Testing Games on fpPS4 Emulator

As of 6 Jan 2023, the emulator has 984 open issues on the [game-compatibility repository](https://github.com/red-prig/fpps4-game-compatibility/issues).

Out of which

* [651 games](https://github.com/red-prig/fpps4-game-compatibility/labels/status-nothing) do nothing
* [144 games](https://github.com/red-prig/fpps4-game-compatibility/labels/status-boots) boot
* [55 games](https://github.com/red-prig/fpps4-game-compatibility/labels/status-menus) get to the menu screen
* [47 games](https://github.com/red-prig/fpps4-game-compatibility/labels/status-ingame) are able to go ingame
* [71 games](https://github.com/red-prig/fpps4-game-compatibility/labels/status-playable) are playable (the framerate might not be considered playable, but the fact that it boots into gameplay without any bugs or issues is enough for now to optimize it for later)

Testing games on the emulator and donating to this project is the best way to support it and further increase its progress and performance even though it performs astonishingly well to be in early stages.

**\*This emulator doesn’t support piracy, hacking your PS4, etc. Please strictly keep these topics out of any discussions on the discord server or ask for any package links there.**

Assuming you have the game with you, there is a big chance it won’t even boot. If it does, then mostly won’t show any reasonable or playable output. AAA titles, especially fall into this category as most of them would need numerous functions implemented beforehand.

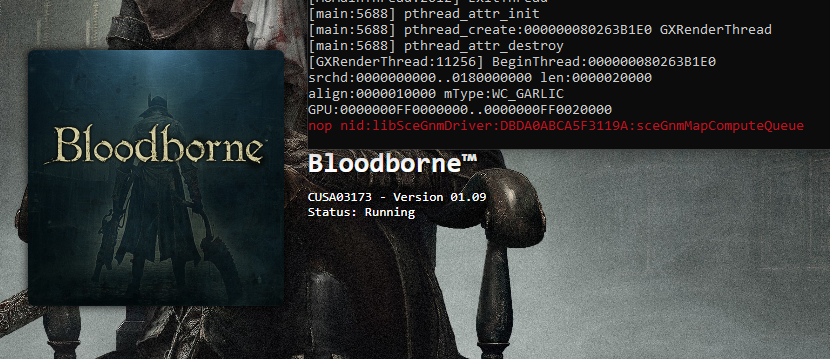
As of now these are the firmware libraries which could be used to resolve an error in emulation (if the need arises) and doesn’t cause any harm in emulation.

* libSceNgs2.prx
* libScePngDec.prx
* libScePngEnc.prx
* libSceJson.prx
* libSceJson2.prx
* libSceZlib.prx

You can place them in your game directory’s **sce\_module** folder or in the emulator’s **sce\_module** folder.

Types of Errors

* **Unimplemented Functions or Nid-Nop Errors**



These are the most common errors which might occur during emulation. These are mainly caused due to a missing library file in your **sce\_module** folder. Placing the required file there might fix it and the emulation may progress further.



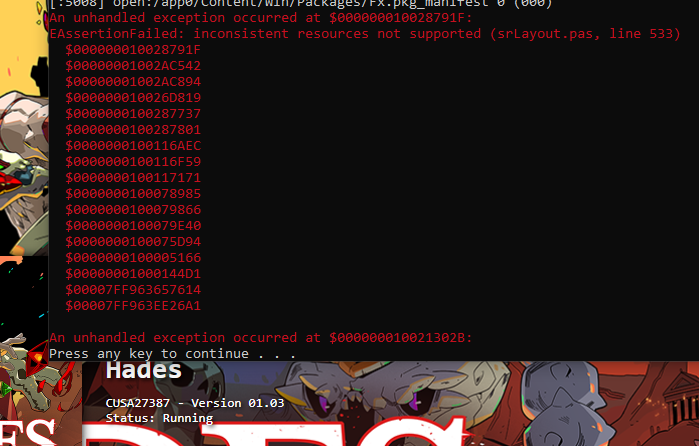
🡺 **The missing firmware library file**

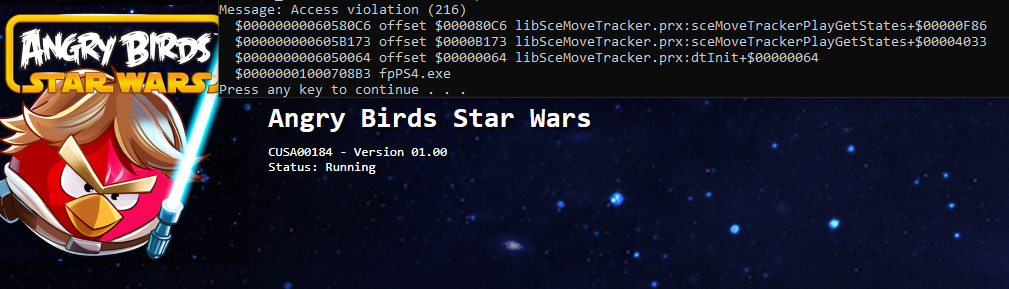
Sometimes placing the missing library file in **sce\_module** folder doesn’t fix the error and the error stays there unfaltering. In that case, the error falls in the category of **“Unimplemented Functionality”** meaning that this particular function belonging to this library hasn’t been implemented in the emulator.

