

Replay OOS Error

I discovered while testing this that all my bike replays, that have 32 drivers, most of them using a different bike, get an OOS error in this test patch. I'm stating this because I haven't seen this OOS error for years and I didn't see that in the 0.7D, or D41 either, even though I tested the latter one with 25 bikes. I'm almost certain its related to these test patches as it happens only when AI drivers are racing with different bikes.

This doesn't occur with normal cars, nor when I tested with 10 bikes. Which is a shame since that makes me unable to provide replays.

I've attached in that message my grid file in a .zip-file (since you cannot attach grid files themselves) where there are 32 AI's driving with bikes. It seems like you need to download all bike mods first before you load that grid file in-game.

Bikes with no ratings on top of ratings:

While testing these bikes, I happened to notice that at least two bikes (GP125 Turbo and Yamaha CT125 DR) can appear in first rows when you're sorting them by rating, even though those two bikes have no ratings whatsoever. You should be able to reproduce this, by downloading that mod, viewing "Rating/Stars" tab on garage and then click that "Mods" button again. I've attached three screenshots of this:

Name	Date	Rating	Weight	Power
CRUISER	29/8/23	★★★★★	285 kg	101 kW
GP125 TURBO	26/9/23	★★★★★	77 kg	49 kW
TREX BIKE	4/10/23	★★★★★	47 kg	19 kW
YAHAMA CT125 DR	4/10/23	★★★★★	115 kg	16 kW
SMISON_B51S	28/7/23	★★★★★	97 kg	4 kW
XINLIN 150	29/6/23	★★★★★	119 kg	19 kW
REAPER X1	9/7/23	★★★★★	185 kg	134 kW
CHIMERA X1	9/8/23	★★★★★	190 kg	160 kW
SZK 1300R	1/9/23	★★★★★	240 kg	129 kW
VELOSIPISTO	21/3/23	★★★★★	38 kg	17 kW



EXPERIENCES WITH THIS TEST PATCH:

“OK, here is another update for AI, Test Patch D42. You should find it a lot safer and better in the pit lane.”

Safer? Yes. Better? Well, it's better than what it was in the previous patch due to that pit stop box bug, but they still get stuck behind a stationary or slower object/vehicle in the whole pitlane area.

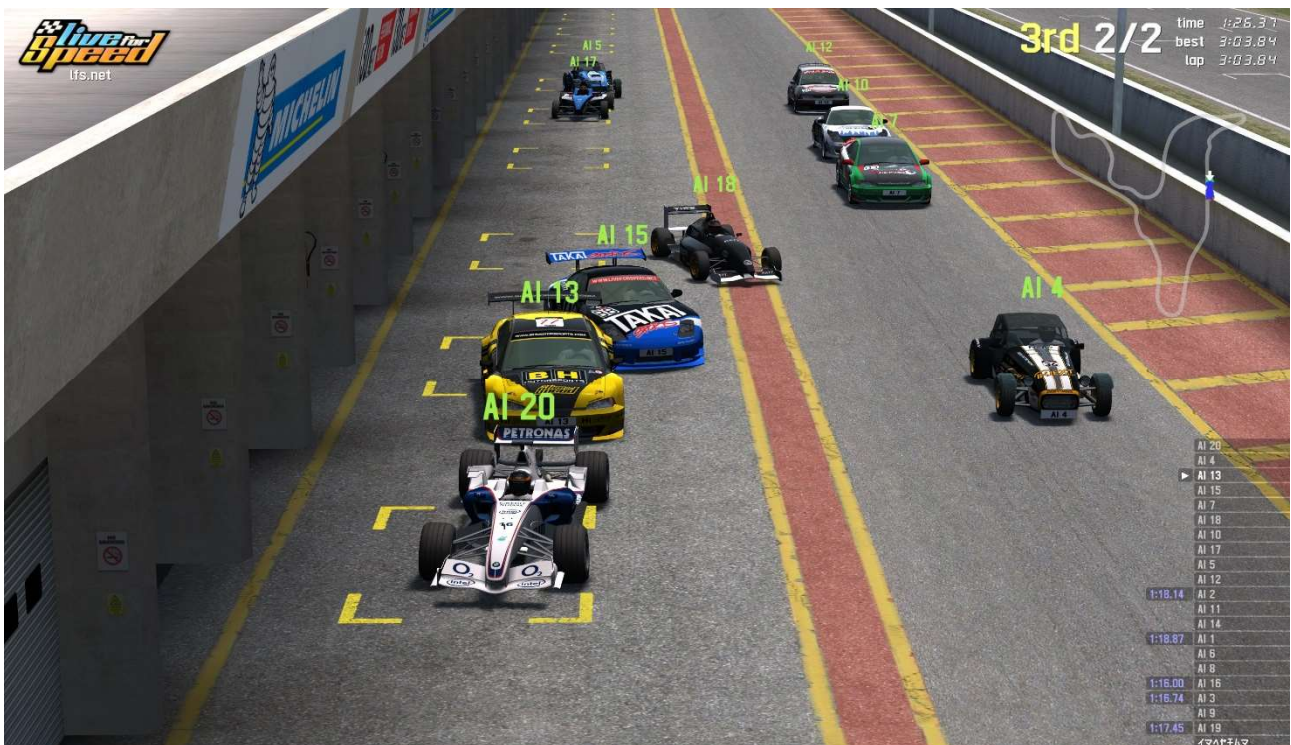
“Also overtakes from a lower speed are better judged (avoided if there is no chance to pass safely because there is not enough time to accelerate).”

