

## Emulator - Emulator Issues #7143

### DualCore timing issues

03/31/2014 01:59 AM - JMC4789

<b>Status:</b> New	<b>% Done:</b> 0%
<b>Priority:</b> Normal	
<b>Assignee:</b>	
<b>Category:</b>	
<b>Target version:</b>	
<b>Operating system:</b> N/A	<b>Relates to performance:</b> No
<b>Issue type:</b> Bug	<b>Easy:</b> No
<b>Milestone:</b>	<b>Relates to maintainability:</b> No
<b>Regression:</b> No	<b>Regression start:</b>
<b>Relates to usability:</b> No	<b>Fixed in:</b>
<b>Description</b>	
Game Name?	
This likely affects almost every game, but I'll list games that I've noticed problems on.	
F-Zero GX - GFZE01 The Legend of Zelda: The Wind Waker - GZLE01 Tales of Symphonia - GQSEAF Sonic Heroes - G9SE8P Skies of Arcadia Legends - GEAE8P New Play Control! Pikmin - R9IE01 Mario Party 5 - GP5E01 The Legend of Zelda: Twilight Princess - GZ2E01, RZDE01 Lego Star Wars: The Video Game - GL5E4F	
What's the problem? Describe what went wrong in few words.	
Within all games, maxing out your processor can result in a fps/vps desync that causes video/audio/CPU to not go at the same speed. This results in various behaviors that have been recorded by many forum users. These issues occur on both HLE and LLE audio even when dealing with audio issues.	
These games all perform perfectly on my computer when I'm not doing something stupid. In this case, I'm rendering a video (which would take all 4 cores to 100% if I wasn't running dolphin) to cause stress that makes these games, and many others react strangely.	
The Legend of Zelda: The Wind Waker can have music desync from cutscenes, various sound effects play strangely (and sometimes not at all) and various game freezes if this happens at a transition. Audio can also crash sporadically, usually when a lot of sounds play at the same time.	
F-Zero GX suffers from two issues. GPU stalling caused by vsync will crash the game completely. This seems to be unrelated in my testing and I just wanted to note it. Blocking the CPU with tons of stress seems to make it reset a lot more than otherwise. It tends to reset even if you can run the game well above full speed anyway, but I just wanted to note that this game was affected by the CPU stress. The music will also go faster/slower than the gameplay, resulting in crackles or distortion.	
The Legend of Zelda: Twilight Princess suffers from audio crashes which can cause the game to hang.	
Tales of Symphonia can hang in dualcore.	
Skies of Arcadia can hang in dualcore	
Lego Star Wars can crash after the opening and during transitions.	
Sonic Heroes music can sometimes loop improperly	

Mario Party 5's music can hang. Will lead to a freeze on certain events.

Pikmin suffers from the same audio issues as Wind Waker. Having the timing issues during the changing of days can cause the game to hang entirely.

I could list most games, Super Mario Galaxy 1/2 and the rest of the Zelda HLE games seem very sensitive to this issue. It seems as though the CPU <-> DSP communication causes a lot more hangs/problems that do not happen in other games.

What steps will reproduce the problem?

[Don't assume we have ever played the game and know any level names. Be as specific as possible.]

1. Either have a weak computer, or run some kind of CPU stress test while running dolphin. The stress test must attempt to use all cores of your CPU for this to work.
2. Run the games either with some kind of framelimiter. Vsync seems to work best as a way to draw out problems.
3. Play them! Keep a note at the fps/vps counter, as you'll notice a ton of desyncs between what they should be vs what they are. 60 fps, 234 vps in Wind Waker, for instance.

These problems seem to affect all builds of Dolphin, and there is not a solution at this time.

I must stress that every single one of these games runs absolutely perfect, even in dualcore, on my computer in normal circumstances. I was inspired to these tests based on the problems others were running into on the forums. Going single core prevents these problems from occurring wholly. Unfortunately, due to the fact that the only people that affected by these problems are those that can barely, if that, run these games at full speed, telling them to go single core won't exactly be a solution to them.

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## History

### #1 - 03/31/2014 02:03 AM - JMC4789

[issue 6907](#) has been merged into this issue.

