How to Install JSindo for Windows

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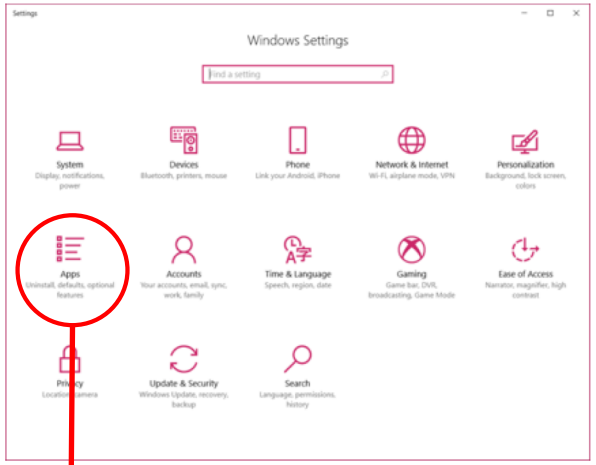
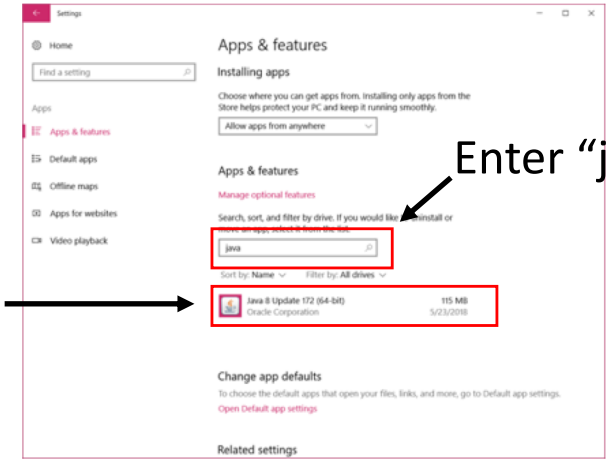
1. Install Java

STEP1: Let's check if your PC has Java installed or not, and the version of Java if you have.

Open the "Windows Settings", click "Apps", and search for "java" in Apps & features.

- If you don't find anything, it means you don't have java in your PC. Goto STEP2 to install.
- If your Java is Version 8, then you can skip the installation and go to Chap. 2.

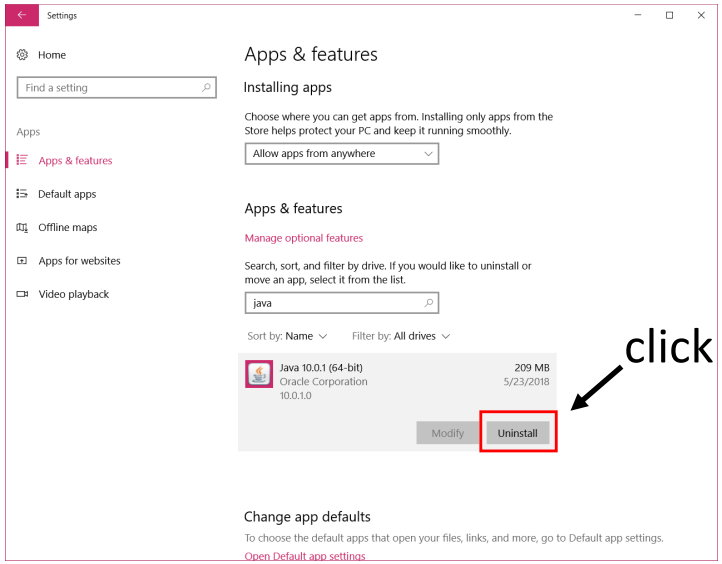




Version 8 Update 172!

If your Java is a newer one (version 9 and later), it is unfortunately NOT compatible with Java3D library, which JSindo use for visualization. In this case, uninstall Java and re-install version 8.

To uninstall java, click the program and then click a “uninstall” button.



click here to uninstall.