I understand this avoiding at pitlane area when cars are moving slowly. My main concern to that second part of this update (avoiding) is that it also applies to **stationary objects/cars in there**, regardless of AI vehicle's own speed. This means that if AI driver is leaving a pit stop box after finishing pit stop and immediately ahead of them is another driver doing a pit stop, that AI driver behind it gets stuck and most likely stays there until that AI driver ahead finishes its own pit stop.

Below is a screenshot of a race where there were 20 AI drivers, each one driving a different standard LFS car. Here is a situation, where FXO GTR (FXR) and FZ50 GTR (FZR), have already finished their pit stop and are trying to leave their own pit stop box, but they can't, since BMW Sauber F1.06 (BF1), who is making a pit stop immediately in front of them.

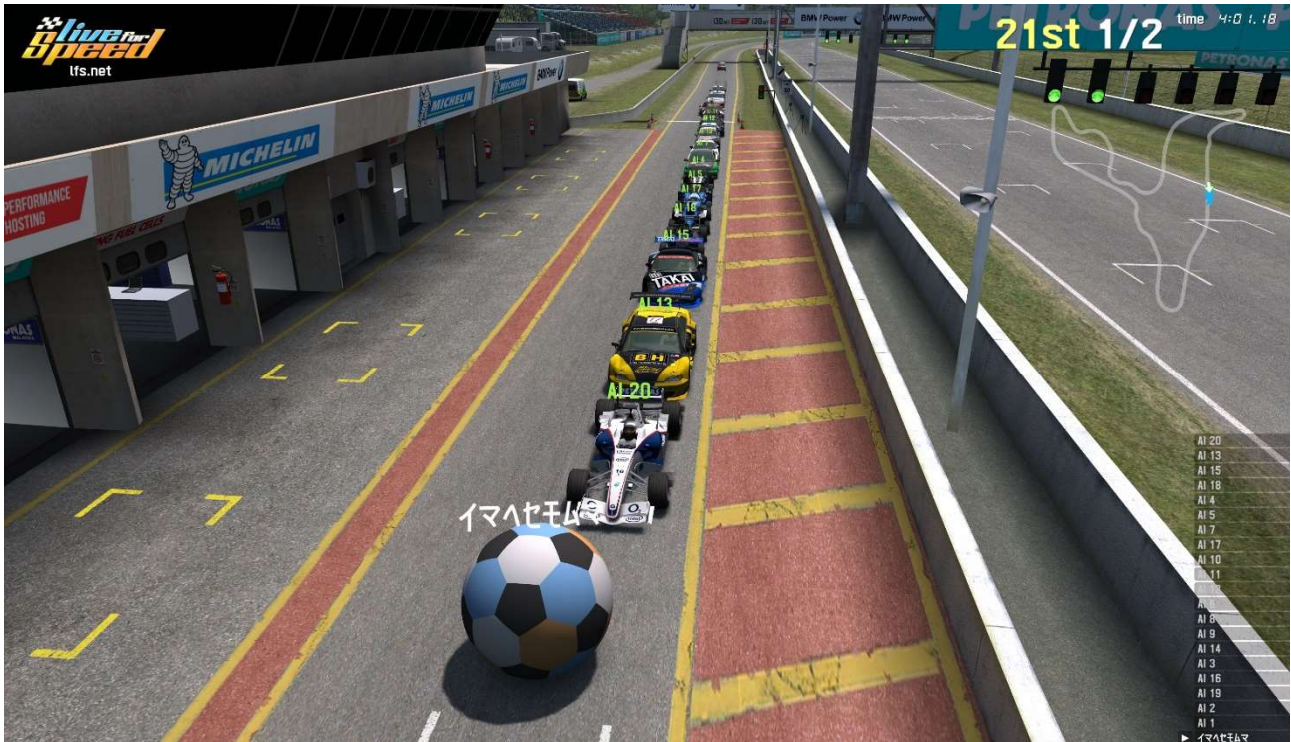
Even though that BF1 is, at that moment, stationary car, it is still effectively blocking FXR and FZR from leaving pit lane, meaning those latter two can only leave pit lane when BF1 finishes its own pit stop.