### #2 - 03/31/2014 09:40 AM - crudelios

I can confirm this happening on various games with vsync on and frame limiter off.

This also happens in the software renderer, which makes it unusable when using dual core, sometimes showing flickering screens, other times throwing lots of error messages.

### #3 - 04/01/2014 09:41 PM - JMC4789

Fire Emblem Path of Radiance seems to suffer from crashing during the stress test I presented above.

### #4 - 04/02/2014 04:53 PM - hwuelpern

According to the forums the dc-netplay branch [1] should fix the desyncs in Skies of Arcadia Legends 2. Another way to provoke those desyncs is to use save states, both loading and saving has a high probability of desyncing.

Sadly this branch is relatively out of date. Also I can't view those commits on github.

[1] <https://dolphin-emu.org/download/list/dc-netplay/>

[2] <https://forums.dolphin-emu.org/Thread-gc-skies-of-arcadia-legends--26018?pid=311001#pid311001>

#### #5 - 04/02/2014 07:19 PM - magumagu9

You can view the commits at <http://code.google.com/p/dolphin-emu/source/list?name=dc-netplay> if you really want to.

#### #6 - 04/09/2014 05:28 PM - hwuelpern

I managed to desync dc-netplay 3.5-2304 with Skies of Arcadia Legends. With dc-netplay 3.5-2468 I could not reproduce a desync while playing until the departure to Shrine Island without framelimit.

#### #7 - 04/14/2014 03:32 PM - hwuelpern

Skies of Arcadia Legends update: 3.5-2443 dc-netplay still desyncs while 3.5-2445 seems to not desync (but crashes very seldomly with some GPU related stuff). Hope this helps.

#### #8 - 04/26/2014 11:41 PM - abalienostats

I'll my comment in the hope Delroth won't close this bug as he did with the other.

I got this even with Xenoblade, even if the outcome is shown a little differently. It still crashes/freezes too, and the netplay branch also causes it to run without freezing.

Same with the two Zeldas and Skies of Arcadia. These are those I sometime test to check if there was any progress.

#### #9 - 04/27/2014 12:00 AM - delroth

- Priority set to Low

#### #10 - 06/05/2014 09:18 PM - JMC4789

[issue 7354](#) has been merged into this issue.

#### #11 - 07/10/2014 04:39 PM - JMC4789

[issue 6705](#) has been merged into this issue.

#### #12 - 07/10/2014 04:40 PM - JMC4789

[issue 3198](#) has been merged into this issue.

#### #13 - 07/10/2014 04:49 PM - JMC4789

[issue 6678](#) has been merged into this issue.

#### #14 - 07/10/2014 07:12 PM - ixtsptf

Just pasting and cleaning up what I originally wrote in [issue 6458](#). The StarFox Adventures demo that's in the July 2002 Multigame Demo Disc (US) hangs and potentially crashes Dolphin after the Rareware logo fades and before the FMV plays with the dual core setting enabled (having it disabled runs the game normally throughout). This problem still occurs as of 4.0-2071 (15c1250d9d3f7aa7821a142582d63f38f782f15a). However, the latest build in the dc-netplay branch (4.0-652 - c5b1ec3329d47006bfddb381f730ad4310528b00) doesn't have this problem. Here's a quick summary from

[issue 6458](#) so that it can be merged:

Game ID?

G95E01 - Interactive Multi Game Demo Disc Jul. 2002  
GSAJ0 - Star Fox Adventures Demo (08 2002.05.17 E3\_2002\_StarFox)

What went wrong?

If you try and run the Star Fox Adventures demo with dual core on (with JIT core), the following errors can occur when the title screen's opening video starts to play (after the rareware logo fades):

- a.) It either crashes Dolphin out right
- b.) Game hangs with annoying sound, then proceeds to crash Dolphin

It's safe to say that the video that plays in the beginning is causing the issue.  
The final retail release (GSAE01) works normally. Although I do remember this game having issues similar to this many years ago.

What steps will reproduce the problem?

This will depend either or not you bother running the game from within the demo disc or you ripped the demo tgc file from the demo disc and converted it to a GCM. But this will assume you did the latter.