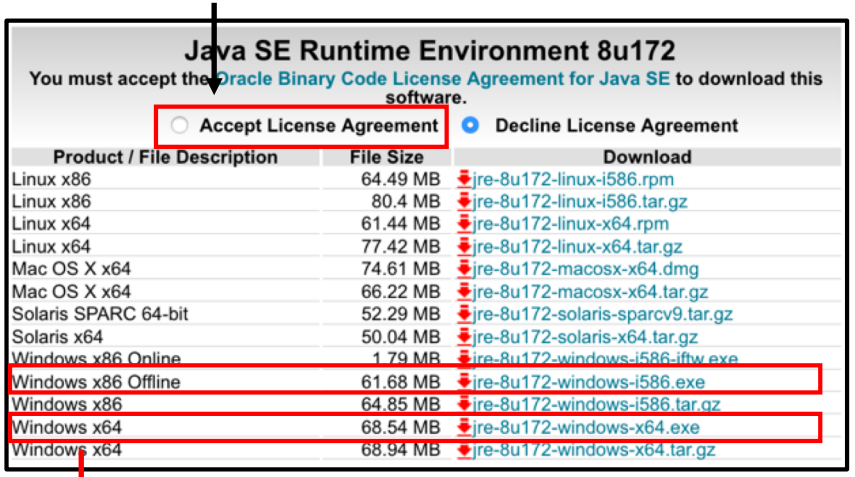
Unfortunately, your Java is Version 10.0.1…

STEP2: Install Java8.

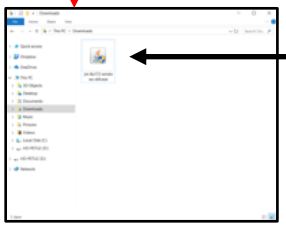
Search “Java SE download” in Google and goto the following website.

http://www.oracle.com/technetwork/java/javase/downloads/index.html

accept



download “i586” (32-bit) or “x64” (64-bit).



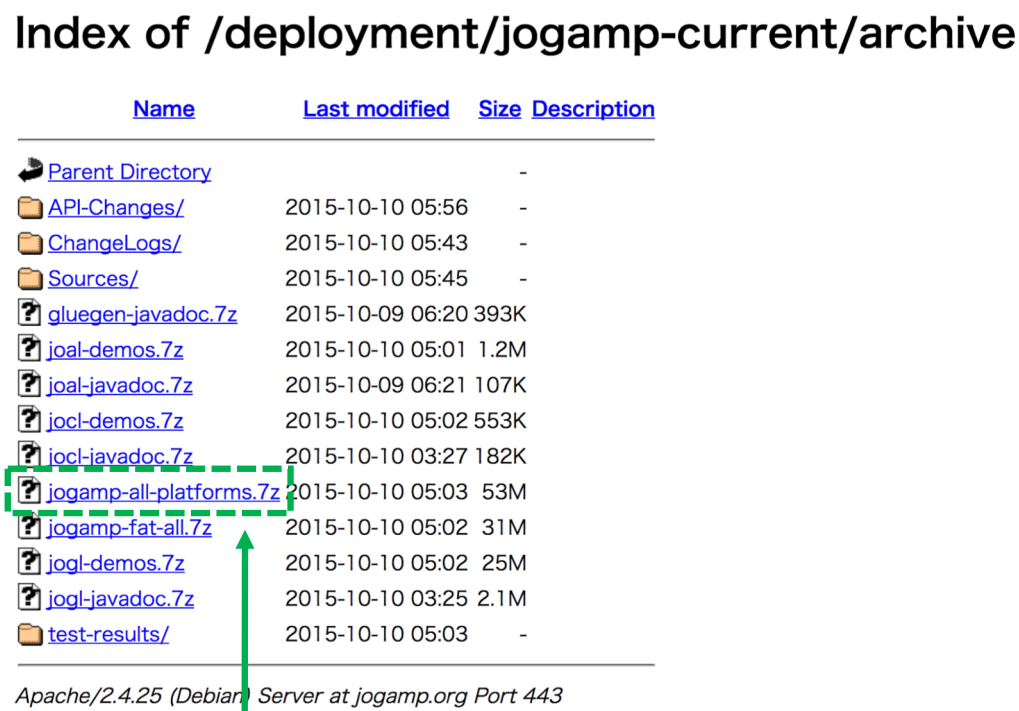
Double click, follow the instruction, and you’re done.

