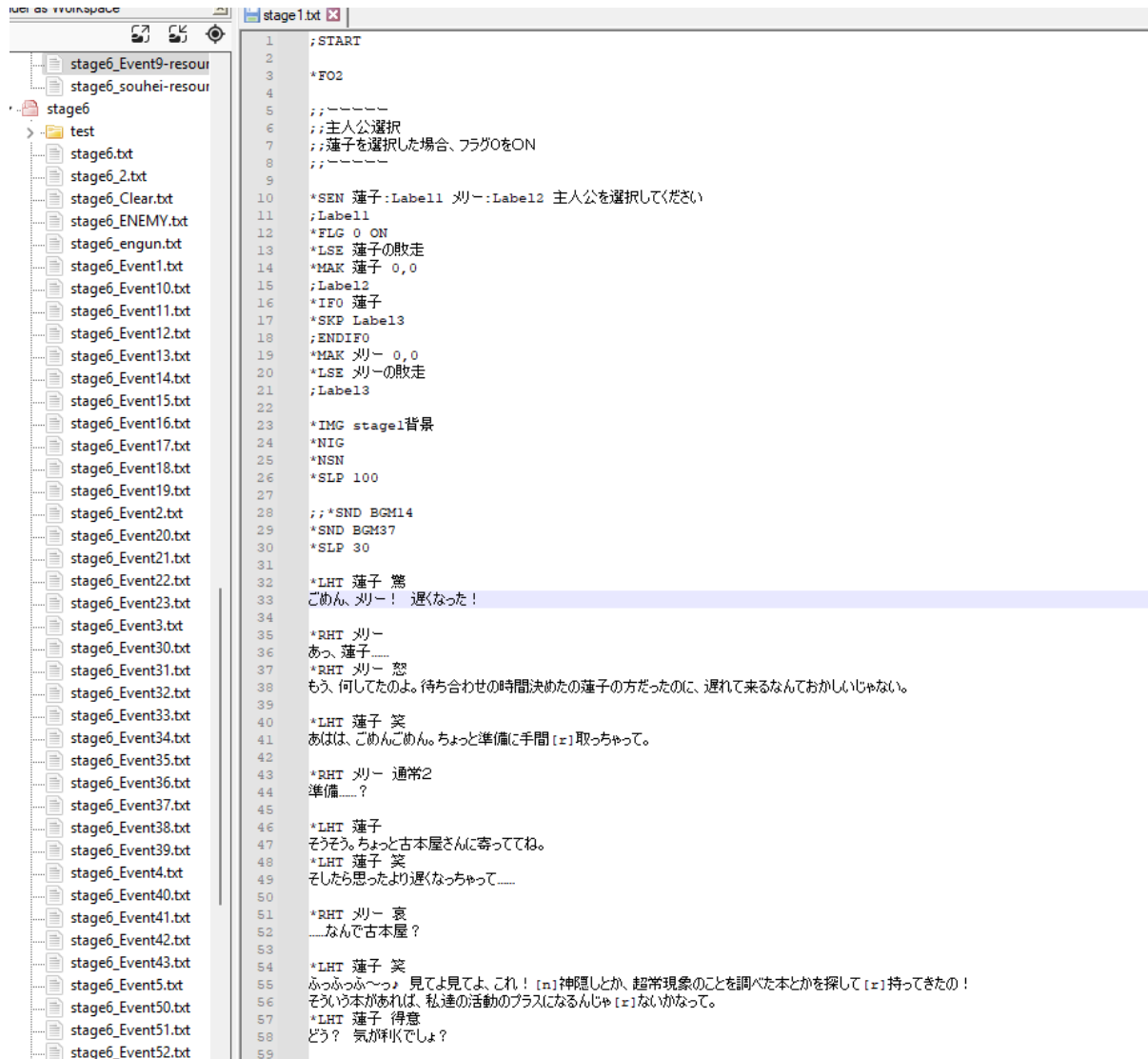
Remove

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 !



```
1 ; START
2
3 * FO2
4
5 ;; ~~~~~
6 ;; 主人公選択
7 ;; 蓮子を選択した場合、フラグを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 *IFO 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 驚
33 ごめん、メリー！ 遅くなった！
34
35 *RHT メリー
36 あっ、蓮子……
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。
39
40 *LHT 蓮子 笑
41 あはは、ごめんごめん。ちょっと準備に手間 [E] 取っちゃって。
42
43 *RHT メリー 通常2
44 準備……？
45
46 *LHT 蓮子
47 そうそう。ちょっと古本屋さんに寄っててね。
48 *LHT 蓮子 笑
49 そしたら思ったより遅くなっちゃって……
50
51 *RHT メリー 哀
52 ……なんで古本屋？
53
54 *LHT 蓮子 笑
55 ふっふっふ〜っ。見てよ見てよ、これ！ [N] 神隠しとか、超常現象のことを調べた本とかを探して [E] 持ってきたの！
56 そういう本があれば、私達の活動のプラスになるんじゃないか [E] ないかなって。
57 *LHT 蓮子 得意
58 どう？ 気が利くでしょ？
59
```

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 *IFO 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 驚
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 these 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.

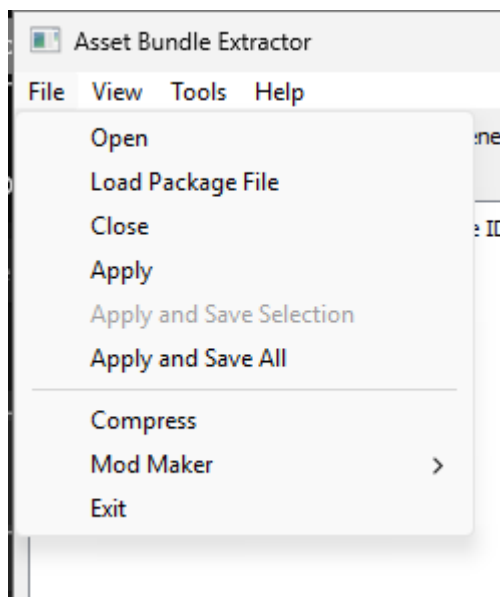
Go back to AssetBundleExtractor with your resources.assets opened, select the text asset you want to edit (in our case, stage1), then go to Plugins/"Import from .txt".

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

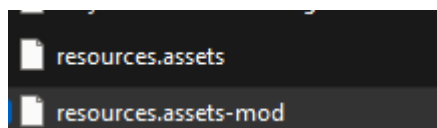


We're almost there, don't worry !

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.