Behind them, same thing happens to LX6 who is stuck behind Formula BMW FB02 (FBM), who is still making its own pit stop.



I've attached a replay of this race. Reason, why I've attached a replay of this is because this same race had another issue in pitlane with AI still existing. I'm telling this on the next page.

So, in the same race: this issue happened in pitlane where I participated as a football. AI drivers got stuck behind it in that fast lane, even though it was clear that football can't move anywhere by its own.

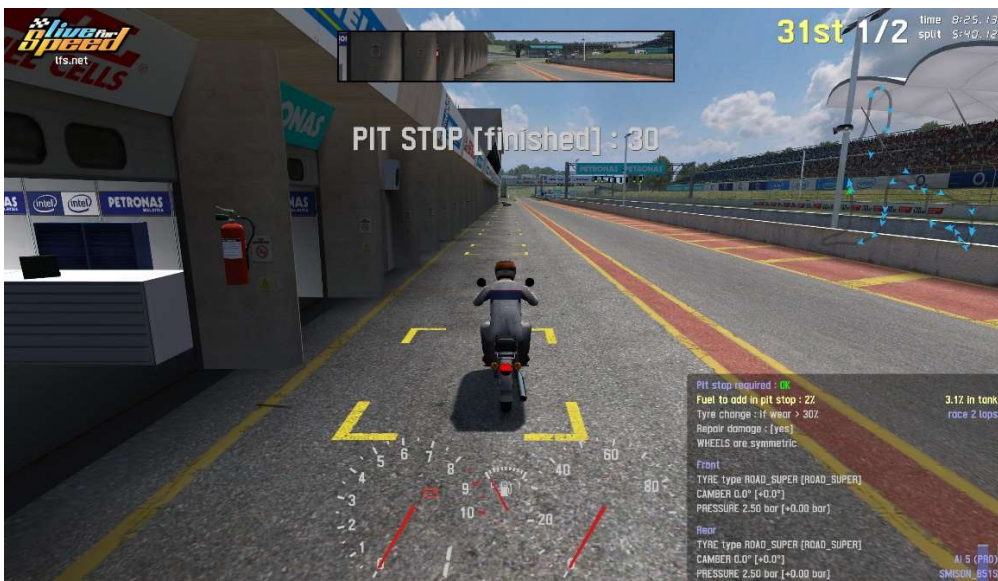


When I tested this with UF1000 and drove extremely slowly in pitlane on purpose, AI drivers were still behind me all the time and didn't want to overtake me.

