

## Emulator - Emulator Issues #7219

### 007 Agent Under Fire - Savestate Inaccuracies.

04/21/2014 04:52 PM - aleckerm76

|  |                                       |
|--|---------------------------------------|
| <b>Status:</b> Accepted  | <b>% Done:</b> 0%                     |
| <b>Priority:</b> Normal  |                                       |
| <b>Assignee:</b>   |                                       |
| <b>Category:</b> PPC   |                                       |
| <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?<br>007 Agent Under Fire   |                                       |
| Game ID?<br>GW7E69   |                                       |
| What's the problem? Describe what went wrong in few words.<br>Pressing B to do the 180 degree turn move in an on-rail level causes desyncs at specific (consistent) spots when TASing, presumably in areas where actors load/lag occurs in the game engine.  |                                       |
| What did you expect to happen instead?<br>Playback syncing, have had 0 issues syncing elsewhere in the game so far.  |                                       |
| What steps will reproduce the problem?<br>1. Start the on-rails second level "Precious Cargo", start a TAS recording.<br>2. Spam the B button when approaching the highway exit until an enemy blue van appears in front of you (roughly 38-40) seconds into the level).<br>3. After following the blue van for a few seconds take notice of the direction you're facing, stop recording and play it back. It should desync near the moment the van appears, having you end up facing in a different direction at the end. You can also desync by using B in this level when driving over the grassy area, when passing by the gas station you blow up, and when entering the building near the end. |                                       |
| Which versions of Dolphin did you test on?<br>4.0-1356, and 4.0-1446(latest as of 11:40am CST 4/21/2014)   |                                       |
| Does using an older version of Dolphin solve your issue? If yes, which versions of Dolphin used to work?<br>Unknown.   |                                       |
| What are your PC specifications?<br>Windows 8 laptop, Corei3, integrated intel graphics.   |                                       |
| Are you using the 32 or the 64 bit version of Dolphin?<br>64   |                                       |
| Is there any other relevant information?<br>nope   |                                       |
| <b>Related issues:</b>   |                                       |
| Has duplicate Emulator - Emulator Issues #7497: 007 Agent Under Fire - Desyn...  | <b>Duplicate</b>                      |

### History

**#1 - 04/21/2014 04:56 PM - delroth**

- Status changed from New to Accepted
- Priority set to Normal
- Category set to ppc

Could you maybe provide a memory card/GCI file with the mission unlocked as well as a DTM file that reproduces this issue?

Several people have confirmed this over at TASVideos, marking as accepted.

**#2 - 04/21/2014 04:58 PM - aleckerm76**

Currently working on a TAS of this game with a few other guys, we can simply avoid using that B button move to prevent desyncs for now. It never saves time in the run, is was just convenient.

**#3 - 04/21/2014 04:59 PM - rachelbryk**

Can you post a dtm of it desyncing?

**#4 - 04/21/2014 05:09 PM - aleckerm76**

Here's a DTM of the TAS so far that'll take you to level two in just a couple of minutes time: <https://www.mediafire.com/?dna4w2ri28prmbb> For me this desyncs right after the gas station, for another guy on our team it desyncs when your car drives over the grassy area midway through the level.

**#5 - 04/21/2014 05:11 PM - aleckerm76**

Settings for emulator are same as rachelb's recommended ones on TASvids forum. Memory card slot set to nothing. Uses real DSP files, not ones that come with emulator.

**#6 - 04/21/2014 05:25 PM - aleckerm76**

Found a save file with level 2 unlocked: <https://dl.dropboxusercontent.com/u/484730/JamesBondAgentUnderFireLevel2.gci>

**#7 - 04/21/2014 05:53 PM - rachelbryk**

Your dtm successfully completed level 2 for me.

**#8 - 04/21/2014 06:06 PM - aleckerm76**

Getting desync WITHOUT the B move at the lawn section between me (win8 64 bit) and solarplex (win7 64 bit).... I'm not sure what to believe anymore...

**#9 - 04/21/2014 06:07 PM - rachelbryk**

Are you sure your settings are the same?

**#10 - 04/21/2014 06:14 PM - aleckerm76**

Pretty positive.

**#11 - 04/21/2014 06:15 PM - rachelbryk**

Does the dtm you posted before sync for anyone else other than me?

**#12 - 04/21/2014 06:16 PM - aleckerm76**

Yes, Veman and I sync up until after gas station. Solarplex desyncs with us at lawn.

**#13 - 04/21/2014 06:17 PM - rachelbryk**

I mean does it complete the entire level for anyone else?

