

## Kerbal Space Program - Bug #9341

### Settings broken in Linux build

04/20/2016 06:44 AM - Aristaeus

<b>Status:</b>	Closed	<b>Start date:</b>	04/20/2016
<b>Severity:</b>	High	<b>% Done:</b>	100%
<b>Assignee:</b>			
<b>Category:</b>	Application		
<b>Target version:</b>	1.2.0		
<b>Version:</b>	1.1.1	<b>Language:</b>	English (US)
<b>Platform:</b>	Linux	<b>Mod Related:</b>	No
<b>Expansion:</b>			
<b>Description</b>			
<p>When you open the settings they're completely blank. As you can see in the screenshot, there are no settings to change :(. I'm running Kubuntu on a laptop with a fairly ordinary Intel graphics chip - around 4000 iirc. The issue isn't exclusive to me; <a href="https://www.reddit.com/r/KerbalSpaceProgram/comments/4fjb3v/kerbal_space_program_update_11_turbo_charged_is/d29eutd">https://www.reddit.com/r/KerbalSpaceProgram/comments/4fjb3v/kerbal_space_program_update_11_turbo_charged_is/d29eutd</a></p> <p>Ok, as I'm writing this more issues are appearing. The load save dialogue is broken in the same way; no text appears. However, I can click where the first save should be and select it, and it loads properly. I've attached screenshots - you can see in the second one the load button isn't shaded out.</p> <p>Moving on to the VAB, most of the useful parts of the GUI are broken. Part tabs, the engineer's report, and parts of the item mouseover GUI are all invisible. The lines on the ground are also flickery, but that's not gamebreaking.</p> <p>The flight GUI isn't much better. As you can see in the screenshot, there's bits missing everywhere. However, if you know where the buttons are you can still click them just fine.</p> <p>I haven't played the earlier prerelease builds so I don't know if this is a new issue, but I suspect it's been around since the UI overhaul. Let me know if there's anything else I can do to help, and good luck.</p>			
<b>Related issues:</b>			
Related to Kerbal Space Program - Bug #9443: Some menus don't have entries			<b>Duplicate</b> <b>04/23/2016</b>

### History

#### #1 - 04/20/2016 07:41 AM - Lysius

Also reported as 1.1prerelease Bug #7493

#### #2 - 04/20/2016 07:52 AM - Aristaeus

Lysius wrote:

Also reported as 1.1prerelease Bug #7493

Oh, sorry. I looked to see if it was already reported, but apparently I didn't look hard enough. Feel free to delete this.

#### #4 - 04/21/2016 11:24 AM - sal\_vager

- Category changed from 295 to 368

- Severity changed from Critical to High

Aristaeus, try running KSP with the -force-glcore command line argument, this is a Unity engine argument that forces Unity to detect and use the best OpenGL version on the system.

<https://docs.unity3d.com/Manual/CommandLineArguments.html>

#### #5 - 04/21/2016 11:52 AM - sal\_vager

- Status changed from New to Need More Info

#### #6 - 04/23/2016 05:37 AM - Aristaeus

sal\_vager wrote:

Aristaeus, try running KSP with the `-force-glcore` command line argument, this is a Unity engine argument that forces Unity to detect and use the best OpenGL version on the system.

<https://docs.unity3d.com/Manual/CommandLineArguments.html>

It's working! Thanks a lot!

#### #7 - 04/24/2016 10:02 AM - Jajcus

For me, using the `'-force-glcore'` option causes startup crashes: <http://bugs.kerbalspaceprogram.com/issues/9461>  
'`-force-glcore33`' works better (no crash), provided I disable shadows in settings.

#### #8 - 04/24/2016 01:46 PM - kilobug

I've the same issue on my Debian Sid, using GOG's version of KSP, with radeonsi driver on R9 380X.

Using `-force-glcore` makes the game crash, but the game works (and the settings bug is fixed) with `-force-glcore33` or `-force-glcore40`. Oddly with `-force-glcore41` (the last official supported OpenGL version on stable Mesa for radeonsi) the whole game screen is entirely black (apart from mouse cursor).

I'll try `-force-glcore42/-force-glcore43` with latest git Mesa (which has support for OpenGL 4.3 on radeonsi) later on.

#### #9 - 04/24/2016 04:44 PM - sal\_vager

Thanks for the info guys.

kilobug please keep us updated.

#### #10 - 04/28/2016 11:59 PM - Ruedii

I've been looking at other bug reports, and it affects all users using Mesa 11.x series as far as I can tell.