You may do STEP1 to double check you’ve got the right version installed.

2. Download Java3D

JSindo uses Java3D for visualization. A stable version, 1.6.0, is available from JogAmp. Goto http://jogamp.org

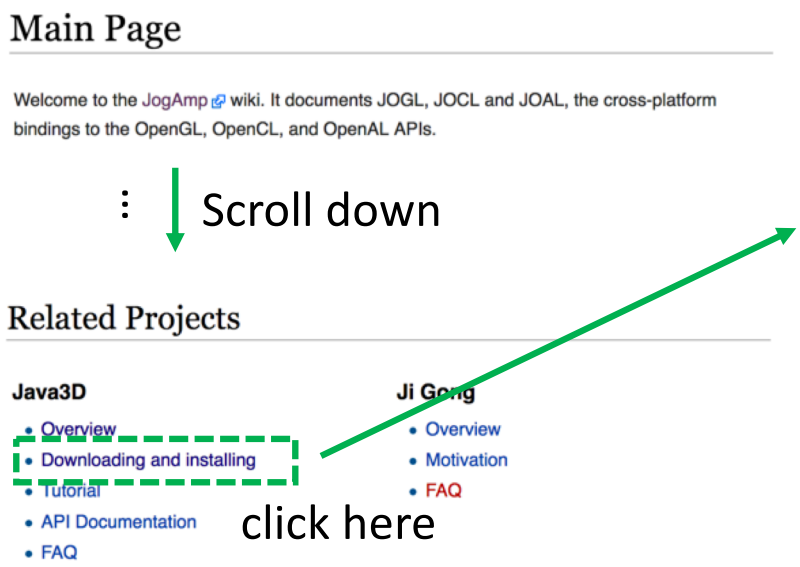
click here



click here and download jogamp-all-platforms.7z

Go back to the main page, then go to Wiki page,

Scroll down the Wiki page,



Unarchive the two files you've just downloaded. 7z files can be unarchived using, for example, "7Z Opener"

7Z Opener
Tiny Opener

You will find jar files in jogamp-all-platforms/jar and in jogamp-java3d. The following jar files are needed for JSindo:

```
jogamp-all-platforms/jar/
     gluegen-rt.jar
     gluegen.jar
     gluegen-rt-natives-windows-xxx.jar
     jogl-all.jar
     jogl-all-natives-windows-xxx.jar
```