(make sure to have dual core enabled and JIT core as well):

- 1.) Start the game
- 2.) After the Nintendo and Rare logo screens fade out, a 3D monitor will appear to start plaything the movie. At this point, Dolphin will present one of the 3 variations I mentioned before

**#15 - 07/10/2014 07:13 PM - JMC4789**

[issue 6458](#) has been merged into this issue.

**#16 - 07/11/2014 12:06 AM - skidau**

The game might be desyncing because of the RTC. To test if this is the case, turn on Dolphin movie recording and check if that prevents the game from freezing:

From the Dolphin, start the game. Once the game has started, stop the game, and then from the Dolphin menu, select Emulation > Start Recording. Now start playing, and see if the game freezes.

Let us know if movie recording makes a difference to this issue.

**#17 - 07/11/2014 12:40 AM - ixtsptf**

Nope, the same thing still occurs. :(

**#18 - 09/21/2014 10:01 AM - JMC4789**

[issue 7637](#) has been merged into this issue.

**#19 - 09/23/2014 08:03 PM - JMC4789**

[issue 7678](#) has been merged into this issue.

**#20 - 10/16/2014 05:09 AM - JMC4789**

[issue 6541](#) has been merged into this issue.

**#21 - 10/18/2014 12:01 PM - JMC4789**

[issue 6931](#) has been merged into this issue.

**#22 - 10/20/2014 01:16 PM - JMC4789**

[issue 7767](#) has been merged into this issue.

**#23 - 11/09/2014 08:01 AM - GoOneDen**

I have been playing Skies of Arcadia Legends and experienced this issue. I noticed that it would crash whenever I opened Google Chrome while playing. Dual core was enabled. I am playing on Windows 7 with a GTX 570. If there's more info. I can provide, please let me know.

**#24 - 11/15/2014 10:07 AM - abalienostats**

From time to time I test the new version with Skies of Arcadia and I also report that nothing has changed.

The weird issue is that around August or September I tested a version of Dolphin that would SKYROCKET in speed, with the game. And this obviously also made the game crash less.

I think this was in the middle of the optimizations done by Fiora. It was great.

In the last month, though, everything reverted. For this game now performance is absolutely TERRIBLE, much, much worse than how it was before the optimization started. Where I was getting 40 fps, now I get 10.

So I don't know what to think. I had good hopes at some point, but now at least for this game things look bleak.

**#25 - 11/15/2014 11:43 AM - abalienostats**

Err, nevermind.

I don't delete the comment because it might be useful to someone:

the slowdown was not related to the latest versions. It seems about the EFB copies option. If I disable it entirely the game runs super fast (and seems to work).

Might be that I changed it to test Xenoblade.

For the record:

I tried adding:  
GPUDeterminismMode fake-completion

to the "default" ini of the game (if I add it through the "edit config" it gets erased as soon I close it). I thought this might have an effect on the crashing,

but nope, no difference.

I'm not even sure if it's properly loaded since I don't know if the way of adding it I used is the right one.

Other observations:

For some reason OpenGL sometimes drops to 11 fps or so, even if the emulation is at 100%. I thought it depended on the "skip EFB access" setting, but after more messing with the options it now does it regardless how I set that option. It's weird. Closing and restarting Dolphin doesn't fix it, and it doesn't seem related to any option specifically.

The limiter somehow gives lower performance. In the sense that if in a scene I get around 20 fps with the limiter on, if I run through the same scene with the limiter off I hover instead around 30 fps (the game should run at 25). So if it can do 30 I wonder why it falls to 20.

#### **#26 - 11/15/2014 11:45 AM - JMC4789**

You need to add an equal to it GPUDeterminismMode = fake-completion.

At least, that's what I think it's supposed to be. We'll be adding it to the game properties page soon for easier access.

#### **#27 - 11/15/2014 01:08 PM - abalienostats**

...wow.

Not only that option fixed the crashes completely (previously I could make it crash within 10 seconds from booting), but it also has excellent performance.

It also seems to work equally well in Xenoblade, where also I was getting crashes from time to time.