“FIX: Slow start / stuck in pit stop if max torque at very low rpm”

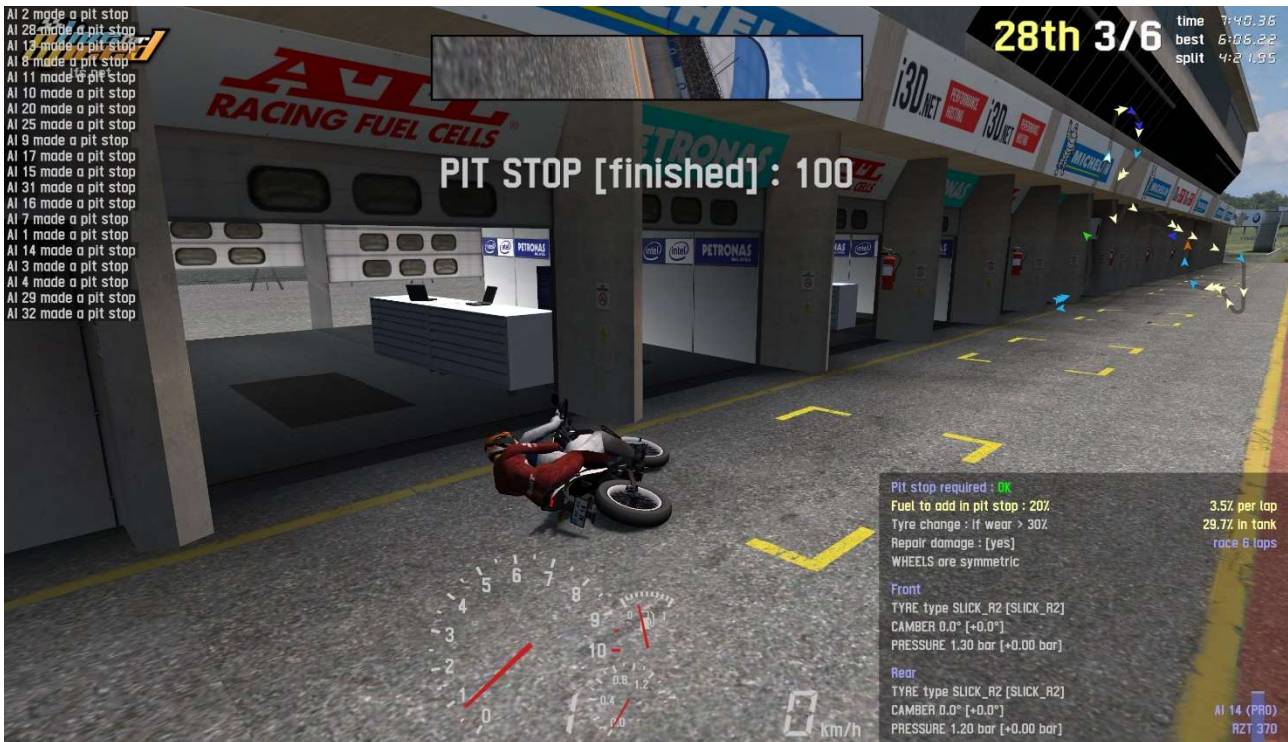
“Reset is now possible during a pit stop if the state is "finished"”

Unfortunately, these two updates don't apply to AI drivers. I tested it with 32 AI drivers having different bikes. That first issue happened to AI driver using bike "SMISON_B51S". Here's a screenshot:



It got stuck in pit stop and switched off its engine.

Also, AI drivers still don't want to reset their vehicles even if they've rolled/flipped when approaching a pit stop box and finish that pit stop box. Here's a screenshot of what happened to another AI driving "RZT 370":



However, I'm still saying that this resetting issue has been partially fixed, because now at least human players can reset their vehicles, if they've rolled/flipped and making a pit stop at the same time.

Also, one question: why it seems random/inconsistent that when AI drivers stall their vehicles, they sometimes do reset their vehicles (if it's allowed), but usually they don't?

For example, I tested with GTR's at Fern Bay RallyCross Green (FE6). I've attached a replay about this.

It's possible that AI drivers stall their engine when the vehicle they're using has a turbocharged inline engine. And this is what happens to one of the AI's immediately when race starts. For the rest of the race, that FXR just changes between gears 1, N and R, but since AI's cannot toggle their ignition on or understand **that they should reset when they've stalled**, that FXR stays there. However, when I did those test races with bikes, sometimes they could reset their vehicles after stalling. However, you can never do it consistently.

