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Java 3D (read only archive)

8 replies [Last post]

Java3d and OS X

May 14, 2008 - 12:33

conzar

Offline

Joined: 2003-07-15

Does anyone know how to get Java3D 1.5 to work with OS X?

Both running from a term as well as running from jws?

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Re: Java3d and OS X

May 19, 2008 - 11:47

puybaret

Offline

Joined: 2004-12-04

Hello,

Please see the solution I proposed in these messages:
<http://forums.java.net/jive/thread.jspa?messageID=233726𹆹>
<http://lists.apple.com/archives/Java-dev/2007/Sep/msg00023.html>

This is the solution I used successfully for Sweet Home 3D:
<http://sweethome3d.cvs.sourceforge.net/sweethome3d/SweetHome3D/src/com/e...>

You may test it with Java Web Start here:
<http://sweethome3d.sourceforge.net/SweetHome3D.jnlp>

Re: Java3d and OS X

February 28, 2009 - 02:35

eyvind432

Offline


Joined: 2008-05-21

Has anyone got this to work? My Java3d applets start like they should with JNLAppletLauncher on Windows, but they don't on MacOS. How can I get them to start like they should on MacOS? You can see my Java3d applets here:

http://astral.mobile-visuals.com/3d_visuals.php

I included the JAR's for MacOS in the applet code. Here is the code that I use:

Missing Plug-in



Re: Java3d and OS X

March 3, 2009 - 10:05

#3

runiter Offline Joined: 2007-09-22	<p>Yes I got it to work using the solution proposed by SweetHome3D author as suggested by puybaret. You can check out my Java3D applet here:</p> <p>http://calculator.runiter.com/graphing-calculator/online-graphing-calcul...</p> <p>I used to use appletLauncher, but not anymore. The SweetHome3D solution works much better in all platforms including Mac OS X.</p>
--	---

Re: Java3d and OS X #4 May 15, 2008 - 07:02	
<div><div><div></div><div>martinezmj</div><div>Offline</div><div>Joined: 2008-04-11</div></div></div>	<p>I have this working with an application bundle using Xcode, but haven't tried with JWS.</p> <p>1) First I set "java.ext.dirs" to not include /System/Library/Java/Extensions (where 1.3 is located). See http://lists.apple.com/archives/Java-dev/2007/Aug/msg00441.html</p> <p>2) Then I included the Java3D 1.5 JAR files in the "Link Binary With Libraries" build phase (I selected merge).</p> <p>3) I store the .jnilib files in the application JAR and unpack them at runtime. I use this http://forum.java.sun.com/thread.jspa?threadID=707176 to add the location where I unpack to the library path.</p> <p>You could store the native libraries for all platforms in the application JAR and then depending on the OS that is detected, unpack the ones you need at runtime. With this method you can make a single executable JAR that can be used to run your Java3D project on any platform.</p> <p>Michael</p>

Re: Java3d and OS X #5 May 15, 2008 - 06:20	
<div><div><div></div><div>jamiehope</div><div>Offline</div><div>Joined: 2007-10-22</div></div></div>	<p>Java on Mac OS X searches for jars and jnilibs in these directories, in this order:</p> <p>~/Library/Java/Extensions/ /Library/Java/Extensions/ /System/Library/Java/Extensions/</p> <p>So since the built-in Java 3D is installed in /System/Library/Java/Extensions/, all you have to do is put yours in one of the other two (/Library for all users, ~/Library for a single user) and it will take precedence.</p>

Re: Java3d and OS X #6 May 14, 2008 - 14:44	
<div><div><div></div><div>martinezmj</div><div>Offline</div><div>Joined: 2008-04-11</div></div></div>	<p>1.5 requires using JOGL https://jogl.dev.java.net/</p>

Re: Java3d and OS X #7 May 14, 2008 - 17:26	
<div><div><div></div><div>conzar</div><div>Offline</div><div>Joined: 2003-07-15</div></div></div>	<p>Yep, I'm aware that JOGL is required. However, how do you instruct java to use java3d 1.5 & JOGL instead of the java3d 1.3 thats installed by apple?</p> <p>I haven't been able to override 1.3 either on the command line nor via jws (jnlp file). I also tried setting a property to use the jogl renderer inside main and that didn't seem to work.</p> <p>Is there a way of doing this without removing the existing java3d 1.3 ... particularly b/c this should be painless for mac folks running the software via JWS.</p> <p>Thanks</p>

