

Kerbal Space Program - Bug #9717

Ship auto explodes at 6km. (large parts ship!) (craft file corruption issue)

05/11/2016 10:45 PM - Arugela

Status:	Closed	Start date:	05/11/2016
Severity:	Normal	% Done:	100%
Assignee:			
Category:	Physics		
Target version:			
Version:	1.1.2	Language:	English (US)
Platform:	Linux, Windows	Mod Related:	No
Expansion:			

Description

To reproduce simply launch the ship and fly straight up to 6km. It should blow up at exactly 6k. The portraits all go to static like at launch and the ship and environment almost load like they were just put on the runway again. This occurs 99% percent of the time for me. It simply rips itself apart. Like the link between all parts in the ship simply broke down. Someone mentioned double free error as a possibility.

I'll give the smaller version of the ship(2567 parts). It should take about 15 minutes to reach 6km. This ship seems to bring this issue out. I seem to get one lucky launch from the runway and one from the launchpad at a random interval and it never works again.

Also, after this bug occurs anything put on the runway also breaks apart instantly on the runway on load until you restart the game(or as much as I have tested which seems to be everything). Another interesting and consistent part of the bug.

There was also another aspect this brought out once for me that I encountered once in 1.04 or 1.05 that I noted in a thread once as my favorite bug. If you leave the game in map mode when the ship goes over the 6km mark it will make the ship explode while you are looking at the zoomed out map mode looking at kerbin. Or it did for me on one occasion. It might be related.

Sorry for a lack of video on this. I don't have the means to make one or it might make this a bit easier given the parts count. Get someone with a good computer to do it. The performance is drastically better since pre 1.1 though! The craft load time is a little slow though. It will black the screen and take several minutes to load.

Stats:

KSP v1.1.2.1260 64bit

Fedora 22 (unsure of kernel. latest I think. Problem spans updates so far.)

Phenom II 1100t

560ti Fermi 1gb (361.28 driver)

8gigs 1600 ram

SSD

Playerlog:

Player log with the most recent explosions has been uploaded via the upload tool as an attachment.

Craft:

[[https://www.dropbox.com/s/3juoopeyuk2ny8m/The%20Orion%20V4%201_1_2%20v2.craft?dl=0]] <- file to large for upload!

Pic:

[[http://i1262.photobucket.com/albums/ii613/PicsMe101/KSP/snapshot9_zpsglbtj3qe.png]]

Thread:

[[
<http://forum.kerbalspaceprogram.com/index.php?/topic/138905-the-orion-and-the-kraken-6000m-auto-explosion/#comment-2574702>
]]

History

#1 - 05/11/2016 11:54 PM - Arugela

I may have set the priority too high. It should probably be Normal or High. This does not affect the default ship. I'm not certain what part could be needed to cause this outside of this ship. I'm also not sure if it happens for other people as it's hard to find people to test this.

#2 - 05/12/2016 12:36 AM - Arugela

Here is a different ship file with some instruction on how to fly it. (located in the ships description in the VAB etc.

Instructions:

To reproduce bug:

1. After loading turn on RCS and SAS.
2. If desired hit Abort to empty ore tanks.
3. Hit 1,2,3 to turn on main engines and max out throttle to take off.
4. Wait to hit altitude and see the ship explode.

The F3 log may or may not exist.

File:

[[https://www.dropbox.com/s/tpfqfj8d87w6uht/The%20Orion%20V4%201_1_2%20v2%20Bug%20version.craft?dl=0]] <- Same craft as in the previous entry but with the above text in the description. I forgot that this version does not have the hotkey in the description like I normally put in this vessel.

#3 - 05/12/2016 12:42 AM - smjjames

- Severity changed from Critical to Normal

Just to check, are you able to reproduce without mods?

Also, could you send the full (you know, the original size) craft? I've used 4k+ part ships on this comp before in pre-release (and more recently), so, I'm pretty sure I can handle it. :)

edit: Gonna start checking this out though. edit2: I'll also grab the two from the forum post.

#4 - 05/12/2016 01:02 AM - Arugela

[[[https://www.dropbox.com/s/5ice9vzf2bim71w/The Orion V4 1_1_2 v2 boosters.craft?dl=0](https://www.dropbox.com/s/5ice9vzf2bim71w/The%20Orion%20V4%201_1_2%20v2%20boosters.craft?dl=0)]] <- boosted version (3213 parts) though it oddly gets an extra part according to the map view compared to the VAB/SPH. I think all other versions of this ship do also.

This is an unmodded ship in a fresh install. the only thing I did after the fresh install was import the save file because I have things in it I like to keep. Like an old version of this ship landed on minmus. There are only 13 flights or so in the whole save. And I only kept the ships I needed for testing this basically.