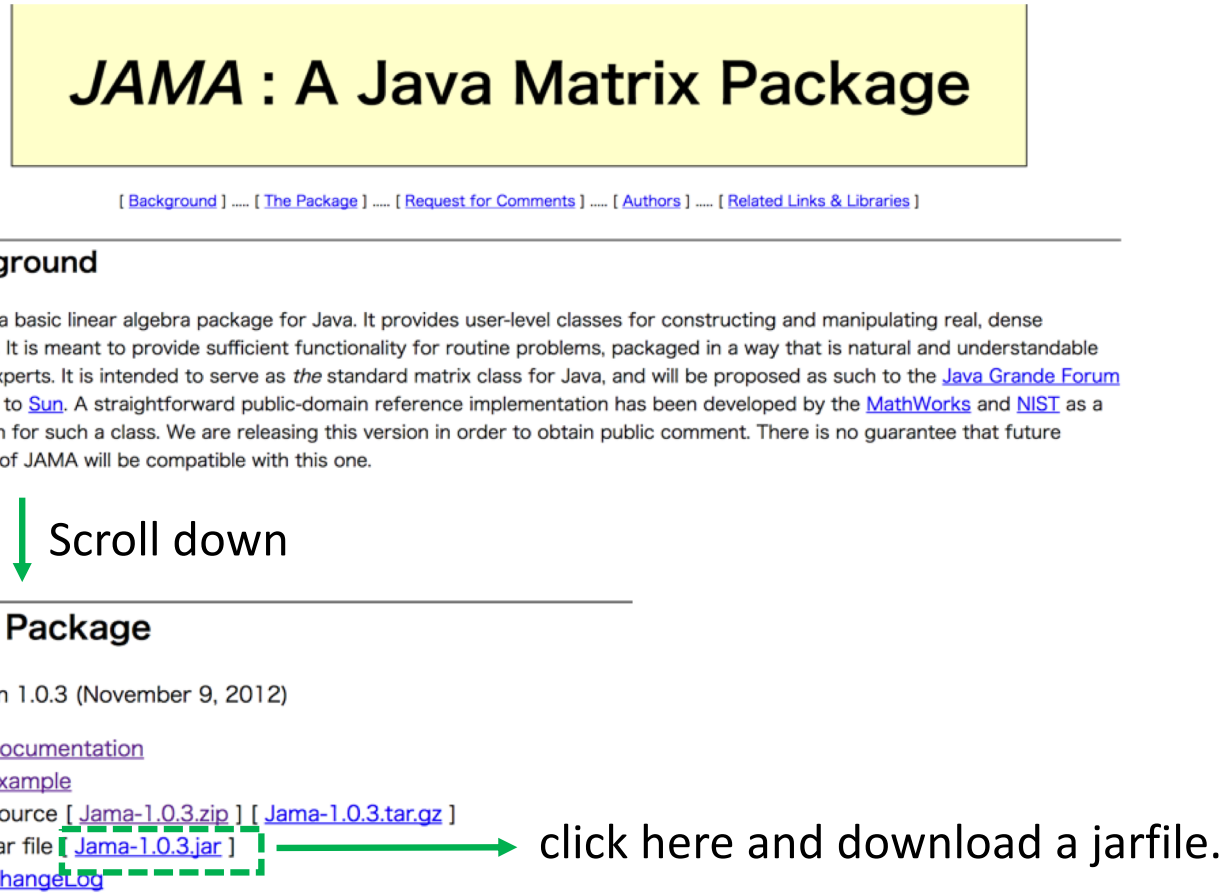
```
jogamp-java3d/
     j3dcore.jar
     j3dutils.jar
     vecmath.jar
```

where xxx = i586 (32-bit) or amd64 (64-bit).

3. Download JAMA

JAMA is a linear algebra library for JAVA. We use it for matrix multiplications, diagonalization, and so on. It can be downloaded from,

https://math.nist.gov/javanumerics/jama/



4. Copy jar files

Check whether your java is 32-bit or 64-bit. In Apps & features (see Chap. 1), you will find “Java8 Update xxx (64-bit)” for 64-bit, and just “Java8 Update xxx” for 32-bit. [It doesn’t explicitly write 32-bit.]

