

Kerbal Space Program - Bug #522

Rover wheels and terrain collision issues

04/05/2013 09:10 AM - szdarkhack

Status:	Moot	Start date:	04/05/2013
Severity:	Normal	% Done:	0%
Assignee:			
Category:	Physics		
Target version:			
Version:	0.19.1	Language:	English (US)
Platform:	Linux, OSX, Windows	Mod Related:	No
Expansion:			

Description

There appears to be an issue with the collision between (at least the small) rover wheels and the terrain. As a rover moves along, there are times when the wheels will suddenly and inexplicably jump as if they hit a wall. The issue happens quite often on inclined terrain, and mostly results in (possibly irreparable) damage, making roving for any appreciable distance rather impossible without constant quick saves.

Moreover, there are occasions when a rover bounces on its wheels (primarily when the bounce happens on a very acute angle between the ground and the wheels) that it will bounce **much** more violently than it should, launching it into the air and, again, almost always resulting to severe damage.

Steps to reproduce the 1st issue:

1. Get a rover on inclined terrain (the Mun is a good place to test).
2. Start moving straight at a reasonable speed (~5m/s).
3. Wait. It usually happens within a minute or two at most.

Reproducing the 2nd issue is harder, but it might occur during testing of the 1st issue if the rover hits the ground almost on its side.

Notes:

1. I have observed this with the small wheels, I'm not sure about the medium and large ones.
2. My terrain detail is set to Low.
3. It doesn't appear to happen in flat terrain, so that might be a clue for the cause.

History

#1 - 04/05/2013 12:36 PM - SPACETECH

I had the same Problem.

After changing the terrain detail to normal this error no longer occurs. Before i had terrain level at low quality. Terrain shaders and scatters are now disabled too.

#2 - 04/05/2013 02:21 PM - szdarkhack

Hmmm, default terrain detail does indeed seem to fix it. Unfortunately, it also kills my framerate on any planet with an ocean, while it makes almost no difference in performance on planets that don't. Oceans have been known to kill performance for some time now, so i had set my terrain to low to get a playable framerate on Kerbin. Now that i actually need Default for the rovers, though, i modified the config settings for all the oceans to be the same as on Low (similar to the old water fix). It works pretty well, the rovers move fine, the framerate is fine and the water seems to be ok, or at least ok enough for me (i don't build boats or anything).

I still think it's weird though, my understanding was that the terrain detail just altered the terrain vertex density, i don't get how that can mess with physics this badly. Then again, the game is in alpha so some weirdness is to be expected i suppose. It still is an issue, however. Even though i found a fix, it's a "hacky" fix. There might be a better/permanent way to solve this on the developers' side of things.

#3 - 11/03/2013 07:13 AM - Norgg

I've had the same issue. I then tried out normal detail, which was better but reduced my framerate too much. It also resumed with my rover floating in the air. When I tried returning to low detail, my rover has ended up stuck underground.

#4 - 07/17/2016 09:23 AM - TriggerAu

- Status changed from New to Needs Clarification

#5 - 07/17/2016 08:58 PM - Claw

- *Status changed from Needs Clarification to Moot*
- *% Done changed from 0 to 100*
- *Platform Linux, OSX, Windows added*
- *Platform deleted (Any)*

Wheels rework seems to have fixed this particular issue.