It's basically magic.

#### **#28 - 11/15/2014 01:09 PM - JMC4789**

yeah; it's meant to make dualcore return the same results as singlecore. It does not work in all titles, but when it does work, it's a 10% performance down in exchange for very high stability and determinism.

#### **#29 - 11/20/2014 06:01 AM - abalienostats**

Something weird to report:

I was trying to test performance impact, but it varies too wildly.

- Boot the game, load a quicksave: 58 fps fixed
- Close, reboot, reload: 39/40 fps
- Close, reboot, reload: 34 fps
- Close, reboot, reload: 51 fps
- Close, reboot, reload: 31 fps
- Close, reboot, reload: 52 fps

So I get everything from 30 to 59.

The weird thing is that it's not just momentary. If I get 59 fps after a reload, then I get consistently MUCH HIGHER fps. If it's low, it stays low.

**#30 - 11/20/2014 10:44 AM - hwuelpern**

Does the performance inconsistency happen, if you don't use savestates?

What system do you use?

Does it affect Skies of Arcadia, Xenoblade or both?

**#31 - 11/20/2014 11:01 AM - JMC4789**

I'm unable to reproduce the inconsistencies.

**#32 - 11/21/2014 08:33 AM - abalienostats**

No background programs running, not using quicksaves (just loading the game's save), same result.

I'm simply running Skies of Arcadia with limiter off, OpenGL. One time it's 59 fps, then 54, then 47, then it goes to 30. And so on. When it's high it usually stays consistently high even if I wait, if it's low instead it risks losing even more.

I don't even need to close Dolphin. Just close the game window and restart.

E8400 3Ghz CPU, Geforce 750Ti

I tried giving a fixed clock to the GPU but it makes no difference at all (the CPU is bottleneck since I'm even playing at 2x and not more).

It might be because the code reaches one of those typical desynch and so tries to keep the synch at a lower speed? I have no idea, but sometimes it's super fast, and sometimes it's half the speed it could have. Completely at random.

**#33 - 11/21/2014 08:58 AM - abalienostats**

It's also weird that running uncapped 59 fps = 100% CPU utilization.

Capped at 25 fps, so a lot less than even half the speed = 80% CPU utilization.

As a test I tried running the game with framelimiter on, and then run it with framelimiter off, but with an external framelimiter on.

In the first case, the CPU usage stays very high, but it drops on both cores almost uniformly.

In the second case (external framelimiter) the first core drops a lot more, while the second core stays higher. Overall, CPU total usage is less than the first case (like 74% versus 80%), but less uniform.

**#34 - 12/02/2014 06:55 PM - abalienostats**

After more testing and latest version, it's now a bit slower, but I still get degrading performance over time.

The same spot can go from 59 fps down to 30. And 30 is what I get when Dual Core is completely disabled.

So there something preventing hard crashes, but that also slows down performance



**#35 - 12/05/2014 07:33 PM - JMC4789**

[issue 7898](#) has been merged into this issue.

**#36 - 12/10/2014 12:08 PM - abalienostats**

And now I can confirm that the performance variance still depends on desynchs.

I observed for example that booting the game I see 55 fps fixed. Then I go in the background, reload a page on Firefox to steal some cpu. After it's over the game fps stay at something like 37/40, even when the cpu returns completely free. It never catches up with the previous 55 fps.

When it does this also the CPU usage goes down instead of sitting at 100% like when the game runs as fast as possible.

So there is indeed some compensation method that tries slowing the game down when desynch occurs. It doesn't crash anymore, but it slows down a lot, and never goes back to high performance, just stays as low as running the game without Dual Core.

**#37 - 12/29/2014 03:53 AM - Mofoman2000**

I believe I'm suffering a symptom of this issue, but I'm not sure, I considered opening a new issue but figured I'd look for one first.

Every time I boot a game (especially one that plays cinematics before getting to the game or frontend) I get no sound for a little while, and when the sound starts playing it's garbled to maybe 10x speed, until it catches up with the game and continues normally. However I can confirm this happens in both single and dual core modes. However after this, I get no further desynchs.