Edit: to fly the boosted version above. Don't turn on the 1,2,3 engines. Just use spacebare to activate the booster sections. If you use the engines(except maybe 2, which is insufficient to help regardless.) it will blow itself up with heat damage.

#5 - 05/12/2016 01:14 AM - smjjames

Arugela wrote:

[[[https://www.dropbox.com/s/5ice9vzf2bim71w/The Orion V4 1_1_2 v2 boosters.craft?dl=0](https://www.dropbox.com/s/5ice9vzf2bim71w/The%20Orion%20V4%201_1_2%20v2%20boosters.craft?dl=0)]] <- boosted version (3213 parts) though it oddly gets an extra part according to the map view compared to the VAB/SPH. I think all other versions of this ship do also.

This is an unmodded ship in a fresh install. the only thing I did after the fresh install was import the save file because I have things in it I like to keep. Like an old version of this ship landed on minmus. There are only 13 flights or so in the whole save. And I only kept the ships I needed for testing this basically.

Edit: to fly the boosted version above. Don't turn on the 1,2,3 engines. Just use spacebare to activate the booster sections. If you use the engines(except maybe 2, which is insufficient to help regardless.) it will blow itself up with heat damage.

Noted and got the craft. Checking out the V3 one with boosters atm. I notice that you've clipped things pretty heavily, which could be a cause, but if it holds on launch, it shouldn't explode in flight, right?

edit: wait, how do I launch the v3 one with boosters? I didn't see instructions for that one **checks back** edit2: Oh I see, it's the same as the one you posted above. Or rather the one further up, but I've got it.

#6 - 05/12/2016 01:37 AM - smjjames

- Status changed from New to Confirmed

- % Done changed from 0 to 10

- Platform Windows added

Confirmed with the V3 boosted one. Going to try and see if it has anything to do with the sound barrier. edit: Thwarted by the ship keeping exploding on launch.

#7 - 05/12/2016 01:53 AM - Arugela

To stop the explosions on runway restart the game and it should stop.

Could you test if other ships blow up on the runway after this. I think I tested it but I forget for certain if everything else does too. I wanted to recheck that. (I'll be doing the same in a few minutes when my ship explodes again.)

Edit: I finally got an F3 log on the explosion. It starts with structural linkage from the Radiator panel large I mentioned in the thread. The part I can't remove without the file becoming corrupt after saving and reloading the ship in the VAB. Maybe it is related afterall.

Post:

[[
<http://forum.kerbalspaceprogram.com/index.php?/topic/138905-the-orion-and-the-kraken-6000m-auto-explosion/&do=findComment&comment=2576393>]]

I'm reverting back to the VAB and loading and launching a different vessel to see if it also explodes on the runway before restarting the game.

Revert to VAB from launch after bug and relaunch same ship: Explodes again.

Revert to VAB from launch after but and relaunch different(stock) ship: *Does not explode!

***I'm starting to think this has to do with that part in the other thread. there are two Large radiator panels on the nose of the ship. One or both of them removed from the ship/saved/ then reloaded will permanently corrupt the .craft file as per the other thread. This is the first part that explodes. I wonder if it is causing the issue somehow.

[[<http://forum.kerbalspaceprogram.com/index.php?/topic/139421-ye-olde-file-corruption-issue/#comment-2573577>]]

If looking for this use the V4 craft. The version 3 craft is it one of the top radiator panels below the neck of the ship, but it will be hard to find. In the V4 one I only have it and one copy of it directly behind the drills attached to the bottoms of the MK3 cockpits at the front of the ship. Those parts are corrupted or something.

#8 - 05/12/2016 02:02 AM - smjjames

- File KSP.log added

- File output_log.zip added

Arugela wrote:

To stop the explosions on runway restart the game and it should stop.

Could you test if other ships blow up on the runway after this. I think I tested it but I forget for certain if everything else does too. I wanted to recheck that. (I'll be doing the same in a few minutes when my ship explodes again.)

Edit: I finally got an F3 log on the explosion. It starts with structural linkage from the Radiator panel large I mentioned in the thread. The part I can't remove without the file becoming corrupt after saving and reloading the ship in the VAB. Maybe it is related afterall.

Post:

[[
<http://forum.kerbalspaceprogram.com/index.php?/topic/138905-the-orion-and-the-kraken-6000m-auto-explosion/&do=findComment&comment=2576393>]]

I'm reverting back to the VAB and loading and launching a different vessel to see if it also explodes on the runway.

Uploading the logs from that instance of it.

Regarding the radiator thing, in the first try, I noticed that the first thing to go was 'radia..' something, but I thought it was radial something as it was obscured by me having the debug screen partially offscreen. Also, after those two launch explosions, I tried a stock vessel on the pad (which was fine), and then tried the v4 bugged one thinking that maybe it won't explode.

