

Kerbal Space Program - Bug #28036

Game hangs if duplicated mods are detected

06/25/2021 08:24 AM - IgorZ

Status:	New	Start date:	06/25/2021
Severity:	Low	% Done:	0%
Assignee:			
Category:	Regression		
Target version:			
Version:	1.12.0	Language:	English (US)
Platform:	Windows	Mod Related:	No
Expansion:	Core Game		
Description			
Steps to reproduce: 1. Have ANY DLL be existing twice within the `GameData` folder. E.g. you may copy `ModuleManager.4.1.4.dll` into any arbitrary location under `GameData` folder. The requirement is to have two or more copies of the same DLL. 2. Try to load the game. Observed behavior: 1. The game hangs and doesn't load. 2. The logs would have a record: [EXC 00:48:56.413] ArgumentOutOfRangeException: Index was out of range. Must be non-negative and less than the size of the collection. Parameter name: index System.ThrowHelper.ThrowArgumentOutOfRangeException (System.ExceptionArgument argument, System.ExceptionResource resource) (at <9577ac7a62ef43179789031239ba8798>:0) System.ThrowHelper.ThrowArgumentOutOfRangeException () (at <9577ac7a62ef43179789031239ba8798>:0) System.Collections.Generic.List`1[T].RemoveAt (System.Int32 index) (at <9577ac7a62ef43179789031239ba8798>:0) AssemblyLoader.FlagDuplicatedPlugins () (at <a1ca58b5ca7140639de29a81de5e3f32>:0) GameDatabase+<LoadObjects>d__90.MoveNext () (at <a1ca58b5ca7140639de29a81de5e3f32>:0) UnityEngine.SetupCoroutine.InvokeMoveNext (System.Collections.IEnumerator enumerator, System.IntPtr returnValueAddress) (at <12e76cd50cc64cf19e759e981cb725af>:0) UnityEngine.MonoBehaviour:StartCoroutine(IEnumerator) <CreateDatabase>d__71.MoveNext() UnityEngine.MonoBehaviour:StartCoroutine(IEnumerator) GameDatabase:StartLoad() <LoadSystems>d__11.MoveNext() UnityEngine.MonoBehaviour:StartCoroutine(IEnumerator) LoadingScreen:Start()			

History

#1 - 06/26/2021 12:50 AM - IgorZ

Clarified. In order to trigger this bug there should be two pairs of the duplicated mods. I.e. make a duplication of `ModuleManager.4.1.4.dll` and then choose another mod and make duplication for it too. The system works fine if only one duplicated mod is detected.

#2 - 06/26/2021 09:29 AM - IgorZ

FYI. Such mods like KIS and KAS cannot be used in KSP 1.12 anymore due to this bug. And this is not the only mods affected. Basically, anything that uses the shared DLLs (like MiniAVC-V2.dll) would make the game hanging.

#3 - 08/14/2021 11:13 PM - gotmachine

Still happening in 1.12.2

This is a huge issue with absolutely zero workarounds. There are many mods packaging common dependencies (nuget packages, unity/mono assemblies like System.IO.Compression) or providing redistribuable API assemblies.

Note that contrary to IgorZ comment, the error doesn't happen consistently, it is dependent on the assemblies load order.

In some cases, AssemblyLoader.FlagDuplicatedPlugins() won't fail with an ArgumentOutOfRangeException, but it will still remove random assemblies from its internal list.

#4 - 08/14/2021 11:56 PM - IgorZ

gotmachine wrote:

Note that contrary to IgorZ comment, the error doesn't happen consistently, it is dependent on the assemblies load order.

Yeah, with more testing around it I've figured it's about the mods loading order. Sometimes duplicates got removed successfully, but sometimes the game hangs. And there is on way to predict it. I ended up re-compiling all my shared DLLs with different names for each mod. This is the only way to stop deduplication logic to break the game.