

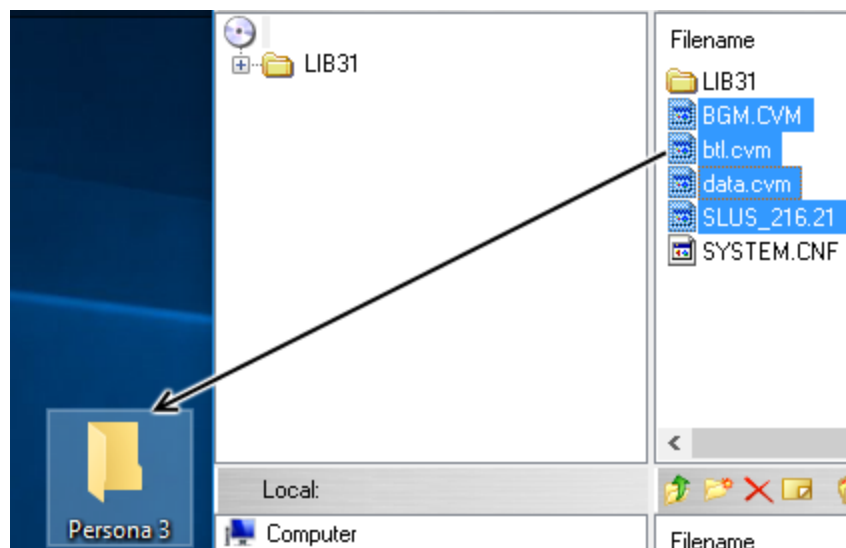
This guide is meant to be a step-by-step tutorial on modifying Persona Persona 3 and 4 ISOs (Playstation 2 version), maintained by [Ryan ShrineFox](#) to be as up to date as possible.

We will be using the NTSC versions as examples.

Prior Steps

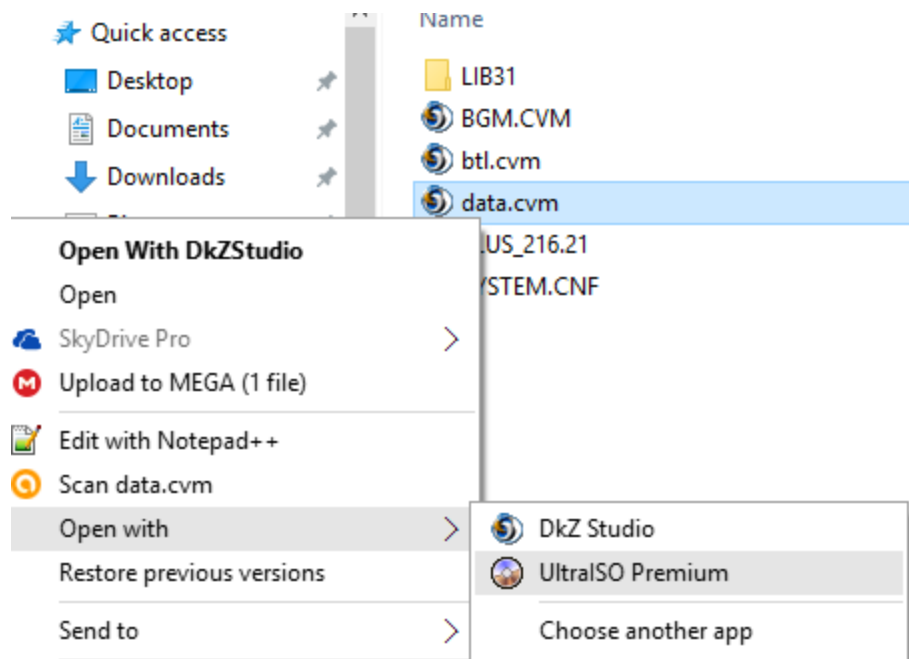
1. **First, acquire your ISO.** Obviously, you can't do much without one.
 2. **Download the [PCSX2 emulator](#).** This is necessary to playtest your mods.
 3. **Acquire a licensed UltraISO.** How you choose to get one is up to you.
- Congrats, now you have everything you need to dump the files from an ISO.