This is pretty much anyone using Linux except those using `fglrx` (who experience other issues) and people using the NVidia proprietary drivers, who have no issues that I know of.

This bug is likely upstream in Unity and makes me question Unity's QA department if a huge chunk of the UI code fails on the driver that ships with most Linux distros. It's as if they only tested it on nVidia proprietary drivers.

#### #11 - 04/29/2016 06:24 PM - kilobug

So I did a few more tests (Debian Sid, Radeon r9 380X).

Using stable mesa (11.2.1) from Debian Sid (which officially supports OpenGL 4.1) :

- using no option or `-force-glcore31` gets the bug as described : various menus (options, load, ...) are empty ;
- using `-force-glcore` or `-force-glcore42` gets a segfault ;
- using `-force-glcore32` to `-force-glcore41` leads (apparently randomly) to one of the two outcomes : 1. everything works nicely 2. the whole screen is black except for the mouse pointer.

Using git mesa (from oibaf's ppa) (which officially supports OpenGL 4.3, but only with LLVM 3.9, which I don't have) :

- using no option or `-force-glcore31` gets the bug as described : various menus (options, load, ...) are empty ;
- using `-force-glcore` gets a segfault ;
- using `-force-glcore42` with `MESA_GL_VERSION_OVERRIDE=4.2` set too (to force attempting to use GL4.2 despite missing llvm) works fine ;
- using `-force-glcore32` to `-force-glcore41` works fine.

I'll try to make some tests with LLVM 3.9 later on.

So at least some improvement with latest git, hopefully when we'll have Mesa 12.0 with LLVM 3.9 stable in a couple of months it'll work great with stable software.

For now, the best solution is to use Git Mesa (with oibaf's ppa it's pretty easy on a Debian-based distro) and `-force-glcore41` switch (for radeonsi cards).

#### #12 - 04/30/2016 12:07 AM - Ruedii

- Version changed from 1.1.0 to 1.1.1

Well, I've tried with Mesa 11.3 Git and LLVM 3.9, and it's still no-go.  
Also, have updated to 1.1.1

I will look at both methods mentioned above (manually setting shadows to zero then changing them back, as that likely makes other changes, and forcing the OpenGL version.)

There is no reason to require using a Mesa OpenGL 4.x context. It will likely introduce bugs due to the removal of certain depreciated compatibility functions.

However, I will look at other versions of options for OpenGL versions.

#### #13 - 04/30/2016 05:42 PM - kilobug

Tested quickly on my laptop, which has an integrated i3 Haswell GPU, with the same software (Debian Sid, Oibaf's PPA, KSP from GOG), I have the same behavior : some empty menus by default, but all works with -force-glcore33 (didn't try other options, the game is slow to load on this low-specs laptop).

#### #14 - 05/21/2016 08:58 PM - ktt9

Same here.

KSP version 1.1.2.1260  
Mesa 11.2.2  
LLVM 3.7.1  
radeonsi driver (Radeon R7 370)

-force-glcore helped. Much thanks for that.

#### #15 - 06/11/2016 05:44 AM - reedrs

Here are some observations from another piece of hardware:

Intel Core i7-6560U (Skylake)  
Intel Iris Graphics 540  
3200x1800 screen (in fullscreen mode at full resolution for these tests)  
Kerbal Space Program 1.1.2 64-bit  
Arch Linux x86\_64  
xf86-video-intel version: 1:2.99.917+654+ga508b11  
mesa version: 11.2.2  
llvm-libs version: 3.8.0

I'm using KDE/kwin, but I used openbox for these tests to avoid any confusion with <http://bugs.kerbalspaceprogram.com/issues/7695> . According to glxinfo, OpenGL 3.3 is the highest version supported.

Arguments:	Result:
none	empty settings, menus, etc., exactly as in OP screenshots
-force-glcore	everything seems to work fine
-force-glcore30	empty settings, menus, etc., exactly as in OP screenshots
-force-glcore31	empty settings, menus, etc., exactly as in OP screenshots
-force-glcore32	everything seems to work fine
-force-glcore33	everything seems to work fine

#### #16 - 06/11/2016 07:26 AM - Ruedii

This problem is universal with all versions of OpenGL on Linux Mesa drivers.

It seems to be fixed by running fullscreen at 720x1280 on widescreen monitors. I'm not sure what resolution it works at on non-widescreen.

As a note, could someone test with the Force GLES settings.