**#38 - 12/29/2014 03:56 AM - phire**

Mofoman2000: Does this happen only with the OpenAL backend?

**#39 - 12/29/2014 04:01 AM - Mofoman2000**

Huh. Apparently it does. Is there perhaps a different issue I should be looking at after all?

**#40 - 12/29/2014 04:02 AM - phire**

I only really noticed this yesterday.

No idea if there is a proper bug for it.

**#41 - 12/29/2014 04:04 AM - Mofoman2000**

It looks like [issue 7955](#) is the one I'm looking for. Sorry to clutter this up and spam everyone.

**#42 - 12/29/2014 07:43 AM - JMC4789**

[issue 8017](#) has been merged into this issue.

**#43 - 12/29/2014 07:33 PM - pauldacheez**

[issue 8017](#) has been merged into this issue.

**#44 - 01/06/2015 08:47 PM - JMC4789**

[issue 8060](#) has been merged into this issue.

**#45 - 02/02/2015 05:10 PM - JMC4789**

[issue 8190](#) has been merged into this issue.

**#46 - 03/12/2015 03:40 PM - JMC4789**

[issue 8341](#) has been merged into this issue.

**#47 - 04/06/2015 03:20 AM - JMC4789**

[issue 8435](#) has been merged into this issue.

**#48 - 04/06/2015 03:49 AM - JMC4789**

[issue 6897](#) has been merged into this issue.

**#49 - 05/06/2015 01:55 AM - JMC4789**

[issue 8538](#) has been merged into this issue.

**#50 - 06/07/2015 11:50 PM - JMC4789**

[issue 4957](#) has been merged into this issue.

**#51 - 06/08/2015 10:32 PM - JMC4789**

[issue 8641](#) has been merged into this issue.

**#52 - 06/12/2015 05:08 PM - JMC4789**

[issue 8014](#) has been merged into this issue.

**#53 - 11/07/2015 10:28 AM - JosJuice**

- Has duplicate Emulator Issues #9029: Contra ReBirth - Black Screen and freezes added

**#54 - 11/07/2015 10:29 AM - JosJuice**

- Has duplicate Emulator Issues #8944: Wii music random errors added

**#55 - 11/07/2015 10:33 AM - JosJuice**

- Has duplicate Emulator Issues #8942: FIFO overflow and executable memory added

**#56 - 11/07/2015 10:34 AM - JosJuice**

- Has duplicate Emulator Issues #8207: NBA Live 08 has skin texture issues added

**#57 - 11/16/2015 09:03 PM - JosJuice**

- Has duplicate Emulator Issues #9087: Super Mario Sunshine - Shaky Bridge in Bianco Hills added

**#58 - 11/16/2015 11:21 PM - wildgoosespeeder**

**Sonic Adventure 2 - Battle** inevitably crashes with dual core enabled. **Syncing GPU Thread** doesn't help. I noticed that wasn't in the list or wasn't mentioned by anyone (ctrl+f).

**#59 - 11/20/2015 07:11 AM - JosJuice**

- Has duplicate Emulator Issues #9011: FIFO is Overflowed by GatherPipe added

**#60 - 12/20/2015 03:22 PM - JMC4789**

- Related to Emulator Issues #9179: Paper Mario (VC) - Glitch box textures while transitioning in Select File screen added

**#61 - 12/20/2015 03:31 PM - JosJuice**

- Related to deleted (Emulator Issues #9179: Paper Mario (VC) - Glitch box textures while transitioning in Select File screen)

**#62 - 12/20/2015 03:31 PM - JosJuice**

- Has duplicate Emulator Issues #9179: Paper Mario (VC) - Glitch box textures while transitioning in Select File screen added

**#63 - 01/20/2016 05:00 PM - JMC4789**

- Has duplicate Emulator Issues #9064: Disaster: Day of Crisis crashing added

**#64 - 02/05/2016 10:27 AM - JosJuice**

- Has duplicate Emulator Issues #9319: Metal Gear Solid, glitched with Dual Core ON added

**#65 - 02/05/2016 11:22 AM - JosJuice**

- Has duplicate Emulator Issues #9323: 1080<sup>q</sup> Avalanche, glitched with Dual Core ON added

