

Kerbal Space Program - Bug #13670

ConfigNode.ReadArray breaks on trying to load IEnumerable that is not an IList.

01/26/2017 08:28 AM - allista

Status:	New	Start date:	01/26/2017
Severity:	Normal	% Done:	0%
Assignee:			
Category:	Application		
Target version:			
Version:	1.2.2	Language:	English (US)
Platform:	Linux, OSX, PS4, Windows, XboxOne	Mod Related:	No
Expansion:			

Description

ConfigNode.IsGenericArray returns true for any IEnumerable<> field:

```
Type type = typeof(IEnumerable<>).MakeGenericType(new Type[] { genericArguments[i] });
if (type.IsAssignableFrom(fieldType))
{
    return true;
}
```

But any of the **Read...Array** methods assume that such a field can be casted to IList:

```
if (ConfigNode.IsGenericArray(field.FieldType))
{
    IList list2 = (IList)Activator.CreateInstance(field.FieldType);
}
```

This breaks, for example, the loading of an object containing: [Persistent] HashSet<int> some_set:

```
InvalidCastException: Cannot cast from source type to destination type.
at ConfigNode.ReadValueArray (. field, .ConfigNode node)
at ConfigNode.ReadArray (. field, .ConfigNode node)
at ConfigNode.ReadObject (System.Object obj, .ConfigNode node)
at ConfigNode.LoadObjectFromConfig (System.Object obj, .ConfigNode node, Int32 pass, Boolean removeAfterUse)
at ConfigNode.LoadObjectFromConfig (System.Object obj, .ConfigNode node)
```

Solution: IsGenericArray should check for IList or, better yet, for ICollection instead of IEnumerable.