🡺 **The unimplemented function**

In this case, report this back on the **game-compatibility repository** (if it hasn’t already been) and wait till these functions gets implemented in the emulator.

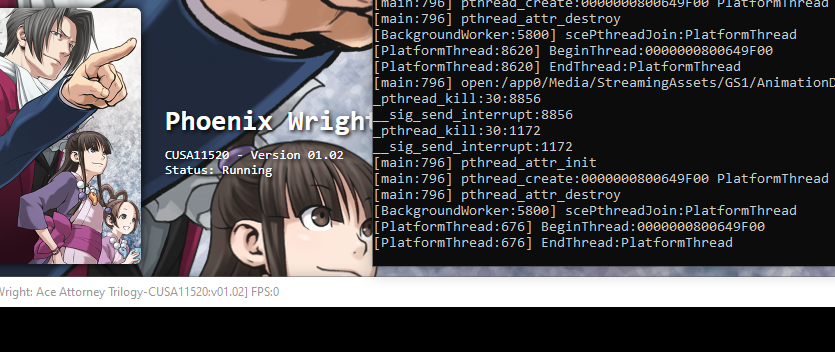
* **Unhandled Exceptions**

These types of errors occur when something unexpected happens or something isn’t behaving as planned. Like **Unimplemented Functions,** reporting these errors back will help the developers to handle these exceptions appropriately.

* **Access Violations**

An **access violation** is a conflict with the rules or policies on which a resource (mostly memory resource) is run resulting in the inaccessibility of resources needed. The conflict is manifested in a system generated error called an access violation error. Like other errors, reporting it back will help the developers to fix them. Access violations may occur with unhandled exceptions, so beware about that.

* **Freezes**



In worst cases, games might not even boot or throw any errors in the console. The console log will freeze at a specific point and wont progress any further. The causes for these cases are undeterminable and couldn’t be categorized without further debugging and testing. It could be possible that the game is loading behind the scenes in the background and given some time might progress further but one can’t pinpoint the root problem in these cases without expertise in these kinds of issues.

Reporting back these bizarre cases might help to debug them and find the complication behind it.

* **Other/New types of Errors and Issues**

As more and more games get tested on the emulator, new types of problems might arise. The best thing to do in that case is to report them back and attach the entire console log with it so that the developers could work on these issues by reading what’s going in the console.

Possible ways to boot or test a game in fpPS4 Emulator

* If it’s an **Unimplemented Function or a nid-nop error**, then adding the required files might fix it.
* Sometimes patching the game or downgrading to an earlier version helps.
* Make sure you are using the latest artifact from the [github repository](https://github.com/red-prig/fpPS4/actions).
* In some cases, your system’s hardware specifications might be holding the emulation back.
* Make sure you have properly setup the emulator.
* Use a good package extractor to properly extract your game files. We recommend [PkgEditor](https://github.com/maxton/LibOrbisPkg/releases/download/v0.2/PkgEditor-0.2.231.zip).
* Don’t copy all firmware library module files into the **sce\_module** folder. It will most probably break even a playable game.

Creating or Updating Issues on Github

Testing games and reporting new developments is the best thing one can do to contribute to the emulator. But, reporting incorrect, partial or missing information won’t benefit anyone. Before creating a new issue, make sure if there isn’t already one with the same name as well as game ID.

If updating an issue then first read the current status to avoid duplicating information or status.

Retest the game when a new commit concerning your issue rolls out.

Things to keep in mind when creating or updating an issue on github:

* **Make sure to include the correct game name, game ID, game version and edition in it.**
* **Always include the correct the commit ID, which you are using to test the game**

**For example: In “red-prig/fpPS4@18f0dc0”, “18f0cd0” is the commit ID of the build one is running the emulator on.**

* **The current status of the game like if the game shows nothing or if it boots, if it gets to the menu screen or ingame or if it’s playable.**
* **Mention the specific error concerning it or the group of errors if there are more than one in different cases.**
* **Include what hacks you used, if you had to use any.**
* **Description of what is happening when you boot the game in simple and comprehensible sentences.**
* **Screenshots, if there are any visuals or gameplay.**
* **Always try to include the log file if the error or behaviour is uncommon or differs from general cases.**
* **Leave notes for developers or testers if you found something new or unusual while testing the game.**