

Kerbal Space Program - Bug #17986

No occlusion on part highlighters in VAB/SPH under OpenGL on drivers that do not provide Depth-Buffer by default.

03/11/2018 04:54 PM - Ruedii

Status:	New	Start date:	03/11/2018
Severity:	Low	% Done:	0%
Assignee:			
Category:	Camera		
Target version:			
Version:	1.4.0	Language:	English (US)
Platform:	Linux	Mod Related:	No
Expansion:			

Description

Part highlighters are visible behind objects and have various other occlusion glitches in the VAB/SPH when the depth buffers default to off, such as in the Linux Mesa drivers.

Suggested fix:

Have video stack request a visual with depth buffer (16bit depth buffer should be more than sufficient for this purpose. The scene is small depth-wise.)

Workaround for Mesa Drivers:

Use options to force depth buffer on all visuals.

This issue has occurred off and on since early KSP versions. The issue is upstream in Unity, as it doesn't automatically use a depth buffer if any shaders require one. However, it should be able to be worked around when setting up the scene by overriding Unity's default context selection.

As a note I would recommend always using a depth buffer, because honestly the benefit on modern video cards exceeds the cost due to hyper-z and fast-z reject optimizations that can benefit from z-buffer values.

For the z-buffer I recommend a highest precision available (Float if possible) in flight mode, a 32bit integer in the Space Center mode and Tracking Center mode and 16bit integer in VAB/SPH.