#8

Re: Java3d and OS X May 15, 2008 - 01:50	
Dmitri Darine	<div>On 15.05.2008 02:26, java3d-interest@javadesktop.org wrote:</div> <div>> Is there a way of doing this without removing the existing java3d 1.3 ... > particularly b/c this should be painless for mac folks running the software via JWS. > > Apparently there is no way :(</div> <div>To make the installation easier you can try this installer made by Michael Louka: http://create.ife.no/vr/tools/j3d/java3d_1_5_1-macosx.pkg.zip</div> <div>DD</div> <div>-----</div> <div>To unsubscribe, e-mail: interest-unsubscribe@java3d.dev.java.net For additional commands, e-mail: interest-help@java3d.dev.java.net</div>

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Overriding default Java 3D 1.3.1

Subject: Overriding default Java 3D 1.3.1

From: Emmanuel Puybaret <email@hidden>

Date: Tue, 28 Aug 2007 18:45:22 +0200

Delivered-to: email@hidden

Delivered-to: email@hidden

Thread-index: AcfpktMgEa9D+FWGEddyQARJDxhQg==

Thread-topic: Overriding default Java 3D 1.3.1

User-agent: Microsoft-Entourage/11.3.3.061214

Hi,

I developed Sweet Home 3D, a Java application that requires Java 3D. I want to make it available as a Java Web Start application and as a Mac OS X application run with JavaApplicationStub. The problem is that I'd prefer to use Java 3D 1.5 which is available for Mac OS X, instead of Java 3D 1.3 available by default in Mac OS X.

As far as I understood Java extension mechanism in Mac OS X, Java 3D 1.5 libraries should be installed either in /Library/System/Java/Extensions folder or in ~/Library/System/Java/Extensions, with a bigger priority given to the user Extensions folder. But as Sweet Home 3D is targeted to a general public audience, I don't want to bother people with lengthy installation instructions, telling them they should install Java 3D 1.5 first. By the way, I feel like that even if they install Java 3D themselves, nothing in Java allows to give a priority between two libraries containing the same classes (in case Java 3D evolves in the future).

- But for the Mac OS X application run with JavaApplicationStub, I found a solution to grant a higher priority to a given version of Java 3D : I'll provide the Java 3D jars in application Contents/Resources/Java folder and configure the Info.plist to run the application with the following VM option :

```
-Xbootclasspath/p:j3dcore.jar:j3dutils.jar:jogl.jar:vecmath.jar
:gluegen-rt.jar -Dsun.boot.library.path=/System/Library/Frameworks/
JavaVM.framework/Versions/1.5/Libraries:.
```

(for the full source of the Info.plist file, please read <http://sweethome3d.cvs.sourceforge.net/sweethome3d/SweetHome3D/install/macosx/SweetHome3D.app/Contents/Info.plist?revision=1.4> - btw it contains some UTTypeIdentifier and CFBundleDocumentTypes keys for people seeking an example of use of this tags in Java).

I think this solution is nice, because the user will have nothing special to install and it will work with the Java 3D library bundled with Sweet Home 3D application, whatever the user installed or removed from his Extensions folders. But do you think it's too dangerous to reference Java 1.5 framework and sun.boot.library.path (note that it won't work with the -Djava.library.path property) ?

- For the Java Web Start application, I don't see any solution, because Java 3D 1.3 default extension will always have a higher priority than any Java 3D library referenced by the JNLP file ! (the current JNLP file is available here : <http://sweethome3d.cvs.sourceforge.net/sweethome3d/SweetHome3D/deploy/SweetHome3D.jnlp?revision=1.14>)

Any idea on how to achieve this ?

Thank you for reading

--

Emmanuel PUYBARET

Email : email@hidden

Web : <http://www.eteks.com>

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Re: Overriding default Java 3D 1.3.1

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Overriding Java System Library with newer class on Mac

I'm trying to compile and run a Java3D project on my mac and having some trouble. I'm using Eclipse. The program depends on an old version of Java3D, but even after I add the correct Jars in Eclipse it still is looking in the default system location instead.

