

## Kepler - Bug #3266

### ENM/GARP\_MultipleSpecies-V.xml problems

05/02/2008 11:02 AM - Derik Barseghian

<b>Status:</b>	In Progress	<b>Start date:</b>	05/02/2008
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Chad Berkley	<b>% Done:</b>	0%
<b>Category:</b>	general	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	3.X.Y	<b>Spent time:</b>	0.00 hour
<b>Bugzilla-Id:</b>	3266		
<b>Description</b>			
ENM/GARP_MultipleSpecies-V.xml crashes Ubuntu Kepler. On mac execution completes but just gives ImageJ "Unrecognized comand: ASC TextReader" messages.			

#### History

##### #1 - 05/02/2008 12:14 PM - Chad Berkley

fixed the mac problem by adding a plugins symlink to the working dir.

##### #2 - 05/05/2008 01:50 PM - Chad Berkley

this workflow crashes on windows almost immediately after beginning execution. on ubuntu, it doesn't crash until almost all the way through execution.

##### #3 - 05/05/2008 02:03 PM - Chad Berkley

workflow completes successfully on OSX

##### #4 - 05/05/2008 03:12 PM - Chad Berkley

got this to work on windows and mostly on linux. it wasn't working due to the setting of the .kepler directory as the R working dir. I'm not sure why this was causing a problem, but I've mapped a property to change the working directory for the R actor that feeds into the GarpPresampleLayers actor.

The windows workflow fully executes. On linux, however, it gets to the end, then displays an exception that says "Port should produce 1 tokens, but there were 0 tokens available." I thought that Christopher had fixed a similar bug earlier. I'm not sure what's causing it. I don't see the error on windows or OSX.

Here's the full stack trace:

```
ptolemy.kernel.util.IllegalActionException: Port should produce 1 tokens, but there were only 0 tokens available.  
in .GARP_MultipleSpecies-V.Single Species GARP Model.Calculate Best Rulesets.Calculate Omission/Commission.SDF Director and  
.GARP_MultipleSpecies-V.Single Species GARP Model.Calculate Best Rulesets.Calculate Omission/Commission.omission  
at ptolemy.domains.sdf.kernel.SDFDirector.transferOutputs(SDFDirector.java:742)  
at ptolemy.actor.CompositeActor.fire(CompositeActor.java:411)  
at ptolemy.actor.CompositeActor.iterate(CompositeActor.java:787)  
at ptolemy.actor.sched.StaticSchedulingDirector.fire(StaticSchedulingDirector.java:170)  
at ptolemy.actor.CompositeActor.fire(CompositeActor.java:400)  
at ptolemy.actor.CompositeActor.iterate(CompositeActor.java:787)  
at ptolemy.actor.sched.StaticSchedulingDirector.fire(StaticSchedulingDirector.java:170)  
at ptolemy.actor.lib.hoc.LifeCycleManager._fireInsideModel(LifeCycleManager.java:334)  
at ptolemy.actor.lib.hoc.LifeCycleManager._executeInsideModel(LifeCycleManager.java:289)  
at ptolemy.actor.lib.hoc.RunCompositeActor.fire(RunCompositeActor.java:204)  
at ptolemy.actor.CompositeActor.iterate(CompositeActor.java:787)  
at ptolemy.actor.sched.StaticSchedulingDirector.fire(StaticSchedulingDirector.java:170)  
at ptolemy.actor.CompositeActor.fire(CompositeActor.java:400)  
at ptolemy.actor.Manager.iterate(Manager.java:688)  
at ptolemy.actor.Manager.execute(Manager.java:332)  
at ptolemy.actor.Manager.run(Manager.java:1071)  
at ptolemy.actor.Manager$3.run(Manager.java:1112)
```

##### #5 - 05/06/2008 02:00 PM - Chad Berkley

added a note in the workflow and in the README about scew and expat on linux.

##### #6 - 05/07/2008 03:33 PM - ben leinfelder

running this workflow on my linux box (ubuntu 7.10) crashes Kepler with no error shown nor logged to the log file.

#### #7 - 05/07/2008 03:39 PM - Jing Tao

In ubuntu, it crashed kepler twice:  
**\*done with main garp algorithm\*\***  
DONE Calling RunGarpAlgorithm in CPP Code.  
Finished with GarpAlgorithm JNI code  
firing GarpPrediction  
Starting GarpPrediction JNI Code  
Calling DoGarpPrediction in CPP Code.  
**\*in DoGarpPrediction cpp code\***  
Aborted (core dumped)

