Emulator - Emulator Issues #9573

Savestates created while recording a Wii game don't save whole filesystem state

05/29/2016 07:45 AM - magumagu9

Status:	Work started	**% Done:**		0%
Priority:	Normal			
Assignee:	leoetlino			
Category:				
Target version:				
Operating system:	N/A	**Relates to performance:**		No
Issue type:	Bug	**Easy:**		No
Milestone:		**Relates to maintainability:**		No
Regression:	No	**Regression start:**		
Relates to usability:	No	**Fixed in:**		

Description

Basically, savestates save and restore "/tmp"... but never touch anything else, even when you're recording. Therefore, it's easy to cause a desync with a recording that loads a in-game save: if you try to continue from a savestate, the save data will be missing. Generally affects every Wii game which supports saves. Probably easy to fix.

Example of how to reproduce this, for completeness:

1. Start recording Twilight Princess Wii
2. Press A+B to start, click yes to the "create a new memory file" prompt, start a new file
3. Make a savestate
4. Press home, reset, then go through to the save screen; "create a new memory file" doesn't appear
5. Stop recording, save the recording.
6. Load the recording, and load the savestate.
7. Let recording play through to the save screen
8. Observe desync: the "create a new memory file" prompt appears

History

#1 - 05/29/2016 07:48 AM - Helios

- Status changed from New to Fix pending

Whoops

#2 - 05/29/2016 07:48 AM - phire

I think this is by design as dolphin also doesn't save the memory cards in the savestate for gamecube games.

The same reproduction steps can be used there.

Though, I'm unsure of the wisdom of this design decision

#3 - 05/29/2016 07:48 AM - phire

- Status changed from Fix pending to New

No it isn't. Read the bug report better

#4 - 05/29/2016 08:44 AM - magumagu9

The savestate code for GC memory cards special-cases movies; see
https://github.com/dolphin-emu/dolphin/blob/5e50c37c138e28821079c165b0cd72702ff9154f/Source/Core/Core/HW/EXI_DeviceMemoryCard.cpp#L5
10 and
https://github.com/dolphin-emu/dolphin/blob/5e50c37c138e28821079c165b0cd72702ff9154f/Source/Core/Core/HW/EXI_DeviceMemoryCard.cpp#L2
39 . It's a little tricky to set up because "Start Recording Input" puts you into the wrong mode by default. but it appears to work otherwise.

#5 - 05/29/2016 08:52 AM - JMC4789

Wii Games really don't work well at all with savestates. I've crashed Dolphin outright by having HID devices connected during a load-state.

I have a feeling savestates need to be completely rethought on Wii; simply loading a savestate for a game as you boot the game will usually crash the game, crash audio or crash Dolphin.

#6 - 08/09/2017 12:49 AM - JMC4789

- Status changed from New to Duplicate

#7 - 08/09/2017 12:49 AM - JMC4789

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

#8 - 08/09/2017 12:49 AM - JMC4789

I made a bigger issue for this.

#9 - 08/10/2017 09:12 AM - JosJuice

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

#10 - 08/10/2017 09:13 AM - JosJuice

- Status changed from Duplicate to New

#11 - 08/11/2017 09:49 AM - leoetlino

- Status changed from New to Accepted

In my opinion, savestates should save the whole state, including the NAND filesystem, but this would make states a bit larger... On the other hand, not including the NAND will cause various issues and inconsistencies.

#12 - 03/22/2018 03:07 PM - leoetlino

- Assignee set to leoetlino

- Status changed from Accepted to Work started

I have a WIP branch that saves the entire filesystem. I'll open a PR when it's ready