

Kerbal Space Program - Bug #26926

Orbital data of separated stage becomes corrupted if root part is physicsless.

12/25/2020 05:20 AM - freebirth_toad

Status:	Ready to Test	Start date:	12/25/2020
Severity:	Low	% Done:	80%
Assignee:	victorr		
Category:	Staging		
Target version:	1.12.0		
Version:	1.11.0	Language:	English (US)
Platform:	Linux	Mod Related:	No
Expansion:	Breaking Ground, Core Game, Making History		

Description

I'm not sure if I'm running the 32-bit or 64-bit version. It's a 64-bit system (Ubuntu 20, Focal), but it's the version of KSP from Steam: "1.11.0.3045 (LinuxPlayer) en-us".

The attached craft file demonstrates the bug. For clearest demonstration, cheat it into orbit, fire the only stage, and then switch the other craft created by the staging. If you look at the Detailed Orbital Info, it will be switching back and forth quickly to some numbers and 'Nan' values.

A very small amount of experimentation on my part indicates this happens whenever the root part (of the new craft created by staging) is physicsless. I read somewhere (the wiki?) that when physicsless parts become the root part, their physics are turned on. This bug seems to be an instance of that not happening here, or a malfunction of the mechanism that computes the orbital parameters when it does happen.

History

#1 - 01/05/2021 03:09 PM - victorr

- Status changed from New to Investigating
- Assignee set to victorr
- % Done changed from 0 to 20

#3 - 01/05/2021 03:33 PM - slavic

Is this related:

<https://forum.kerbalspaceprogram.com/index.php?topic/199326-decoupledundocked-satellite-disappears-or-is-moved-to-a-pole-and-falls/#comment-3904026> ?

#4 - 01/23/2021 10:35 PM - Anonymous

I can confirm the bug on Windows

Making the root part something other than the cubic strut (or octagonal strut, or any other small physics-less part) avoids the problem.

#5 - 02/04/2021 10:44 PM - freebirth_toad

slavic wrote:

Is this related:

<https://forum.kerbalspaceprogram.com/index.php?topic/199326-decoupledundocked-satellite-disappears-or-is-moved-to-a-pole-and-falls/#comment-3904026> ?

I'm not sure, but the behavior demonstrated in the video provided in [#26971](#) is exactly what I experienced, so I believe that this is the same issue as that one. His note that when he builds the exact same craft in the VAB, the problem disappears is also what I experienced. Creating the craft via staging seems to be bypassing some check that occurs otherwise.

#6 - 03/11/2021 06:34 PM - MisterDoctor

Was going to post a new issue about decouplers next to octagonal struts, but this seems to be the same thing. A small setup consisting of TS-06 Stack Separator (root), Octagonal Strut, and any CPU (eg OKTO2) will result in the separated section becoming completely physics frozen, presumably because the octagonal strut has become the new root when the old root was discarded.

#7 - 03/11/2021 07:15 PM - MisterDoctor

(temporarily) deleting PhysicsSignificance = 1 from strutOcto.cfg has fixed the issue for me. Other parts that can cause this are Cubic Octagonal Strut and also FL-A5 Adapter.

#8 - 06/24/2021 10:28 PM - victorr

- Status changed from Investigating to Ready to Test

- Target version set to 1.12.0

- % Done changed from 20 to 80

We have made some changes in this last 1.12.0 release and would like some feedback on this issue. Thanks.

Files

separator_bug_demo.zip	1.87 KB	12/25/2020	freebirth_toad
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