Creating your backup

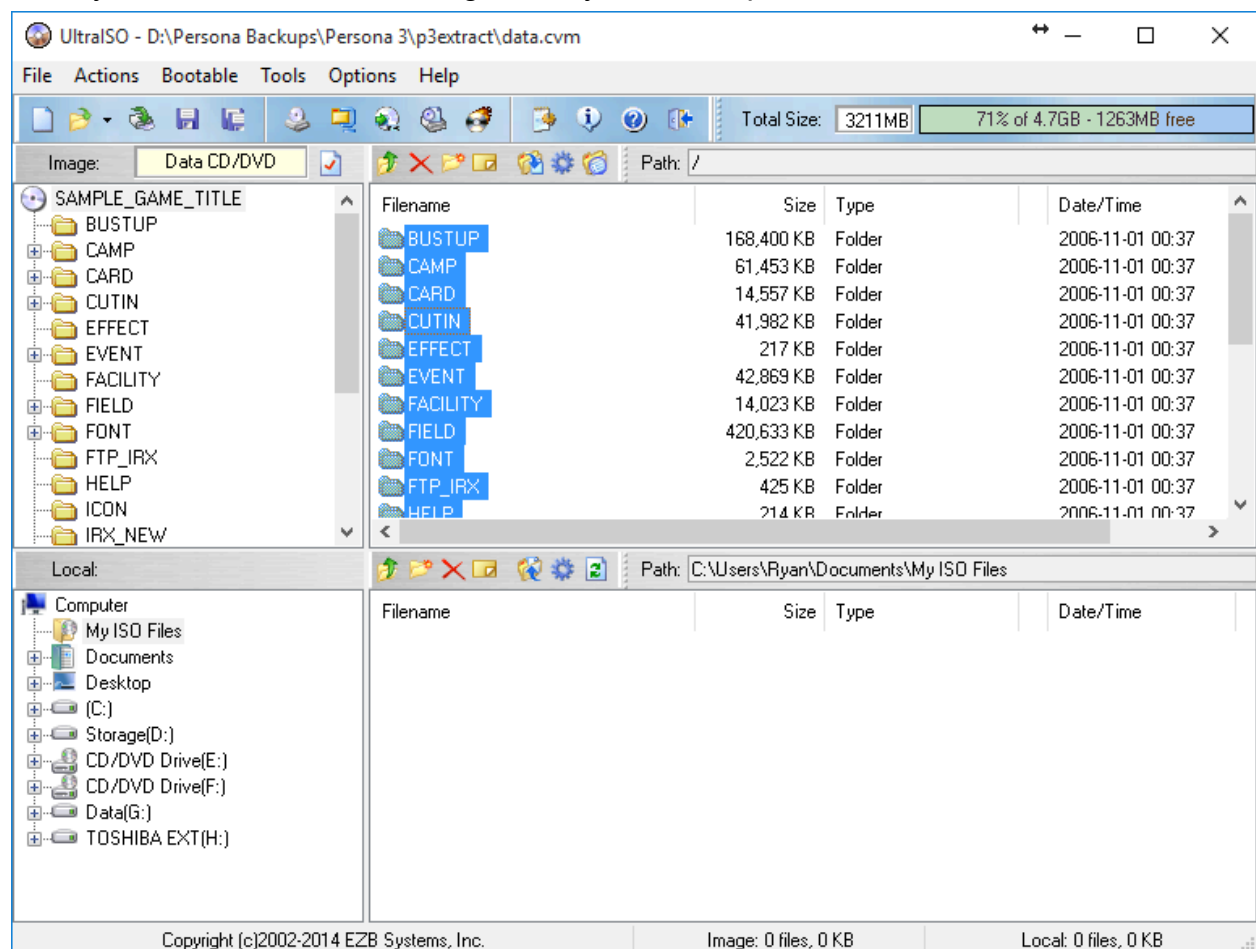


Open the ISO and drag the contents into a new folder with the name of your game. You will need to copy these files many times over the course of your modding adventure.

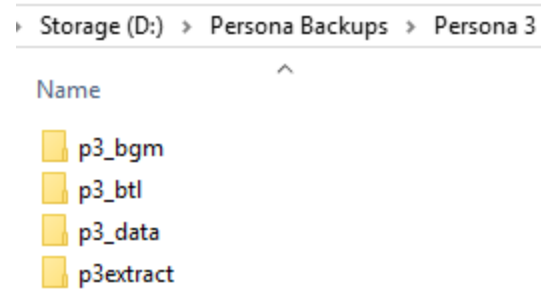
I like to then organize the extracted files to a subfolder, e.g. "p3 extracted."



Once you have extracted and organized your files, open each CVM with UltraISO.



