

## Kepler - Bug #3097

### incorrect classpath in generated ptexecute.sh and momlexecute.sh

01/23/2008 11:27 AM - Daniel Crawl

<b>Status:</b>	Resolved	<b>Start date:</b>	01/23/2008
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Chad Berkley	<b>% Done:</b>	0%
<b>Category:</b>	build system	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	2.0.0	<b>Spent time:</b>	0.00 hour
<b>Bugzilla-Id:</b>	3097		
<b>Description</b>			
<p>The scripts ptexecute.sh and momlexecute.sh generated by build.xml (v1.366) do not have the jars in \$KEPLER/lib/jar/ in the classpath. (same for ptexecute.bat and momlexecute.bat on windows). kepler.sh has the same classpath, but works since it uses ClassPathHacker to dynamically add the jars at runtime.</p> <p>One solution is to modify PtExecuteApplication (ptexecute.sh) and MoMLSimpleApplication (momlexecute.sh) to also use ClassPathHacker. A more flexible approach would be to create a single "loader" class that worked for all three: PtExecuteApplication, MoMLSimpleApplication, and KeplerApplication.</p> <p>Thoughts?</p>			
<b>Related issues:</b>			
Blocked by Kepler - Bug #3162: ptExecuteConfig.xml depends on removed basicKe...		<b>Resolved</b>	<b>02/26/2008</b>
Blocked by Kepler - Bug #3949: Get the installer working with the new build s...		<b>Resolved</b>	<b>04/06/2009</b>

## History

### #1 - 01/23/2008 11:37 AM - Matt Jones

A class with the name 'ClassPathHacker' worries me a bit. I think we need a robust class loader that can work under all 3 applications to dynamically add jars at runtime.

### #2 - 01/23/2008 12:14 PM - Dan Higgins

ClassPathHacker is the name given by the author to his class for dynamic classpath additions. Using the authors choice seems quite appropriate for a very useful piece of code. It cannot be used with ptexecute.sh and momlexecute.sh because they are Ptolemy code and do not include the dynamic calls to load jars.

### #3 - 01/31/2008 02:31 PM - Dan Higgins

crawl will check in fixes after RC1

Dan Higgins

### #4 - 04/02/2008 09:13 AM - Chad Berkley

On the 1.0 release conference call, we discussed creating one shell script to replace all of the current ones. There should be two flags: -cache/nocache and -gui/nogui which would allow a user to set whether he/she wanted to use the kepler cache (and have the problem where you can't run more than one instance of kepler) or whether he/she would want to use a GUI. In the case of nogui, any gui components in a workflow should be ignored and they should not throw an exception.

### #5 - 04/02/2008 04:15 PM - Daniel Crawl

I added a new target to the build file: 'ant build\_wfexecute\_sh' creates wfexecute.sh, which accepts -gui/-nogui and -cache/-nocache arguments.

Chad, could you please test this to make sure it handles your use-case?

Thanks,

--dan

### #6 - 04/15/2008 08:01 PM - Christopher Brooks

I tried wfexecute, it looks pretty slick, below are some comments.

- The name is a little funny. wtf comes to mind, which is vulgar.  
Maybe call it wfexec? I dunno.  
- Only wfexecute.bat is created? What about Unix?  
- Perhaps the Usage message should indicate which of ~~no-gui/gui~~  
~~and -nocache/cache are the defaults.~~  
A comment at the top about what the script does might help.  
- When I run:

~~.\wfexecute gui-demos/getting-started/03-ImageDisplay.xml~~  
~~The image displays and then exits. Perhaps there should be~~  
~~a way to have the output stay visible?~~

Perhaps the rule that builds wfexecute.bat should also build  
the kepler.jar file as the script will not work unless kepler.jar  
is present. Maybe the build directory should also be in the  
path of this script? I'm not sure about that though.

Also, about ClassPathHacker, I think the name should be changed.  
I'm quite sad that the term "Hack" has been maligned by non-hackers  
to mean something evil, but it is a reality. ClassPathMunger  
might be an alternative name.

Just my \$0.02

#### #7 - 04/21/2008 02:05 PM - Daniel Crawl

I moved the wfexecute functionality into kepler.sh and kepler.bat.

Remaining tasks:

1. kepler.bat functionality should be moved into kepler.exe. I tried building kepler.exe, but Launch4J fails:

```
C:\k\kepler>ant buildwinexe  
Buildfile: build.xml
```

```
buildwinexe:
```

```
[launch4j] Compiling resources
```

```
[launch4j] c:\program files\Launch4J\bin\windres.exe: C:\DOCUME~1\LOCALS~1\Temp\launch4j39769rc:4: syntax error
```

```
BUILD FAILED
```

```
C:\k\kepler\build.xml:1622: net.sf.launch4j.BuilderException: net.sf.launch4j.ExecException: Exec failed: [Ljava.lang.String;@1dfafd1
```

2. (from comment [#6](#)) pause before exiting when running with '-gui'.

3. running with '-nogui' means running MoMLSimpleApplication:

- '-nogui -cache' is not possible since MoMLSimpleApplication does not read a  
Configuration (cache is loaded via a Configuration).

- MoMLSimpleApplication does not filter Display actor or any GUI Kepler  
actors.

[#2](#) and [#3](#) are enhancements since they would be new functionality. After [#1](#) is resolved, I'd say re-target the remaining to the 1.1 release.

#### #8 - 04/23/2008 12:52 PM - Daniel Crawl

I updated kepler.exe for windows and removed kepler.bat.

The remaining tasks are enhancements for a later release.

#### #9 - 04/03/2009 02:19 PM - Chad Berkley

Need to make sure this functionality still works with the new modular system and new build system.

#### #10 - 04/24/2009 04:39 PM - Chad Berkley

Created a new task 'ant startupScript' which generates 4 scripts to start kepler. kepler.sh, kepler.bat, kepler.exe and Kepler.app/. The .sh and .bat files will take as many arguments as are needed to launch kepler. The .exe and .app are for windows and osx respectively. I do not believe they can take the additional arguments.

Will test the [#2](#) and [#3](#) next week. If they work, I will close this bug.

#### #11 - 04/29/2009 03:03 PM - Chad Berkley

Update:

2. (from comment [#6](#)) pause before exiting when running with '-gui'.

I'm looking into this now. I'm not exactly sure how to pause the execution since this functionality uses reflection to create and call the class that executes the workflow. Anyone know how to do this?

3. running with '-nogui' means running MoMLSimpleApplication:  
- '-nogui -cache' is not possible since MoMLSimpleApplication does not read a Configuration (cache is loaded via a Configuration).

This error is now caught and explained to the user.

- MoMLSimpleApplication does not filter Display actor or any GUI Kepler actors.

I think this point could be an entirely new bug in and of itself. Not sure how to do this quickly. I'll put it in a new bug and target it post-2.0

**#12 - 05/04/2009 10:32 AM - Chad Berkley**

Execution now pauses. Will break "- MoMLSimpleApplication does not filter Display actor or any GUI Kepler actors." into a separate bug.

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

Original Bugzilla ID was 3097