When running my program in Eclipse, I get this issue:

Exception in thread "AWT-EventQueue-0" java.lang.NoSuchMethodError:
javax.media.j3d.BranchGroup.pickAllSorted(IILjavax/media/j3d/PickShape;)[Ljavax/media/j3d/PickInfo; at
com.sun.j3d.utils.pickfast.PickTool.pickAllSorted(PickTool.java:410)


BranchGroup.pickAllSorted does not exist in the Mac Default JRE System Library (JVM 1.6.0), but it does exist in the correct JAVA3D jars that I have included. I've added them to my buildpath, AND they are referenced above the JRE system library in Properties-Java Build Path-Order and Export. This seems like it should be the solution but it doesn't work.

I've been trying for a while and cannot get it to work. One possible lead I had was to try putting the .jars in /Library/Java/Extensions. When I do this, I instead get an OpenGL error and my program doesn't open at all, but its doing something I guess.

Thanks for the help.

- java
- eclipse
- osx
- dependencies
- java-3d


asked Dec 14 '10 at 21:27


 **Varun Singh**
455 ● 5 ● 18

2 Answers

In Eclipse, go to `Run > Run Configurations > Your Main > Arguments > VM Arguments` and add `-Xbootclasspath/p:newjava3d.jar` . This prepends newjava3d.jar to your bootclasspath, so the relevant classes will be loaded from it.

answered Dec 14 '10 at 22:43

 **Binil Thomas**
7,549 ● 5 ● 34 ● 56

Adding this line to the Vm Arguments: -Xbootclasspath/p:j3dcore.jar (or a:j3dcore.java) Results in:
Exception in thread "AWT-EventQueue-0" java.lang.NoClassDefFoundError: com/sun/opengl/util/BufferUtil
at javax.media.j3d.JoglPipeline.<clinit>(JoglPipeline.java:5048) – [Varun Singh](#) Dec 15 '10 at 0:54 

You will have to install JOGL as mentioned in the `README-unzip.html` file that came with the Java3D distribution. You can find the latest Java3D distribution at [java3d.dev.java.net/binary-builds.html](#) – [Binil Thomas](#) Dec 15 '10 at 4:00


Its not mentioned in that readme, but thats it, thanks a lot! – [Varun Singh](#) Dec 15 '10 at 19:54


When launching the program, try using either the `-Xbootclasspath` or the `-Xbootclasspath/a` switch to add your jars to the classpath. [See the java tool documentation](#).


answered Dec 14 '10 at 22:09


 **Mike Baranczak**
4,978 ● 22 ● 50

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Porting a Java3D app to OSX - Problem with capabilities

Forums » Read Only Archived Forums » Java 3D (read only archive)

3 replies [Last post]

Porting a Java3D app to OSX - Problem with capabilities

December 3, 2009 - 10:51

internaut

Offline

Joined: 2009-10-12

Hi there!

I wanted to port my app to Mac OSX, which shouldn't be a problem I thought, but as it comes out, it's not that easy...

I have huge problems with "CapabilityNotSetExceptions". For example, I have a Shape3D, that gets picked with a PickMouseBehavior. I'm setting the Picking mode like this:

```
<br />pickCanvas.setMode(PickTool.GEOMETRY_INTERSECT_INFO);<br />
```

And my capabilities for the Shape3D as follows:

```
<br />_bg = new BranchGroup();<br />_bg.setCapability(BranchGroup.ALLOW_CHILDREN_EXTEND);<br />_bg.setCapability(BranchGroup.ALLOW_CHILDREN_WRITE);<br />_bg.setCapability(TransformGroup.ENABLE_PICK_REPORTING);</p><p>_tg = new TransformGroup();<br />_tg.setCapability(TransformGroup.ALLOW_TRANSFORM_WRITE);<br />_tg.setCapability(BranchGroup.ALLOW_CHILDREN_EXTEND);<br />_tg.setCapability(BranchGroup.ALLOW_CHILDREN_WRITE);<br />_tg.setCapability(TransformGroup.ENABLE_PICK_REPORTING);</p><p>this.setCapability(ALLOW_PICKABLE_WRITE);<br />this.setCapability(ENABLE_PICK_REPORTING);<br />this.setPickable(true);<br />PickTool.setCapabilities(this, PickTool.INTERSECT_FULL);<br />
```

So I guess, I have set all necessary capabilities to enable picking for this object and it does work very well with Linux and Windows. But on Mac OSX (using the Java3D 1.5.2 libraries) it does **not** work... I'm getting one "CapabilityNotSetException" after another... For example I could fix one problem, by adding the following capabilites to a QuadArray:

```
<br />plane.setCapability(QuadArray.ALLOW_COORDINATE_READ);<br />plane.setCapability(QuadArray.ALLOW_COUNT_READ);<br />plane.setCapability(QuadArray.ALLOW_FORMAT_READ);<br />plane.setCapability(QuadArray.ALLOW_VERTEX_ATTR_READ);<br />
```