Use CTRL+A to select all, then drag the contents to another subfolder with the name of the CVM. Do this for each CVM until you have something that looks like this:



CVM Types

Get to know the contents of the game before you start editing.

| | |
|------|---|
| bgm | Has all the <i>background music</i> files for the game in ADX format. |
| btl | The <i>battle</i> folder, which hosts in-battle and result screen GUI files in TMX/SPR/BIN format, boss/persona data, and in P3 , the <i>playable character models in PAC/RMD format</i> . |
| data | The... Well, <i>data</i> folder. Has all the out-of-battle stuff, including AFS/ADX sound files, TMX character “bustups” and “cutins,” BF format event script files, and much much more. In P4 , the <i>playable character models in PAC/RMD format</i> . |
| env | Has all the <i>environmental sound effect</i> files for the game in ADX format. |

Now, after exploring these directories and seeing how the game works, you must want to start manipulating the files already, right? First, here’s what they are:

File Types

| Type | Description |
|----------------|--|
| RMD | Node-based model files that contain textures , mesh and animations . |
| PAC/BIN | Containers for scripts, graphics and models. When containing models , they are called PAC . PAC includes ACX and RMD files. |
| ADX | A sound format used for sfx and music . |

| | |
|----------------|--|
| ACX/AFS | A container with multiple ADX files inside. |
| TMX | An image format used by Persona 3 and 4. |
| SPR | A sprite-based set of multiple TMX files. |
| EPL | A container for RMD files used as cut-ins or particle effects . |

For more tools/format info, go to:

https://amicitia.miraheze.org/wiki/Main_Page

That is our wiki, which we keep up to date with all the info we collect regarding Persona games.

The Modding Process

Now that you have everything you need to begin, the next important step is deciding what to change. For beginners, I suggest starting with character swaps. These generally don't require you to make many custom assets, although you will begin to learn how to edit RMDs, PACs, ACX voice files and TMX graphics to make your alternate take on the game more legitimate.

1. Planning

Here are some important locations to note that you might think about changing:

- **Model/NPC** -- the **cutscene** models for **all characters**. You can grab an **RMD** from here to use elsewhere or view/edit/replace these models.
- **Model/PACK** -- the **battle models** for **playable characters**. These are in **PAC** format, and there's one for each weapon/costume combination a character has. You can edit the **textures, voices, or animations**-- even replace the **RMD** model!
- **Model/FIELD** -- the out of battle models for playable characters. These are in **RMD** format, so you can plug in any RMD and change the animations so you can make them move around accurately.
- **BATTLE\CUTIN** -- the location of many different **BIN** files that contain the **graphics** used for all out attacks, critical attacks etc.
- **BATTLE\RESULT** -- The result screen graphics
- **SNB_BENC\BATTLE** -- Location of **Persona 3's** battle HUD graphic elements
- **BUSTUP** -- The character artwork used alongside text in-game, **TMX** files inside **BINs**

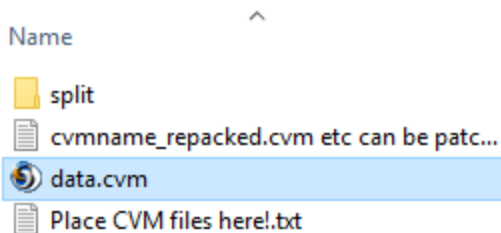
- **CAMP** -- Pause screen graphics, includes smaller versions of HUD icons as well as Persona card images etc.
- **EVENT\SCRIPT** -- **PMx** text files that contain all in-game dialog
- **OPED** -- Title screen graphics
- **SOUND** -- Voice files and sfx for in-game dialog

BE SURE NOT TO SAVE OVER YOUR EXTRACTED FILES! Save your changes to these files in another folder for your own convenience.

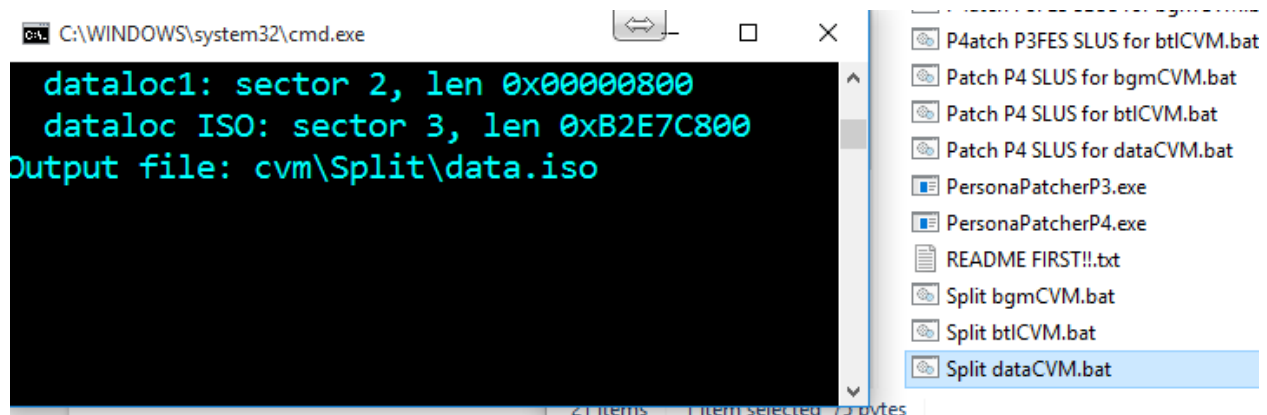
2. Inserting Into the Game

Download [PersonaPatcher](#).