Now, we will copy the jar files to an extension folder, which is located at

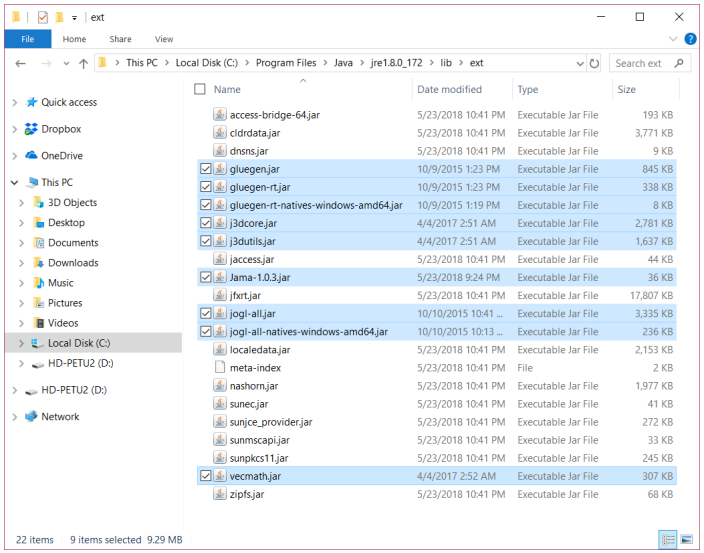
32-bit: c:¥Program Files (x86)¥Java¥jre1.8.x_xxx¥lib¥ext
64-bit: c:¥Program Files¥Java¥jre1.8.x_xxx¥lib¥ext

Copy the following jar files in this folder,

```
gluegen-rt.jar
gluegen.jar
gluegen-rt-natives-windows-xxx.jar
jogl-all.jar
jogl-all-natives-windows-xxx.jar
```

```
j3dcore.jar
j3dutils.jar
vecmath.jar
```

```
Jama-1.0.3.jar
```



where xxx = i586 (32-bit) or amd64 (64-bit).

5. Download and test JSindo

Download sindo-4.0.zip from our website:

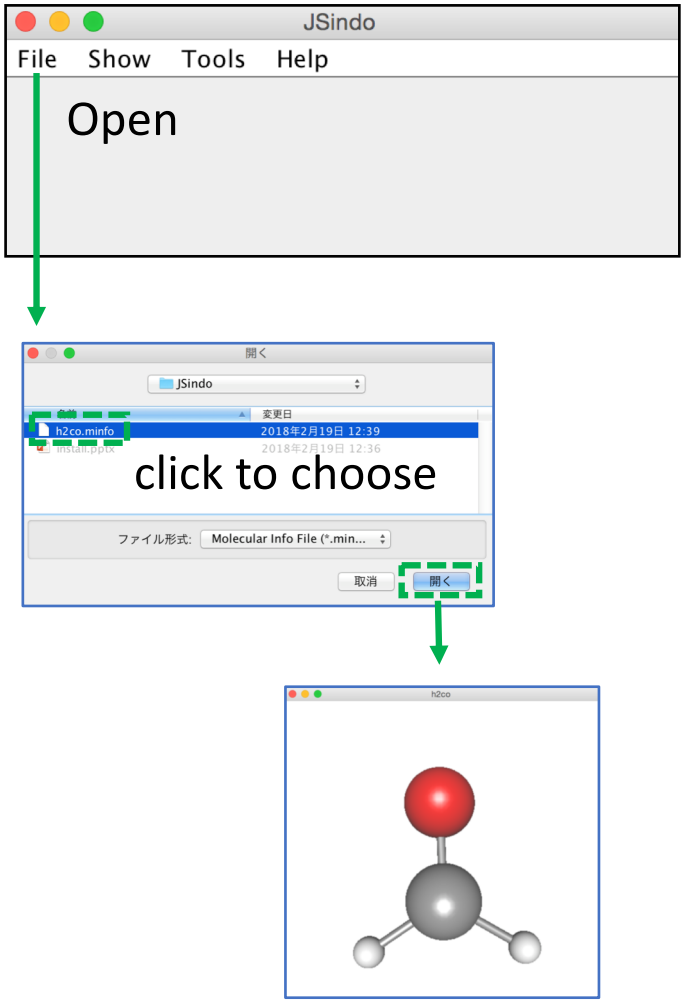
http://www.riken.jp/TMS2012/tms/en/research/software/sindo/index.html

Double click to unzip the file. Then, find sindo-4.0/jar/JSindo-4.0.jar. Double click the jar file, and you should see a control panel of JSindo. If you don't see the panel, review the installation of Java.

