Emulator - Emulator Issues #11580

CSI: Hard Evidence does not boot when using x64 JIT

02/24/2019 05:56 PM - JosJuice

Status:	Fixed	**% Done:**		0%
Priority:	Normal			
Assignee:				
Category:				
Target version:				
Operating system:	N/A	**Relates to performance:**		No
Issue type:	Bug	**Easy:**		No
Milestone:	Current	**Relates to maintainability:**		No
Regression:	Yes	**Regression start:**		4.0-2647
Relates to usability:	No	**Fixed in:**		5.0-10039

Description

Game Name?

CSI: Hard Evidence

Game ID? (right click the game in the game list, properties, info tab)

RCIP41

MD5 Hash? (right click the game in the game list, properties, info tab, MD5 Hash: Compute)

7794b556f3fadff8be6fcdde4128dc78

What's the problem? Describe what went wrong.

If you are using JIT, the game does not boot. The emulation window shows up, but it never gets to the point where it renders a frame and the window title changes to show the framerate. The logs do show the game reading some data from the disc, though.

The game booted when I tried cached interpreter, but later the game seemed to freeze during the unskippable intro cinematic (after the company logos and before the title screen).

What steps will reproduce the problem?

Use JIT and launch the game.

Is the issue present in the latest development version? For future reference, please also write down the version number of the latest development version.

Yes, 5.0-9620.

If the issue isn't present in the latest stable version, which is the first broken version? (You can find the first broken version by bisecting. Windows users can use the tool https://forums.dolphin-emu.org/Thread-green-notice-development-thread-unofficial-dolphin-bisection-tool-for-finding-broken-builds and anyone who is building Dolphin on their own can use git bisect.)

4.0-2647 according to https://forums.dolphin-emu.org/Thread-wii-csi-crime-scene-investigation-hard-evidence?pid=462910#pid462910. (I have verified that the game still doesn't boot, but I haven't verified that this is the correct bisect.)

What are your PC specifications? (CPU, GPU, Operating System, more)

Windows 10 x64
Intel Core i5-7300HQ (2.50 GHz)

Nvidia GTX 1050 (2 GiB)
8 GiB RAM

History

#1 - 02/26/2019 09:46 AM - JosJuice

Seems to work fine on JITARM64 (apart from my phone being really slow). Only x64 is broken.

#2 - 02/26/2019 09:46 AM - JosJuice

- Subject changed from CSI: Hard Evidence does not boot when using JIT to CSI: Hard Evidence does not boot when using JIT

#3 - 02/26/2019 09:48 AM - JosJuice

Apparently JITARM64 hangs during the company logos, though. This is the behavior that the forum poster described happening before 4.0-2647, so it seems to be separate from the issue of not being able to boot at all.

#4 - 02/26/2019 10:06 AM - JosJuice

- Subject changed from CSI: Hard Evidence does not boot when using JIT to CSI: Hard Evidence does not boot when using x64 JIT

If either JIT LoadStore lXz Off or JIT LoadStore lwz Off is used, it works on x64. But it takes a while to boot, so keep an eye on the DVDInterface info log (or some other log you like) to check whether it has hanged.

#5 - 02/26/2019 10:43 AM - JosJuice

If I replace the condition here with false, it works:
https://github.com/dolphin-emu/dolphin/blob/6e9eb7c07c9661b1a3348f433f0d70c20fd9140d/Source/Core/Core/PowerPC/Jit64/Jit_LoadStore.cpp#L122

But I have no idea what this code is doing, so I don't think I can fix the problem on my own.

#6 - 02/26/2019 04:30 PM - flacs

That's idle skipping.

#7 - 04/16/2019 09:06 AM - degasus

Is this issue still valid with #7287 ? It is a new implementation of idle skipping.

#8 - 04/16/2019 11:44 AM - JosJuice

- Milestone set to Current

- Status changed from New to Fix pending

The game seems to be fully playable when using either of the JITs (x64 or AArch64) in the current version of PR 7287! Not only the x64 freeze on boot is fixed, but also the freeze during the prerendered movies that used to happen no matter what.

Unfortunately, it seems like cached interpreter hangs during the company logos. (It used to hang later, during the intro cinematic, but I guess it's the same underlying problem. And the difference might be due to a change unrelated to this PR.)

#9 - 04/22/2019 09:14 PM - JosJuice

- Fixed in set to 5.0-10039

- Status changed from Fix pending to Fixed