#### #8 - 05/07/2008 04:33 PM - Aaron Aaron

In windows v3 installer, runs for several minutes, generates several maps and then gives

```
ptolemy.kernel.util.IllegalActionException: Expression invalid.  
in .GARP_MultipleSpecies-V.Get Species/Location information.LocationFilename  
Because:  
The index '1' is out of bounds on the array '{}'.  
at ptolemy.actor.lib.Expression.fire(Expression.java:232)  
at ptolemy.actor.AtomicActor.iterate(AtomicActor.java:398)  
at ptolemy.actor.sched.StaticSchedulingDirector.fire(StaticSchedulingDirector.java:170)  
at ptolemy.actor.CompositeActor.fire(CompositeActor.java:400)  
at ptolemy.actor.Manager.iterate(Manager.java:688)  
at ptolemy.actor.Manager.execute(Manager.java:332)  
at ptolemy.actor.Manager.run(Manager.java:1071)  
at ptolemy.actor.Manager$3.run(Manager.java:1112)  
Caused by: ptolemy.kernel.util.IllegalActionException: The index '1' is out of bounds on the array '{}'.  
at ptolemy.data.expr.ParseTreeEvaluator._evaluateArrayIndex(ParseTreeEvaluator.java:1161)  
at ptolemy.data.expr.ParseTreeEvaluator.visitFunctionApplicationNode(ParseTreeEvaluator.java:310)  
at ptolemy.data.expr.ASTPtFunctionApplicationNode.visit(ASTPtFunctionApplicationNode.java:96)  
at ptolemy.data.expr.ParseTreeEvaluator.evaluateParseTree(ParseTreeEvaluator.java:93)  
at ptolemy.actor.lib.Expression.fire(Expression.java:227)  
... 7 more  
Caused by: ptolemy.kernel.util.IllegalActionException: The index '1' is out of bounds on the array '{}'.  
at ptolemy.data.expr.ParseTreeEvaluator._evaluateArrayIndex(ParseTreeEvaluator.java:1161)  
at ptolemy.data.expr.ParseTreeEvaluator.visitFunctionApplicationNode(ParseTreeEvaluator.java:310)  
at ptolemy.data.expr.ASTPtFunctionApplicationNode.visit(ASTPtFunctionApplicationNode.java:96)  
at ptolemy.data.expr.ParseTreeEvaluator.evaluateParseTree(ParseTreeEvaluator.java:93)  
at ptolemy.actor.lib.Expression.fire(Expression.java:227)  
at ptolemy.actor.AtomicActor.iterate(AtomicActor.java:398)  
at ptolemy.actor.sched.StaticSchedulingDirector.fire(StaticSchedulingDirector.java:170)  
at ptolemy.actor.CompositeActor.fire(CompositeActor.java:400)  
at ptolemy.actor.Manager.iterate(Manager.java:688)  
at ptolemy.actor.Manager.execute(Manager.java:332)  
at ptolemy.actor.Manager.run(Manager.java:1071)  
at ptolemy.actor.Manager$3.run(Manager.java:1112)
```

#### #9 - 05/07/2008 09:56 PM - Derik Barseghian

jing and ben - did you get ubuntu crashes after following the expat and scew instructions?  
chad - i followed those but it still crashed on me ala the core dump jing posted. however i went through the instructions quickly yesterday,, so it's possible i missed something (btw the last instructions is to run ant, but that won't work with the installer version obviously). i won't be able to test on my ubuntu box until monday

#### #10 - 05/08/2008 01:35 PM - Chad Berkley

This complex workflow depends on a lot of external dependencies. If any one of them fail, the workflow fails. I've been playing with it all day trying to narrow down what we could do to make it more stable. short of redesigning it to run only in java and not using external file sources, I'm not sure there is anything we can do. 90% of the time on windows and OSX, it runs fine. Why it chooses to fail sometimes, I'm not completely sure. I've played with filename variables, R script working directories, file sources, etc. Everytime I think it's fixed, it eventually will lock up, crash or somehow break.

My thinking on this right now is we should not hold up the kepler release because of this (and the other GARP-SingleSpecies\_BestRuleSet) workflow. I'm aware that GARP is a key part of SEEK and I would really like it to work flawlessly, but at this point, I don't think it's going to without a lot of work. I move to push these bugs to 1.1 and release Kepler as it is. We could add a caveat to the GARP workflows letting people know we know about problems and giving some basic solutions. I think if we try to solve all of these problems with GARP, Kepler is not going to be released for at least a month or probably more.

Any comments? Please say whether you think the GARP workflows working perfectly should be a pre-requisite for releasing kepler. I've marked this as "major" so that it stands out in the search results until we resolve this.

#### #11 - 05/08/2008 03:28 PM - Dan Higgins

Chad - As the creator of this workflow, I should have great insights into what is wrong - but I don't!  
I would guess that there is some thread problem somewhere. I am assuming the the single species GARP workflow is running OK?

I don't think anyone is using this wf for any active research, so it would seem OK to me to not let intermittent problems stop the release of Kepler 1.0

Dan Higgins

**#12 - 05/12/2008 09:41 AM - Chad Berkley**

Matt and I have decided to go ahead and release these workflows with the following annotation attached:

**ATTENTION ENM USERS:**

As of Kepler release 1.0 we have worked hard to make the ENM workflows as stable as possible.

Due to several complexities involving the implementation of GARP in the workflows,

there are some known bugs that may cause the workflow to not function correctly, terminate

early or crash Kepler altogether. We will continue working on these problems after release 1.0.

Please see bug 3266 at <http://bugzilla.ecoinformatics.org> for a full description of these problems.

**#13 - 03/27/2013 02:22 PM - Redmine Admin**

Original Bugzilla ID was 3266