

Kepler - Bug #3255

Diva ConcurrentModificationException

04/30/2008 09:18 AM - Christopher Brooks

Status:	Resolved	Start date:	04/30/2008
Priority:	Normal	Due date:	
Assignee:	Christopher Brooks	% Done:	0%
Category:	general	Estimated time:	0.00 hour
Target version:	Unspecified	Spent time:	0.00 hour
Bugzilla-Id:	3255		

Description

I'm seeing the following stack trace in the DOS window when I run the Kepler-1.0.0 installer on a Windows 2003 Server that has multiple cores:

Exception in thread "AWT-EventQueue-0" java.util.ConcurrentModificationExceptio

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at java.util.LinkedList$ListItr.checkForComodification(Unknown Source)
    at java.util.LinkedList$ListItr.next(Unknown Source)
    at java.util.Collections$UnmodifiableCollection$1.next(Unknown Source)
    at ptolemy.kernel.util.NamedObj.attributeList(NamedObj.java:365)
    at ptolemy.vergil.actor.ActorGraphModel$PortModel.getParent(ActorGraphModel.java:1513)
    at diva.graph.modular.ModularGraphModel.getParent(ModularGraphModel.java:107)
    at diva.graph.GraphUtilities.isContainedNode(GraphUtilities.java:156)
    at diva.graph.GraphUtilities.isPartiallyContainedEdge(GraphUtilities.java:187)
    at diva.graph.AbstractGraphController.rerender(AbstractGraphController.java:295)
    at diva.graph.AbstractGraphController$ChangeListener.structureChanged(AbstractGraphController.java:638)
    at diva.graph.toolbox.GraphEventMulticaster.structureChanged(GraphEventMulticaster.java:154)
    at diva.graph.toolbox.GraphEventMulticaster.dispatchEvent(GraphEventMulticaster.java:86)
    at diva.graph.AbstractGraphModel$1.run(AbstractGraphModel.java:79)
    at java.awt.event.InvocationEvent.dispatch(Unknown Source)
    at java.awt.EventQueue.dispatchEvent(Unknown Source)
    at java.awt.EventDispatchThread.pumpOneEventForFilters(Unknown Source)
    at java.awt.EventDispatchThread.pumpEventsForFilter(Unknown Source)
    at java.awt.EventDispatchThread.pumpEventsForHierarchy(Unknown Source)
    at java.awt.EventDispatchThread.pumpEvents(Unknown Source)
    at java.awt.EventDispatchThread.pumpEvents(Unknown Source)
    at java.awt.EventDispatchThread.run(Unknown Source)
```

Thomas Feng wrote:

--start--  
I saw this exception more often when using the TransformationAttribute (the one I showed yesterday for regression testing) on a dual-core Vista machine. But when I used another computer that did not have dual core, the problem never showed up. I thought it was a bug in GT, so I went ahead and fixed a few places by adding getReadAccess() and doneReading(). This reduced the number of exceptions on the dual-core machine, but it still happened.

I then ran some very simple SDF models, and still got the exception in my command console. Those models were just as simple as two Ramps connected to a Display. I really wonder how this happens. Maybe someone does attributeList() and use the returned list without protecting the whole transaction with getReadAccess()? This kind of bugs are really hard to trace. We could modify the attributeList()

function to return a list that logs every operation on it, though.  
--end--

This is probably my fault, I'll take a look.

**Related issues:**

Blocked by Kepler - Bug #3245: Release 1.0 installer tracking bug	Resolved	04/29/2008
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**History**

**#1 - 04/30/2008 12:16 PM - Chad Berkley**

You're seeing this when you run the installer or a specific workflow?

**#2 - 04/30/2008 12:33 PM - Christopher Brooks**

I saw it with the Kepler 1.0.0 kepler.exe  
I can't repeat it. I was trying  
ptolemy/actor/lib/hoc/demo/ApplyFFT/ApplyFFT.xml  
However, I think it is more generic and  
can happen for any demo on a multi-core machine.

**#3 - 04/30/2008 07:36 PM - Christopher Brooks**

I think I've narrowed down the problem and hope to have a solution tonight  
or tomorrow. I posted my notes to the ptdevl list, I think it has  
to do with data.expr.TemporaryVariable not grabbing a lock when it  
adds itself to the container.

**#4 - 04/30/2008 11:54 PM - Christopher Brooks**

I've checked in a fix to ptolemy.kernel.util.Attribute.  
Basically, if incrementWorkspaceVersion is false, then get write Access to  
the workspace because we are updating the \_\_attributes field of the  
container.

**#5 - 03/27/2013 02:22 PM - Redmine Admin**

Original Bugzilla ID was 3255