Why do I have to set every single capability for the OSX version, whereas the Linux and Windows versions behave good without these capabilites? Why is Java3D so strict on Mac OSX and not on Linux or Windows? And do I have to set all the capabilites now for every object and there geometry information or is there a better way? This is really a pain :(

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Re: Porting a Java3D app to OSX - Problem with capabilities

#1

December 3, 2009 - 11:03

alied

Offline

Joined: 2009-05-05

did you check the Java3D version on MacOSX?

I'm not a Mac user, but I've read that MacOSX comes with an old version of Java3D. That might be te cause.

Maybe installing a more recent version helps

<div>Re: Porting a Java3D app to OSX - Problem with capabilities<div>#2</div></div> <div>December 3, 2009 - 11:39</div>	
<div>internaut</div> <div>Offline</div> <div>Joined: 2009-10-12</div>	<div><div>Hm, thanks, that might really be the case... I've bundled the Java3D libs with my program, but it seem as it uses the libs that are already installed on the system... Now I'm struggling to tell java *not* to use these libs. How can I do that? I've set the Classpath to "." but that doesn't work :(And how can I see, which lib my app uses at the end? //Edit: Ok, I've found out, that it uses J3D 1.3.1 like this:</div><div>[code] _suniverse = new SimpleUniverse(_canvas3D); Map vuMap = _suniverse.getProperties(); DbgTools.print("J3D version: " + vuMap.get("j3d.version")); [/code]</div><div>This damn thing doesn't use *my* bundled libs... The classpath is alright and everything, but it seems as the system libs have a higher priority...</div><div>Message was edited by: internaut</div></div>

<div>Re: Porting a Java3D app to OSX - Problem with capabilities<div>#3</div></div> <div>December 3, 2009 - 16:41</div>	
<div>jamiehope</div> <div>Offline</div> <div>Joined: 2007-10-22</div>	<div><div>> Hm, thanks, that might really be the case... I've > bundled the Java3D libs with my program, but it seem > as it uses the libs that are already installed on the > system... Now I'm struggling to tell java *not* to > use these libs. How can I do that? I've set the > Classpath to "." but that doesn't work :(> And how can I see, which lib my app uses at the end? > //Edit: Ok, I've found out, that it uses J3D 1.3.1 > like this: > [code] > _suniverse = new SimpleUniverse(_canvas3D); > Map vuMap = _suniverse.getProperties(); > DbgTools.print("J3D version: " + > vuMap.get("j3d.version")); > [/code] > > This damn thing doesn't use *my* bundled libs... The > classpath is alright and everything, but it seems as > the system libs have a higher priority.. > > Message was edited by: internaut</div><div>You're out of Java3D world now, this is standard Java stuff. The OS-provided Java 3D jars are in /System/Library/Java/Extensions, one of the directories used by the Java Extension Mechanism [1], which outranks the Classpath.</div><div>Unlike on other systems which only provide a single root-owned extensions directory, Mac OS X's implementation provides several, in this order of precedence (from highest to lowest):</div><div><ul style="list-style-type: none">• [My Great Java-based Application].app/Contents/Resources/Java/ - visible only to this application• /Users/username/Library/Java/Extensions/ - visible to all Java apps run by username• /Library/Java/Extensions/ - visible to all users, all apps• /System/Library/Java/Extensions/ - visible to all users, all apps. This is where Apple puts their stuff, so look but don't touch.</div><div>In order to override the System-provided version of Java 3D, put your libs (both jar files and dylib/jnilib files) in one of the other directories. The preferred way to do it is to bundle your application as a full-fledged Mac app and then put it in Contents/Resources/Java, so that the app is entirely self-sufficient and doesn't depend on (non-OS) files elsewhere on the system. If you need help with that,</div></div>

	<p>look up Jar Bundler.app (comes with the Developer Tools), the third-party "Jar Bundler" ant task, or ask on Apple's Java list [2].</p> <p>[1] http://java.sun.com/javase/7/docs/technotes/guides/extensions/spec.html</p> <p>[2] http://lists.apple.com/mailman/listinfo/java-dev</p>
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