**#66 - 02/07/2016 11:46 AM - JMC4789**

- Has duplicate Emulator Issues #9312: Pixel shader error report in Mario Superstar Baseball added

**#67 - 02/07/2016 05:21 PM - JosJuice**

- Has duplicate deleted (Emulator Issues #9312: Pixel shader error report in Mario Superstar Baseball)

**#68 - 06/24/2016 10:51 AM - JosJuice**

- % Done changed from 100 to 0

**#69 - 01/29/2017 06:46 PM - JMC4789**

- Related to Emulator Issues #10064: [Short description of your bug here (~10 words)] added

**#70 - 01/29/2017 06:46 PM - JMC4789**

- Related to deleted (Emulator Issues #10064: [Short description of your bug here (~10 words)])

**#71 - 01/29/2017 06:46 PM - JMC4789**

- Has duplicate Emulator Issues #10064: [Short description of your bug here (~10 words)] added

**#72 - 01/29/2017 08:21 PM - JMC4789**

- Has duplicate Emulator Issues #7963: The Lens Flare in Wind Waker is glitchy in dualcore (CPUTiming) added

**#73 - 01/30/2017 10:55 PM - JMC4789**

- Has duplicate Emulator Issues #9855: Geist crashes Dolphin added

**#74 - 01/30/2017 11:04 PM - JMC4789**

- Related to Emulator Issues #9013: Metroid Prime Trilogy XFB Virtual Black Screen Flickering added

**#75 - 03/18/2017 05:13 AM - JMC4789**

- Related to Emulator Issues #10157: Gradius ReBirth flickering sprites added

**#76 - 03/18/2017 05:14 AM - JMC4789**

- Related to deleted (Emulator Issues #10157: Gradius ReBirth flickering sprites)

**#77 - 03/18/2017 05:14 AM - JMC4789**

- Is duplicate of Emulator Issues #10157: Gradius ReBirth flickering sprites added

**#78 - 03/18/2017 08:02 AM - JosJuice**

- Is duplicate of deleted (Emulator Issues #10157: Gradius ReBirth flickering sprites)

**#79 - 03/18/2017 08:02 AM - JosJuice**

- Has duplicate Emulator Issues #10157: *Gradius ReBirth flickering sprites added*

**#80 - 08/08/2017 09:17 AM - JMC4789**

- Has duplicate Emulator Issues #10107: *Garbled transition in Paper Mario TTYD added*

**#81 - 08/08/2017 10:03 AM - JMC4789**

- Has duplicate Emulator Issues #6500: *Certain games with Miis glitch faces with Dualcore Enabled added*

**#82 - 08/12/2017 12:34 PM - JMC4789**

- Has duplicate Emulator Issues #8041: *FIFO is overflowed by gatherpipe! CPU thread is too fast! added*

**#83 - 10/25/2017 06:58 AM - JMC4789**

- Has duplicate Emulator Issues #10604: *Pokemon Colosseum character shakes if emulation speed is unlimited added*

**#84 - 11/23/2017 10:14 AM - JMC4789**

- Related to Emulator Issues #10656: *Pac-Man World 2 now requires VSync to be turned off added*

**#85 - 11/23/2017 02:58 PM - JosJuice**

- Related to deleted (Emulator Issues #10656: *Pac-Man World 2 now requires VSync to be turned off* )

**#86 - 11/23/2017 02:58 PM - JosJuice**

- Has duplicate Emulator Issues #10656: *Pac-Man World 2 now requires VSync to be turned off added*

**#87 - 11/23/2017 02:58 PM - JosJuice**

- Related to deleted (Emulator Issues #9013: *Metroid Prime Trilogy XFB Virtual Black Screen Flickering*)

**#88 - 11/23/2017 02:58 PM - JosJuice**

- Has duplicate Emulator Issues #9013: *Metroid Prime Trilogy XFB Virtual Black Screen Flickering added*

**#89 - 12/30/2017 11:01 AM - kolano**

Harry Potter and The Half-Blood Prince (RH6E69) displays only black /w Dual Core enabled.