Let's test the program. Sample files are included in sindo-4.0/doc/JSindo/sample_JSindo.

In JSindo control panel, click File -> Open, choose "h2co.minfo", and click Open. If you see formaldehyde, you're done with the first step!

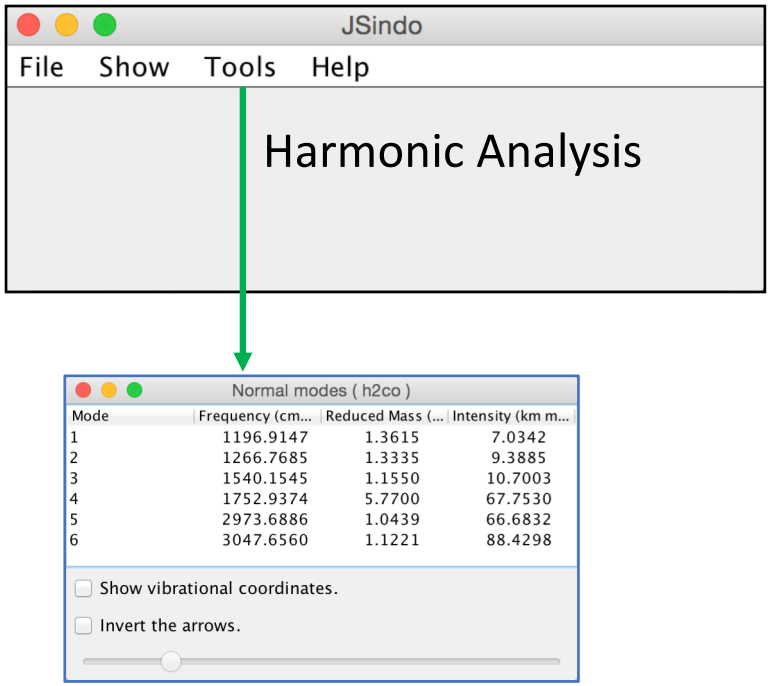
If this step fails, it is highly likely that JogAmp/ Java3D has a problem. Double check if the right jarfiles (xxx = amd64 or i586) are located in the folder.



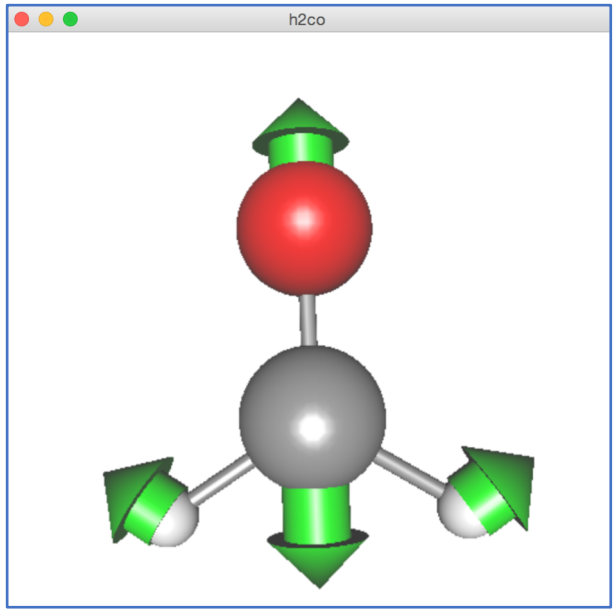
Finally, goto Tools -> Harmonic Analysis. This should create a panel of “Normal modes”.

If you don’t see this panel, JAMA isn’t working. Make sure the jarfile of JAMA is copied to the extension folder.

If the panel appears, you’re all set! Congratulations!



Check on ”show vibrational coordinates”, and choose a mode you want to see. Vibrational motion will be indicated by arrows. You can “Invert the arrows” by a check box, and change the magnitude using a slider.



Thanks for using JSindo!
Enjoy!