I'll check the runway the next time I hit that bug.

#9 - 05/12/2016 02:12 AM - Arugela

That was a typo. I meant launchpad on that occasion. I intermix those words occasionally.

#10 - 05/12/2016 02:22 AM - smjjames

Currently trying some things. Even turning on unbreakable joints doesn't stop it from exploding on launch.

#11 - 05/12/2016 02:27 AM - smjjames

- File screenshot19.png added
- File screenshot20.png added

Tried re-launching it with hacked gravity, no crash damage, and unbreakable joints and got kraken attacked horribly. Edit: Output log is in excess of 150mb, and KSP is laggy as all hell. Going to spare everybody the horror of that one.....

#12 - 05/12/2016 04:44 AM - smjjames

- File screenshot25.png added
- File KSP.log added
- File output_log (2).zip added
- File output_log (3).zip added
- Subject changed from Ship auto explodes at 6km. (large parts ship!) to Ship auto explodes at 6km. (large parts ship!) (craft file corruption issue)

Theres also some other part that, when removed, causes KSP to spaz out on launch. I'm currently trying to investigate that. Though I'll finish that in the morning. Also, had to force quit KSP because it stopped responding.

The missing parts in the screenshot is normal because I did remove them myself in the editor.

#13 - 05/12/2016 10:31 PM - Arugela

https://www.dropbox.com/s/zqnhw250iiqhm/Orion V4 1_1_2 v2 ParttestRedGreen.craft?dl=0

The remnants of the Orion v4 1.1.2 v2 vessel. It is down to just the offending radiator panel and two other parts. It demonstrates something the part is doing by taking the adapter part on and off. If the radiator is removed and the file saved and reloaded the file will again be corrupt!

The pics are in the forum thread about it. I can't seem to get the pics to load in this one.

[[
<http://forum.kerbalspaceprogram.com/index.php?topic/138905-the-orion-and-the-kraken-6000m-auto-explosion/&do=findComment&comment=2577826>]]

#14 - 05/12/2016 11:17 PM - smjjames

- File output_log.txt added
- File KSP.log added
- File flight capable reduced orion.craft added
- File screenshot27.png added
- File screenshot28.png added
- File screenshot29.png added

I tested with a slightly modified flight capable version of that reduced craft (just a MK3 rocket fuel short tank, mammoth engine, and some BigS fins. Plus infinite fuel on) and the explosion is reproducible here. However, it seems to now be a 'collides into <building>' thing.

Other things I found:

With this one, when I revert to launch, the rocket below the command pod vanishes, no exceptions though.

After the explosion, I've noticed that sometimes a strange floating bar appears. It probably depends on the pod and the radiator surviving though. Also, it seems to have given me a huge kick with the one in the screenshot, not sure.

#15 - 05/13/2016 04:38 AM - Arugela

Solution found:

- 1.Find the offending part
- 2.use a text editor to find all references to the part(this would be the entire Part<> and all link references. Link references would likely be in the Part<> of the mother part.
- 3.Save file.

Note: on the smaller ship at some point gained a double link reference on the mother part to the same part. I'm not sure how this occurs but this showed that the part reference was screwing up on any attempt to remove it. I believe claw was referring to this in the main thread. After realizing that the mother part also had references to the part I removed them along with the part<> entry itself.(I was previously unaware of the link reference on the part it was attached and had attempted to only remove the Part<> section of the part causing the error to persist even after attempting to remove it simply via editing the file.) The issue now seems to be resolved.

Finalcraft:

#16 - 05/13/2016 01:43 PM - smjjames

- Status changed from *Confirmed* to *Resolved*

- % Done changed from 10 to 100

I'll mark as resolved then. :)

#17 - 07/17/2016 09:20 AM - TriggerAu

- Status changed from *Resolved* to *Closed*

Files

NewPlayer.log	818 KB	05/11/2016	Arugela
KSP.log	2.55 MB	05/12/2016	smjjames
output_log.zip	205 KB	05/12/2016	smjjames
screenshot19.png	1.3 MB	05/12/2016	smjjames
screenshot20.png	1.3 MB	05/12/2016	smjjames
screenshot25.png	220 KB	05/12/2016	smjjames
KSP.log	3.56 MB	05/12/2016	smjjames
output_log (2).zip	84.9 KB	05/12/2016	smjjames
output_log (3).zip	110 KB	05/12/2016	smjjames
output_log.txt	1.31 MB	05/12/2016	smjjames
KSP.log	587 KB	05/12/2016	smjjames
flight capable reduced orion.craft	25.9 KB	05/12/2016	smjjames
screenshot27.png	835 KB	05/12/2016	smjjames
screenshot28.png	841 KB	05/12/2016	smjjames
screenshot29.png	643 KB	05/12/2016	smjjames