

Kerbal Space Program - Bug #3996

Physics Warp weakens friction and springs

01/29/2015 03:21 PM - Leibniz

Status:	Closed	Start date:	01/29/2015
Severity:	Low	% Done:	100%
Assignee:			
Category:	Physics		
Target version:			
Version:	0.90	Language:	English (US)
Platform:	Win32	Mod Related:	No
Expansion:			

Description

I have noticed that physics warp weakens the forces from friction and springs relative to gravity. It is most noticeable when everything is static and all the forces ought to balance.

Example 1: Take a stock Aeris 4A and park it on the sloping side of the runway. Engage the parking brake, wait for everything to settle and then physics warp - the plane will start to slide downhill. I got 0.5 m/s at x2, 1 m/s at x3.

Example 2: Build and launch the following from the VAB: Stayputnik at the top, X200-32, docked pair of Clamp-O-Trons, another X200-32. Wait for it to settle and then physics warp - the upper Clamp-O-Tron will sink into the lower one.

<http://imgur.com/a/NQQqa>

I have had these effects in other situations and in earlier versions of KSP. One time my Kerbal got out of his rover to get a photo of a Mun Arch - he used physics warp to walk there faster but was overtaken by the parked rover. I suspect that "flapping wings" on a plane are related to the second example.

The two examples are static, so physics step size shouldn't be an issue (at x1 the net force is zero; at x2 the net force should be zero for 2 time units). So is this a bug, or is it a deliberate change to prevent explosions during physics warp? I would like to have parking brakes that work.

History

#1 - 07/17/2016 09:27 AM - TriggerAu

- Status changed from New to Needs Clarification

#2 - 08/09/2016 11:30 AM - TriggerAu

- Status changed from Needs Clarification to Closed

- % Done changed from 0 to 100

Closing this report out for now. If you find it is still occurring in the latest version of KSP please open a new report (and this one can be linked to it.) For best results, the wiki contains really useful info for when creating a report <http://bugs.kerbalspaceprogram.com/projects/ksp/wiki>.

You can also ask questions about the bug cleanup in the forum here:

<http://forum.kerbalspaceprogram.com/index.php?/topic/143980-time-to-clean-up-the-bug-tracker/> and tag @TriggerAu to get my attention