Other problems:

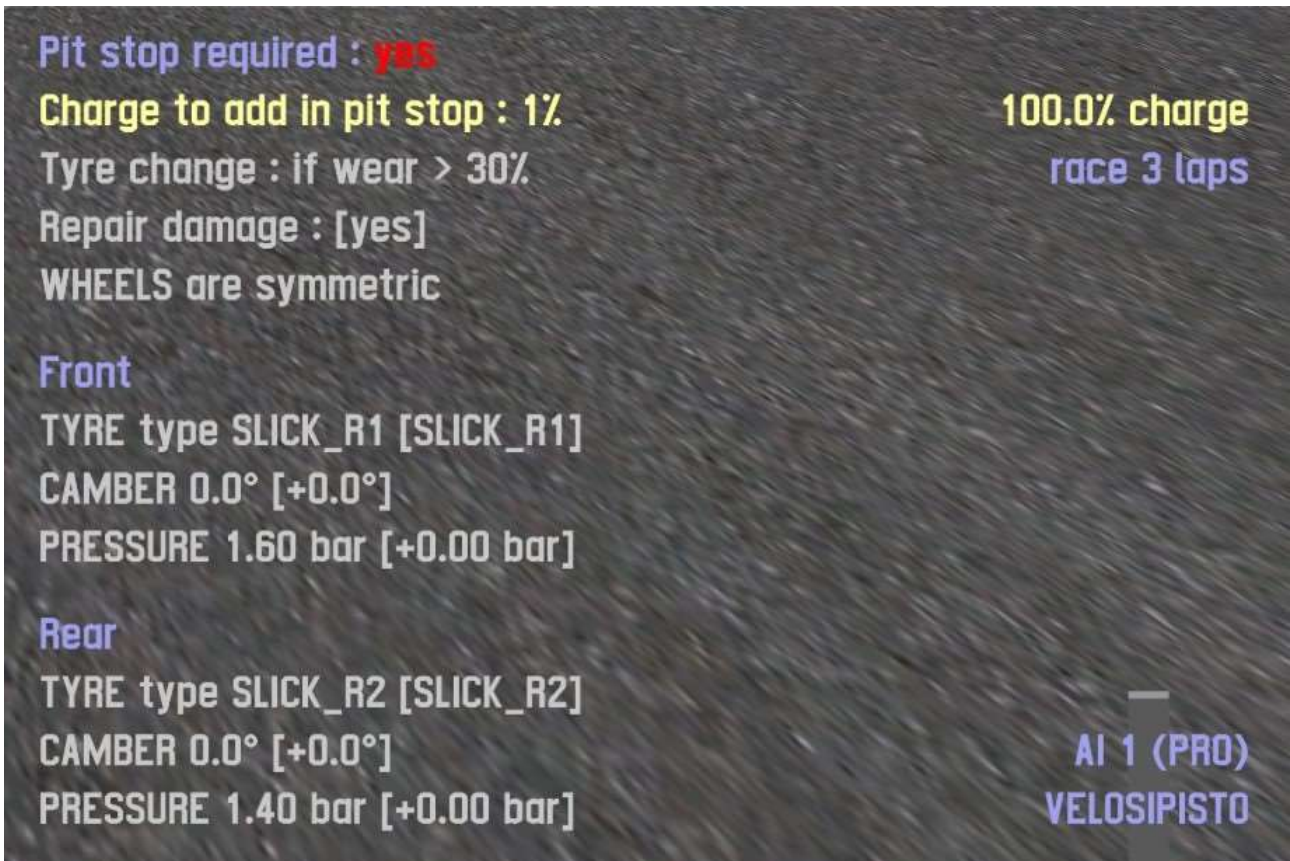
I encountered a bug on AS5. For some reason, even if there is a mandatory pit stop, this is what happens to AI driver cycling with "VELOSIPISTO" (to clear up that immediate confusion why there are two different names, it's because I restarted this race once – there was just one AI starting):



Now this is strange: this seems to only happen on Aston Grand Prix (AS5) and it seems like it only happens if you've allowed refuelling and have a mandatory pit stop enabled.