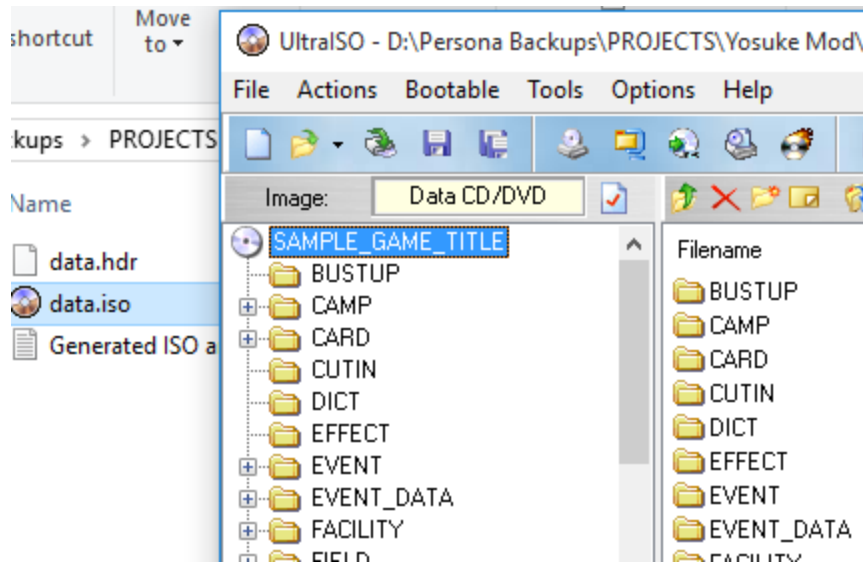
Once you have it, navigate to the “cvm” directory. Make a copy of the CVM file you wish to edit there.



Go back to the root of the patcher folder and run “Split CVM.bat,” then enter the information it asks for (which CVM). For instance, I copied data.cvm to the cvm folder, so I’ll run the BAT and enter “data”



This might take a long time, so don’t close this window until it closes by itself. You need both the ISO and HDR file that it generates, which will appear in the cvm/Split folder.

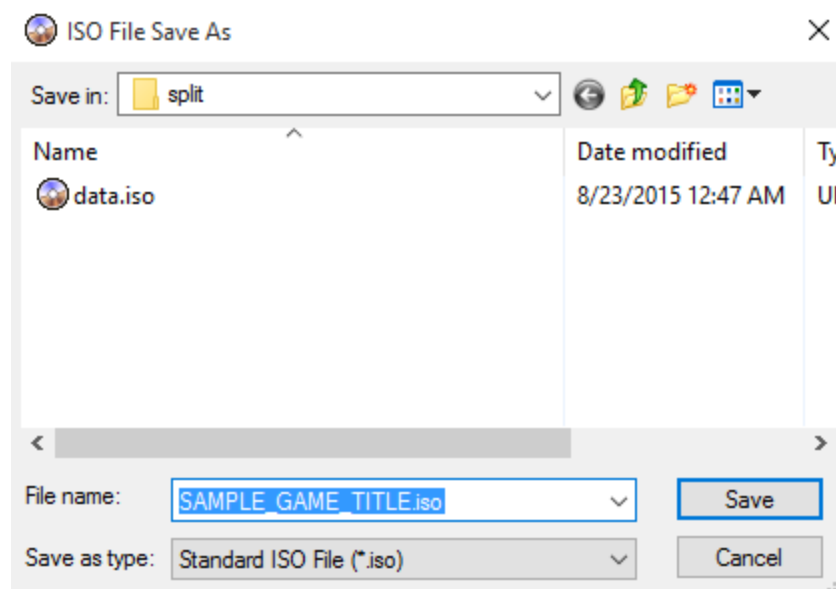


Open the generated ISO file in UltraISO to begin replacing files.

Hint: You can replace multiple files of the same name by dragging and dropping them into their original folder in UltraISO.