**#90 - 12/30/2017 11:38 AM - kolano**

Also:

[https://wiki.dolphin-emu.org/index.php?title=Hasbro\\_Family\\_Game\\_Night\\_2](https://wiki.dolphin-emu.org/index.php?title=Hasbro_Family_Game_Night_2)

**#91 - 12/31/2017 03:38 AM - kolano**

Also:

[https://wiki.dolphin-emu.org/index.php?title=Goblin\\_Commander:\\_Unleash\\_the\\_Horde#Problems](https://wiki.dolphin-emu.org/index.php?title=Goblin_Commander:_Unleash_the_Horde#Problems)

**#92 - 01/13/2018 05:44 PM - JosJuice**

- Has duplicate Emulator Issues #10776: *Sonic Adventure 2 Battle - Dual Core graphical errors and crash on Route 101 added*

**#93 - 01/21/2018 12:41 AM - kolano**

Also:

[https://wiki.dolphin-emu.org/index.php?title=Cartoon\\_Network:\\_Punch\\_Time\\_Explosion\\_XL](https://wiki.dolphin-emu.org/index.php?title=Cartoon_Network:_Punch_Time_Explosion_XL)

Where invalid read errors occur in Dual Core mode

**#94 - 01/24/2018 06:35 AM - Helios**

- Related to Emulator Issues #10822: Super Monkey Ball Adventure super glichy and craches added

**#95 - 01/24/2018 06:35 AM - Helios**

- Related to deleted (Emulator Issues #10822: Super Monkey Ball Adventure super glichy and craches)

**#96 - 01/24/2018 06:35 AM - Helios**

- Has duplicate Emulator Issues #10822: Super Monkey Ball Adventure super glichy and craches added

**#97 - 05/23/2018 04:23 AM - JMC4789**

- Has duplicate Emulator Issues #10827: PoP Sands of Time Unknown Opcode error before end credits added

**#98 - 05/23/2018 06:11 AM - JMC4789**

- Has duplicate Emulator Issues #11115: [Dualcore] Dolphin Completely Freezes when Closing TimeSplitters 2 added

**#99 - 05/23/2018 06:11 AM - JMC4789**

- Has duplicate deleted (Emulator Issues #11115: [Dualcore] Dolphin Completely Freezes when Closing TimeSplitters 2)

**#100 - 05/23/2018 06:50 AM - JMC4789**

- Has duplicate Emulator Issues #10601: Sonic Adventure 2 Battle crashes during Kart Race added

**#101 - 05/23/2018 10:15 AM - JMC4789**

- Has duplicate Emulator Issues #10809: Second Sight horrible framerate drops/chugging with Dual Core added

**#102 - 05/23/2018 10:28 AM - JMC4789**

- Related to Emulator Issues #10438: VULKAN: game Star Wars Rogue Squadron III: Rebel Strike crashes after the "disco intro" added

**#103 - 05/23/2018 11:27 AM - JMC4789**

- Has duplicate Emulator Issues #10536: Sonic Colors UI sometimes solid-fills with fog colour when not using Ubershaders added

**#104 - 05/23/2018 10:54 PM - JMC4789**

- Has duplicate Emulator Issues #10179: Super Paper Mario Chapter 6 Crash on OpenGL backend added

**#105 - 05/23/2018 11:23 PM - JMC4789**

- Has duplicate Emulator Issues #9940: House of the Dead Overkill crash on Vulkan and unusable on OpenGL added

**#106 - 07/05/2018 03:54 PM - JMC4789**

- Has duplicate Emulator Issues #11246: Metroid Prime 3 crashes sometimes after closing the map added

**#107 - 12/25/2018 09:03 PM - JMC4789**

- Related to Emulator Issues #11469: Boom Blox and Boom Blox Bash Party both occasionally lock up after level select screen added

**#108 - 12/25/2018 09:03 PM - JMC4789**

- Related to deleted (Emulator Issues #11469: Boom Blox and Boom Blox Bash Party both occasionally lock up after level select screen)

**#109 - 12/25/2018 09:03 PM - JMC4789**

- Has duplicate Emulator Issues #11469: Boom Blox and Boom Blox Bash Party both occasionally lock up after level select screen added