**#14 - 04/21/2014 06:19 PM - aleckerm76**

No, it is for you??

**#15 - 04/21/2014 06:20 PM - rachelbryk**

Yes.

**#16 - 04/21/2014 06:21 PM - aleckerm76**

What the shits. See, I was able to finish playback myself when I first finished the level, but then my playbacks after all desync'd... lemme play it back again... God I hope we can solve this... and continue at level 3...

**#17 - 04/21/2014 06:27 PM - aleckerm76**

I'm desyncing, shots on first of three guys outside of the building we drive through miss.

**#18 - 04/21/2014 06:38 PM - comexk**

Please attempt to confirm that you can get multiple outcomes with the same dtm on the same computer without changing any settings in between. That would help truly confirm the issue.

**#19 - 04/21/2014 06:50 PM - aleckerm76**

SYNC'D! The settings when you right click the game on dolphin were different between us somehow.... I'll post back if solarplex is still unable to sync past lawn... God I feel stupid... does Dolphin ignore the config settings and use the game's custom settings by default in the newer versions or...

**#20 - 04/21/2014 06:52 PM - aleckerm76**

I just unchecked everything in the game's settings to get the sync.... is there anything that should be left checked for any reason?

**#21 - 04/21/2014 06:52 PM - rachelbryk**

What setting? Most should be saved in the dtm, and read from there.

**#22 - 04/21/2014 07:16 PM - aleckerm76**

Solarplex is still unable to sync at lawn part, despite unchecking all of the game settings. Veman and I sync all the way through. You can see how this issue got confusing...

**#23 - 04/21/2014 08:53 PM - JMC4789**

I decided to do a less intensive test of using Netplay to make sure nothing's seriously wrong with this game. I went through the first three levels with no desyncs in a simple netplay session.

Aleckerm76: Do all three people tasing it have the same disc md5 and such?

**#24 - 04/21/2014 09:01 PM - aleckerm76**

Yeah definitely the same disc.

**#26 - 01/16/2015 07:23 PM - aleckerm76**

This issue was a misconception on my part by the way, this move in the game has nothing to do with the issue. There is a savestate accuracy issue in the vehicle levels of this game that causes playbacks to desync. A playback that used little-to-no savestates will sync just fine, whereas if you re-record in the wrong place the playback will be desync'd.

**#27 - 01/16/2015 07:25 PM - JMC4789**

Okay, that's interesting. I'll change the name. If you use Full MMU instead of MMU speedhack; does that fix the issue?

**#28 - 01/16/2015 08:40 PM - aleckermi76**

I'll be sure to try that when I have time.

**#29 - 01/17/2015 06:48 PM - aleckermi76**

How do you change the Full MMU/MMU speedhack setting?

**#30 - 01/19/2015 10:07 PM - aleckermi76**

I right-clicked the game in the Dolphin window and checked "Enable MMU" (by default it's completely unchecked). Started a recording of level 2 and made & loaded savestates in many spots. Played it back and it desync'd at gas station (common desync spot).

**#31 - 01/25/2015 02:28 PM - JMC4789**

The question now becomes: What is actually changing between them? Is it GPU related? (Perf-queries aren't correctly saved in savestates, for instance) or CPU related?

I have no idea and no idea how to find out :(

**#32 - 02/23/2015 02:12 AM - JMC4789**

[issue 7497](#) has been merged into this issue.

**#33 - 08/16/2015 12:45 AM - jesse\_lun**

Since this hasn't been posted here yet, desyncs happen for the following gamecube games as well:

F-Zero GX

<http://tasvideos.org/forum/viewtopic.php?p=401177#401177>

Metroid Prime

<http://tasvideos.org/forum/viewtopic.php?p=413807#413807>

Spiderman 2

<http://tasvideos.org/forum/viewtopic.php?p=397774#397774>

Not sure if it's all the same issue, or something else however.

**#34 - 08/09/2017 12:06 AM - JMC4789**

It turns out savestates definitely are not deterministic. I'll be closing this issue momentarily.

**#35 - 08/09/2017 12:09 AM - JMC4789**

- Status changed from Accepted to Duplicate

Replacing with 10448

**#36 - 08/09/2017 12:09 AM - JMC4789**

- Is duplicate of Emulator Issues #10448: Savestates are not deterministic added

**#37 - 08/10/2017 09:12 AM - JosJuice**

- *Is duplicate of deleted (Emulator Issues #10448: Savestates are not deterministic)*

**#38 - 08/10/2017 09:12 AM - JosJuice**

- *Status changed from Duplicate to Accepted*