Only thing I can come up with is that when I first generated this AI path for this track, I had many other bikes having their AI path generated at the same time. Since it took a long time, my LFS wasn't always an active window. Perhaps when I opened LFS as an active window again and it took a little while to load, it caused this mod to have problems on this track. This bug doesn't seem to occur on any other tracks with this bike.

It somehow thinks on AS5, that it could do a 2-lap race with mandatory pit stop without any stops. And guess what? Unless I change it pit instructions, it only charges 1% during a pit stop on this track which almost inevitably causes it to run out of charge on that second lap. I'm saying almost, because I've attached a replay of five AI's with different skill levels racing with this bike. Below you can see this bike's F12-window.



I'm not sure but it seems like that wobbling certain AI drivers do after falling and resetting happens way more likely with AI drivers having either too low or too high skill level. When I did that test race on AS5, "PRO"-levelled AI crashed way more often. I've also attached a replay at Fern Bay Club (FE1), where a beginner levelled AI crashes and wobbles way more often. It also crashes with "XINLIN 150" bike and when the latter one resets, it just drives to other side of track and retires with no apparent reason.

Other fixes:

Now I'm taking a look at other fixes. I haven't been able to check out update "FIX: Auto shift *up* did not work if max power rpm above redline" properly, so I'm not addressing it this time. However, these other fixes:

"FIX: Errors in fuel calculation related to "Refuelling allowed""

Thank you! This seems to be fixed, at least the fuel calculation was same in qualifying sessions and on tracks which had no pit stop possibilities whether I had that "Refuelling allowed" setting on [Yes] or [No].

"FIX: Wrong info was shown in new F11/F12 display in Test Drive mode"
"FIX: Crash if /track command was used while generating AI path info"

These two issues are also fixed. Although I wouldn't recommend typing anything while its generating paths for AI drivers, as it slows down game a lot.

OTHER INFORMATION:

Basically, this is related to that /setlap bug which I mentioned in that Patch Test Forum (<https://www.lfs.net/forum/post/2060655#post2060655>).

Thankfully, this kind of bug should not happen when using almost every other command. I'm saying almost due to this: the only other command where it can even in theory happen is /cansiren. Why? Because /cansiren and /setlap are only two commands where user needs to type another parameter after typing username as a first parameter.

ATTACHMENTS:

Basic information about attachments:

First, I have attached a "D42_BikeTesting.rac" file. If you put it into your data/grids folder in your LFS folder, you can load that grid in-game, provided you have already downloaded lots of bike modes via "Garage". I'd recommend you download all bike mods first, it can also help you to reproduce that rating bug I mentioned, where some bikes with no ratings were among the highest rated bikes for some reason.

That grid has 32 AI drivers, each one driving a different bike. If you try to have some Single Player Races with them, you can easily reproduce that Replay OOS Error when you playback replays of those races.

I've attached a lot of SPR's in that LFS message. Basic information about these SPR's:

- All AI's use default setup, but it's still player's chosen setup – so they do use [default]/[hard track], but it's not setup which AI get when player selects [no] to a setting "AI use player setup : " in options. Only exception that some bikes have a passenger as well, to see does that bring any difference.
- AI drivers use have skill level "PRO" – if they don't, you can see F12-window to see their skill level.

Main purpose for each attached SPR:

Here you can see each replay I've attached and description of the main purpose of showing these.

- D42_AS4R_TestRace – here you can see the problems AI drivers are still having in pit lane.
- D42_AS5_TestRace_Bikes – here you can see that Replay OOS Error – this happened on every replay which had these 32 bikes racing. You can also briefly see some AI's having problems with certain bikes.
- D42_AS5_VelosipistoTest – here you can see the bug mod "VELOSIPISTO" is having. I had 5 AI's, each having different skill level, and look what happens to them in the second lap. Also, PRO-skilled AI seems to have a lot of trouble with this track. And I didn't change their Pit Instructions / F12 window for any of them at any point!
- D42_FE1_TestRace_Bikes – here you can see that one AI which is BEGINNER-skilled falling way more often compared to others. You can also see that weird retirement one AI is having.
- D42_FE6_TestRace – here I'm showcasing the stalling problem with AI's. If they stall their engine, usually they never reset their vehicle or ignite that engine.