

Kerbal Space Program - Bug #2422

Fix within: Incorrect copying of fields in ProtoPartSnapshot.Load(Vessel vesselRef, bool loadAsRootPart).

04/26/2014 06:10 PM - swamp_ig

Status:	Closed	Start date:	04/26/2014
Severity:	Normal	% Done:	100%
Assignee:			
Category:	Parts		
Target version:			
Version:	0.23.5	Language:	English (US)
Platform:	Any	Mod Related:	No
Expansion:			

Description

When initiating a vessel this method copies the root part with all it's modules and contents to the vessel gameObject.

There's an error in the way the fields are copied for both the Part and all PartModule enclosed within.

Currently it looks like this:

```
Part part = vesselRef.gameObject.AddComponent(this.partRef.GetType()) as Part;
FieldInfo[] fields = this.partRef.GetType().GetFields();
for (int i = 0; i < fields.Length; i++)
{
    FieldInfo fieldInfo = fields[i];
    if (fieldInfo.IsPublic)
    {
        fieldInfo.SetValue(part, fieldInfo.GetValue(this.partRef));
    }
}
```

Which isn't correct. It will copy static fields, and attempt to copy constant fields too resulting in exceptions. It also misses out on non-public fields which really should get copied.

A much better way would be:

```
Part part = vesselRef.gameObject.AddComponent(this.partRef.GetType()) as Part;
FieldInfo[] fields = this.partRef.GetType().GetFields(BindingFlags.Public | BindingFlags.NonPublic
| BindingFlags.Instance);
for (int i = 0; i < fields.Length; i++)
{
    FieldInfo fieldInfo = fields[i];
    fieldInfo.SetValue(part, fieldInfo.GetValue(this.partRef));
}
```

Note this same code block is also used for PartModule as well as Part, so there's two bits to fix.

History

#1 - 07/17/2016 09:25 AM - TriggerAu

- Status changed from New to Needs Clarification

#2 - 08/09/2016 10:39 AM - TriggerAu

- Status changed from Needs Clarification to Closed

- % Done changed from 0 to 100

Closing this report out for now. If you find it is still occurring in the latest version of KSP please open a new report (and this one can be linked to it.) For best results, the wiki contains really useful info for when creating a report <http://bugs.kerbalspaceprogram.com/projects/ksp/wiki>.

You can also ask questions about the bug cleanup in the forum here:

<http://forum.kerbalspaceprogram.com/index.php?/topic/143980-time-to-clean-up-the-bug-tracker/> and tag @TriggerAu to get my attention