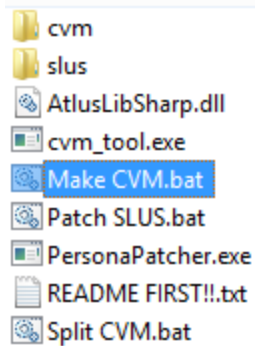
| Filename | Size | Type | Date/Time | LBA |
|--------------|--------|----------|------------------|--------|
| BC001.PAC | 747 KB | PAC File | 2015-08-23 01:20 | |
| BC001_C1.PAC | 688 KB | PAC File | 2008-09-08 00:14 | 498132 |
| BC001_C9.PAC | 686 KB | PAC File | 2008-09-08 00:14 | 498476 |
| BC002.PAC | 751 KB | PAC File | 2015-08-23 01:12 | |

New files will not have a LBA listed, so you can keep track of which ones you already replaced that way.



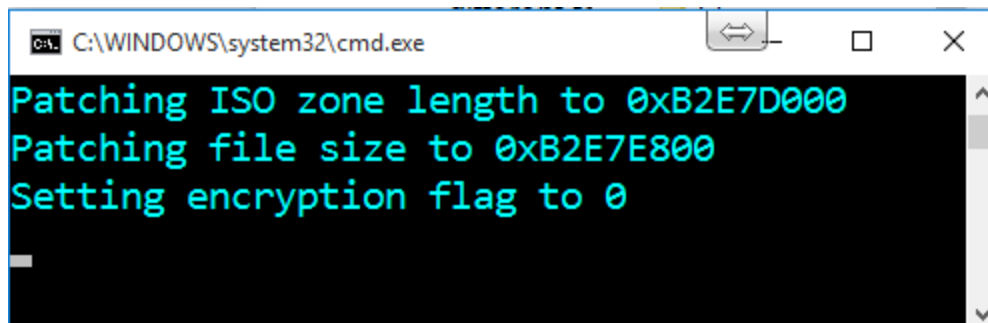
When you're done, hit "Save as" or CTRL+SHIFT+S and save the new ISO file as CVMNAME.iso. Put it in the "cvm/Make" folder. For me, it would be data.iso.

(If for some reason you named it/put it somewhere else, open the “make cvm” bat in notepad and change the paths.)



Go back to the root and run “Make CVM.bat” for the CVM you edited. This will generate a new CVM in the “cvm” folder using the CVMNAME.iso in the cvm/make folder.

When generated, the new CVM appears in the “cvm” folder. it should have “_repacked” appended to the filename.

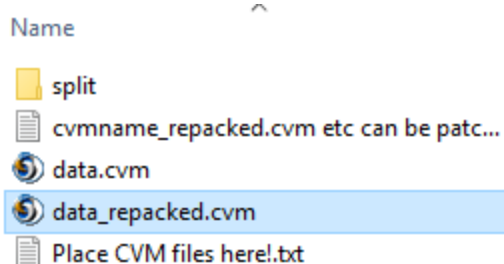


Again, even if it’s taking awhile, leave it alone. It will close when it’s done.