#### #18 - 07/17/2016 09:55 AM - TriggerAu

- Status changed from Need More Info to Needs Clarification

#### #19 - 07/30/2016 08:50 AM - kilobug

- Status changed from Needs Clarification to Updated

- % Done changed from 0 to 10

So, I did a bunch of tests using latest GOG version (1.1.3), on Debian Sid, on two computers : my laptop with an integrated Haswell card, my desktop with a Radeon R9 R380X (Tonga), and different versions of Mesa and different swtiches.

On the laptop :

- latest stable mesa (12.0), officially supported OpenGL 3.3 : as listed above :
  - with no argument or -force-glcore30 / -force-glcore31 : empty menus ; \* with -force-glcore / -force-glcore32 / -force-glcore33 : everything works fine ;
- git mesa (oibaf ppa), officially supported OpenGL 3.3 : all works fine by default, and even if I use -force-glcore31 .

On the desktop :

- latest stable mesa (12.0), officially supported OpenGL 4.1 : somewhat as listed above :
  - with no argument or -force-glcore30 / -force-glcore31 : empty menus ; \* with -force-glcore : segmentation fault ; \* with -force-glcore32 / -force-glcore33 : everything works fine ;
- git mesa (oibaf ppa), officially supported OpenGL 4.1 : game crashes (segmentation fault) at startup regardless of options ;
- git mesa + git llvm (padoka ppa), officially supported OpenGL 4.3 : same than with stable mesa :
  - with no argument or -force-glcore30 / -force-glcore31 : empty menus ; \* with -force-glcore : segmentation fault ; \* with -force-glcore32 / -force-glcore33 : everything works fine.

So it does seem somewhat driver-related, but -force-glcore32 / -force-glcore33 always seem to either help or not change anything, perhaps it would be safe to just include them by default on Linux builds ?

(Also, on the side issue, with the Radeon card, sometimes, regardless of the Mesa version and -force-glcore switches, the whole game screen is black, quitting and restarting fixes it, but I've no idea if it's related, and it seems pretty much random.)

#### #20 - 08/01/2016 10:02 AM - sal\_vager

It wouldn't be a good idea to include those lines by default as it might cause issue with other players, and as they are Unity commands and not from Squad we cannot provide support if they don't work.

It definitely is a driver issue, for example this issue doesn't show with Nvidia drivers, I've not heard of it with nouveau either.

The problem here is that there's nothing Squad can do about issues at the graphics driver or game engine level, except to recommend the player uses a working driver.

But it's good to know that the oibaf ppa solved this for you, at least on your laptop, that suggests that this issue will eventually be resolved as the mesa driver improves support for features used by Unity.

#### #21 - 08/01/2016 10:04 AM - sal\_vager

- Related to Bug #9443: Some menus don't have entries added

#### #22 - 08/02/2016 08:53 AM - Jajcus

It wouldn't be a good idea to include those lines by default as it might cause issue with other players

+1

Such a workaround can be suggested for users, but should not be hard-coded.

It definitely is a driver issue, for example this issue doesn't show with Nvidia drivers, I've not heard of it with nouveau either.

When a buggy code (causing 'undefined behaviour' according to the specification) is working with one driver and is not working with another one, then it is not a driver issue, but the engine code issue. And this might be the case here.

The problem here is that there's nothing Squad can do about issues at the graphics driver or game engine level, except to recommend the player uses a working driver.

Squad may also work with driver and engine providers to fix the bugs. The first think I would try is to reproduce this error with newer Unity version (even if other parts of the game are not ready yet) and if it helps, try to get the fix back-ported.

#### #23 - 10/13/2016 07:17 PM - sal\_vager

- Status changed from Updated to Ready to Test

- % Done changed from 10 to 80

This should be fixed thanks to the newer Unity version.

#### #24 - 10/14/2016 01:11 AM - Squelch

- Target version set to 1.2.0

#25 - 10/22/2016 08:45 PM - kilobug

I confirm that on my two setups (desktop with Radeon RX380 using mesa/radeonsi, and laptop with Haswell integrated graphics, using mesa/intel) the issue is fixed on version 1.2.0 (from gog). Congrats ! :)

#26 - 12/02/2016 08:29 AM - JPLRepo

- Status changed from Ready to Test to Closed

- % Done changed from 80 to 100

Files

snapshot3.png	26.6 KB	04/20/2016	Aristaeus
snapshot4.png	62.6 KB	04/20/2016	Aristaeus
snapshot5.png	62.4 KB	04/20/2016	Aristaeus
snapshot6.png	1.05 MB	04/20/2016	Aristaeus
snapshot7.png	1.04 MB	04/20/2016	Aristaeus