**#110 - 12/27/2018 12:56 PM - JMC4789**

- Has duplicate Emulator Issues #11306: Wii Sports Resort needs "Single core" added

**#111 - 12/29/2018 12:29 PM - JMC4789**

- Has duplicate Emulator Issues #11505: *The Dog Island - Lag During Lens Flare Effect in Opening Cutscene* added

**#112 - 12/29/2018 02:49 PM - JMC4789**

- Has duplicate Emulator Issues #9539: *Controller issue at Hang Castle level (Sonic Heroes) [Dolphin 4.0-9308]* added

**#113 - 01/07/2019 12:48 PM - JMC4789**

- Has duplicate Emulator Issues #11148: *Project M / Legacy TE launcher doesn't run* added

**#114 - 04/19/2019 04:53 PM - JMC4789**

- Has duplicate Emulator Issues #11663: *SpongeBob SquarePants: Revenge of the Flying Dutchman - Model Corruption in Dual Core mode* added

**#115 - 04/19/2019 05:06 PM - JMC4789**

- Has duplicate Emulator Issues #11632: *Tony Hawk's Pro Skater 3 CPU thread too fast crash* added

**#116 - 04/19/2019 05:10 PM - JMC4789**

- Has duplicate Emulator Issues #11591: *Super Paper Mario Door Animation Skip* added

**#117 - 06/02/2019 11:05 PM - JMC4789**

- Has duplicate Emulator Issues #11747: *Fire Emblem: Path of Radiance Crashes during Dialogue* added

**#118 - 07/07/2019 11:32 AM - JMC4789**

- Has duplicate Emulator Issues #11788: *Prince of Persia - The Forgotten Sands (Shadow Glitch)* added

**#119 - 11/29/2019 07:09 PM - JosJuice**

- Has duplicate Emulator Issues #11912: *Hasbro Family Game Night errors* added

**#120 - 01/11/2020 11:01 PM - JosJuice**

- Has duplicate Emulator Issues #11948: *Glitchy shadows in Marble Saga: Kororinpa* added

**#121 - 02/15/2020 01:40 PM - JosJuice**

- Related to deleted (Emulator Issues #10438: *VULKAN: game Star Wars Rogue Squadron III: Rebel Strike crashes after the "disco intro"*)

**#122 - 06/21/2020 10:04 AM - nf6429**

Yakuman Wii: Ide Yosuke no Kenkou Mahjong has dualcore issues where save file character select miis flicker, and the character select screen flickers in and out of existence.

**#123 - 08/03/2020 12:58 AM - ryanebola16**

Super Monkey Ball (GMBE8P) Advanced Stage 10 seems to randomly stretch the screen then quickly return it to the proper size (widescreen mode detection issue?) on 5.0-12369. Single core does not have this problem. Let me know if I should file a separate issue for this.

**#124 - 09/11/2020 03:56 PM - JMC4789**

- Has duplicate Emulator Issues #9328: *Missing textures after long gameplay session in Custom Robo* added

**#125 - 09/11/2020 03:57 PM - JMC4789**

- Has duplicate Emulator Issues #9312: *Pixel shader error report in Mario Superstar Baseball* added

**#126 - 09/11/2020 04:23 PM - JMC4789**

- Has duplicate Emulator Issues #11916: *NBA 2K13 - flickering crowd* added

**#127 - 09/12/2020 08:46 AM - JMC4789**

- Has duplicate Emulator Issues #11857: GFEE01 hangs at startup with dualcore enabled since 5874 (hybrid xfb) added

**#128 - 09/12/2020 12:36 PM - JMC4789**

- Has duplicate Emulator Issues #11709: Hunter: The Reckoning has strange slowdown after 5.0-9869 added

**#129 - 09/12/2020 01:05 PM - JMC4789**

- Has duplicate Emulator Issues #12065: GC Zelda OoT windowed instability added

**#130 - 11/16/2020 06:06 PM - nf6429**

Some Namco arcade games on virtual console have dualcore flickering and opcode issues for the first menu when starting the games.