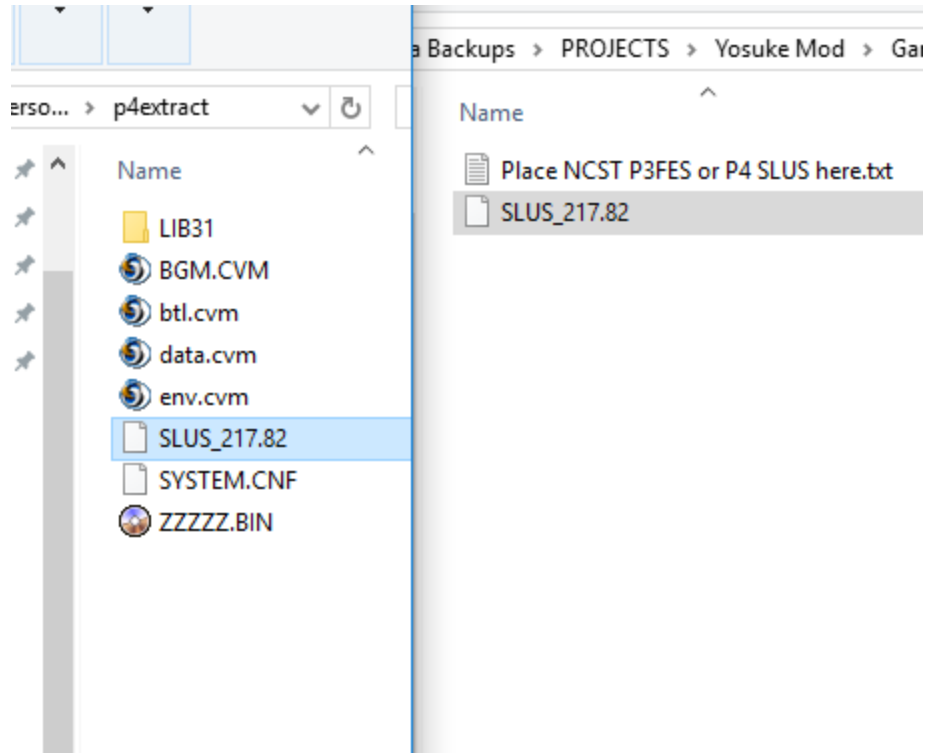
3. Patching

Now that you have a new CVM, you could rename it and put it back in the game... But if the files you replaced are different sizes, it’ll push the offsets away from where the game’s executable expects it, resulting in crashes!

You don’t want that, so let’s continue onto the main function of *PersonaPatcher*.



There's now a **data_repacked.cvm** file in the CVM folder, since we remade that CVM from our split ISO earlier. (**Don't change the filename yet** unless you know what you're doing, or the patcher.exe in the root folder won't know where to find it without editing the BAT files.)

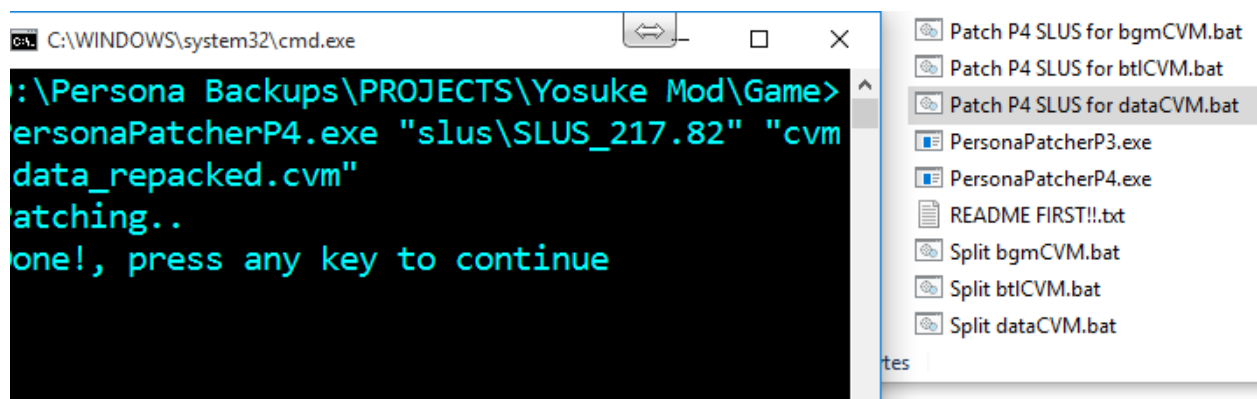


Take the SLUS file you extracted from the ISO earlier and copy it to the “slus” folder (found in the patcher’s root folder). *This is essential.*

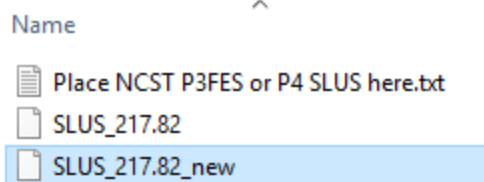
- !P3atch P3FES SLUS for btlCVM.bat
- !P4atch P3FES SLUS for dataCVM.bat
- cvm_tool.exe
- Make bgmCVM.bat
- Make btlCVM.bat
- Make dataCVM.bat
- P3atch P3FES SLUS for bgmCVM.bat
- P3atch P3FES SLUS for dataCVM.bat
- P4atch P3FES SLUS for bgmCVM.bat
- P4atch P3FES SLUS for btlCVM.bat
- Patch P4 SLUS for bgmCVM.bat
- Patch P4 SLUS for btlCVM.bat
- Patch P4 SLUS for dataCVM.bat (selected)

Now choose the “Patch SLUS.bat” file, and follow the prompts. Enter the name of the game (either P3, P3F or P4) and the name of the new CVM. It should quickly tell you

that the process is complete if all went well. If not, edit the BAT in notepad to ensure that the path to the SLUS, PersonaPatcher.exe and CVM are correct.

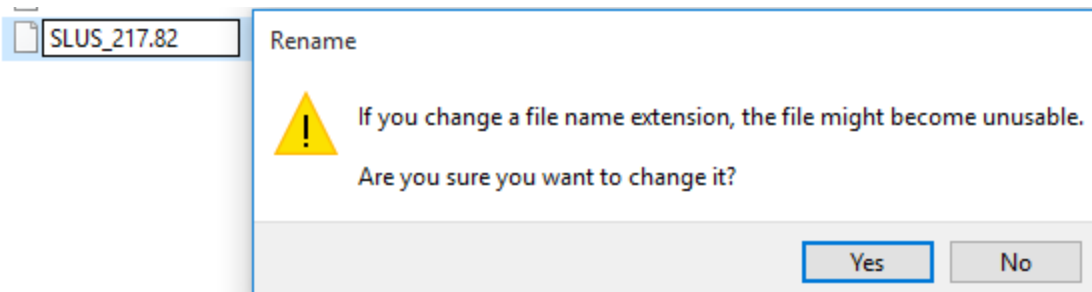


It might seem like a lot at first, but it's easier after you've done it before! As long as you didn't remove or rename the CVM you repacked earlier, it took that and patched the SLUS in the SLUS folder!

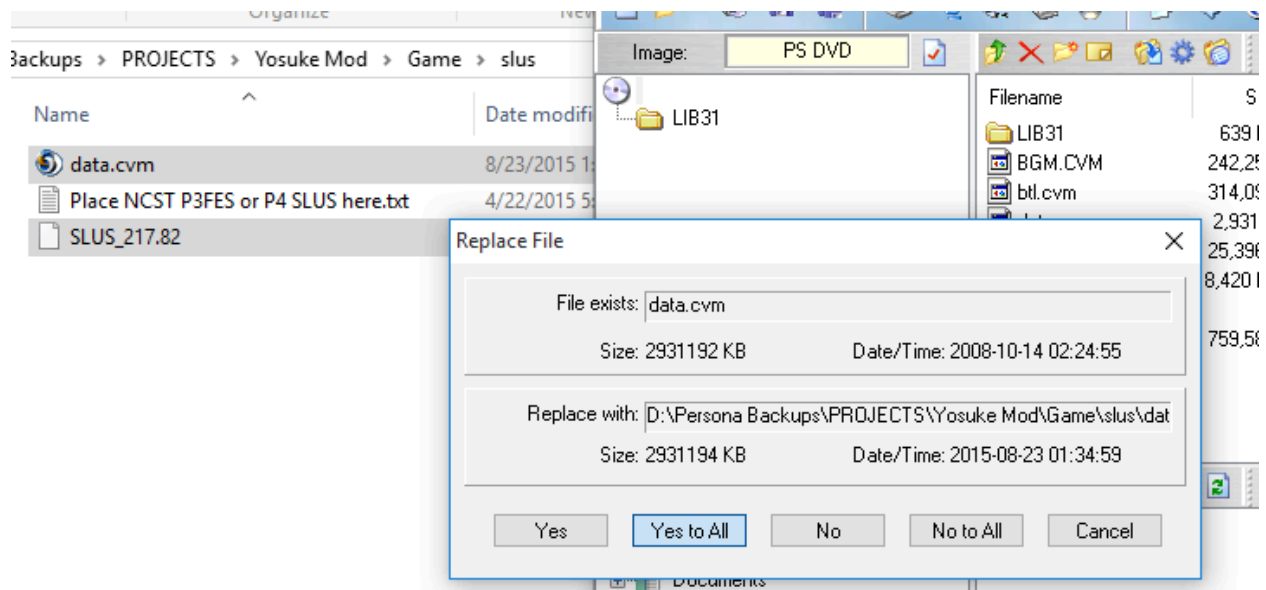


Either way, you can tell it was a success when you have a new SLUS file in the SLUS folder.

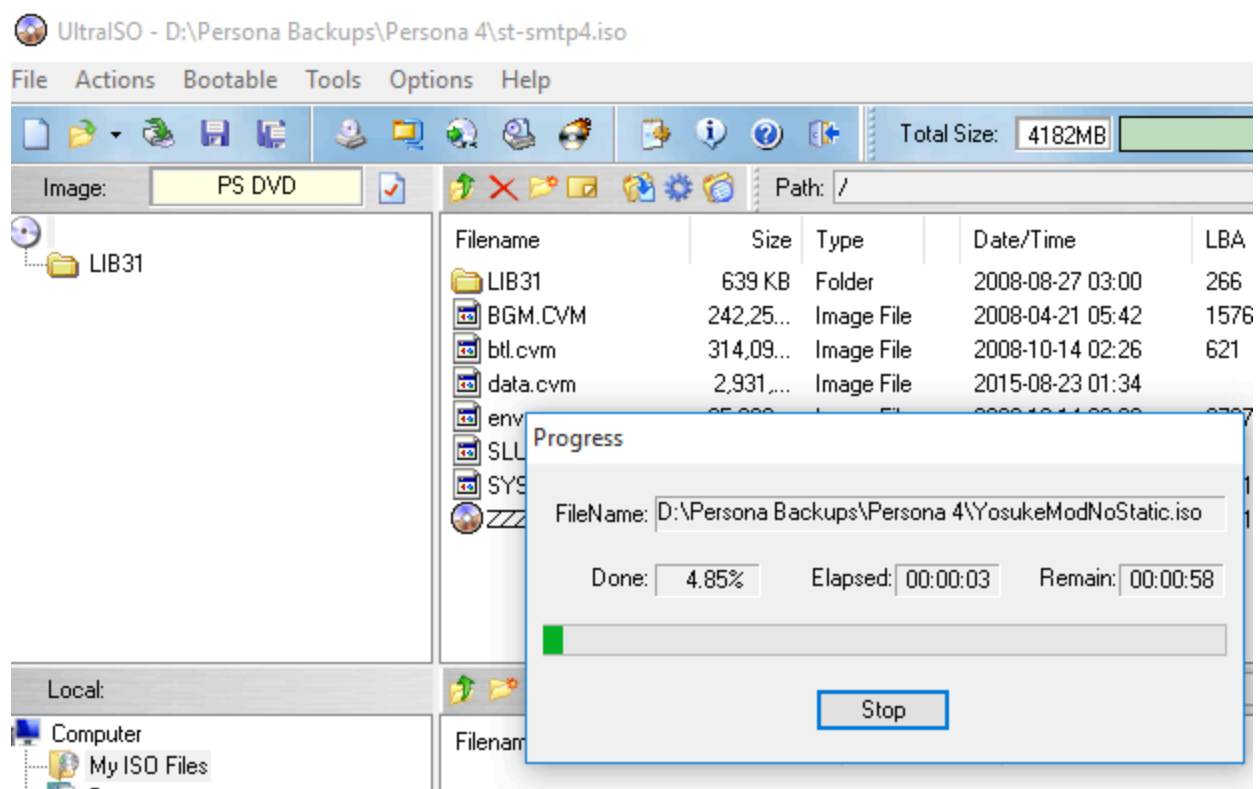
At this point, you can delete the original and rename the new SLUS, removing “_new” from the filename. You can also remove “_repacked” from your new data.cvm.



Ignore this message, it's fine to remove the _new thing.



Open your Persona ISO in UltraISO and drag these new files in. Don't forget both the CVM *and* the SLUS. Respond with "Yes to All" to replace all files of the same filename with these new files.



Be sure to save this as something else so you don't overwrite your original ISO, it's a pain to download a new one. However, if your extracted files are still intact you could always restore your original ISO that way, or use UltraISO's automatic backup feature.

4. Playtesting

Now you have a brand new ISO to run in PCSX2. Here's some Q&A to troubleshoot common problems:

Q: My savestates/cheats no longer work!

A: The game CRC is different now. It's listed in the console when you first run the game, so you can rename files like cheats and saves so that the emulator will recognize that they're compatible with your ISO.

Also a tip, use memory card saves instead of savestates for testing. They're universal to the game across all CRCs.

Q: My game is taking forever to load. PCSX2 says it's "searching for layer 1"

A: This can happen if your ISO is larger in size than a normal DVD. Be patient. If you're sure it's frozen, close the emulator and try again. After you wait long enough the second time, the emulator should give up finding layer one. This happens if it decides the ISO is too big, but the game should still run fine despite it saying that the ISO is incomplete or corrupted.

It should only take this long to start the first time, but you can always make a savestate to speed up this process.

Q: The game froze and said TLB Miss in the PCSX2 console?

A: That could be for a couple of reasons. Either you didn't patch the SLUS file for ALL edited CVMs correctly (or forgot to import the SLUS into the new game iso, forgot to patch at all, grabbed the wrong slus file).

Q: I get a ton of TLB misses when battle loads / music tries to play?

A: You didn't apply the patch for multiple CVMs to the same SLUS. Common mistake. When you delete the original SLUS and rename your new one to remove the "_new" part, go back and patch for a different CVM and repeat until the changes for all CVMs are patched.

Q: Where can I contact you with other questions?

<http://amicitia-team.tumblr.com/ask> -- Our Tumblr message box.

<http://s15.zetaboards.com/Amicitia/topic/8386591/1/> -- Our Discord group

<http://shrinefox.co.vu/ask> -- My personal message box. I'll help out however I can.