

How to Install JSindo for Windows

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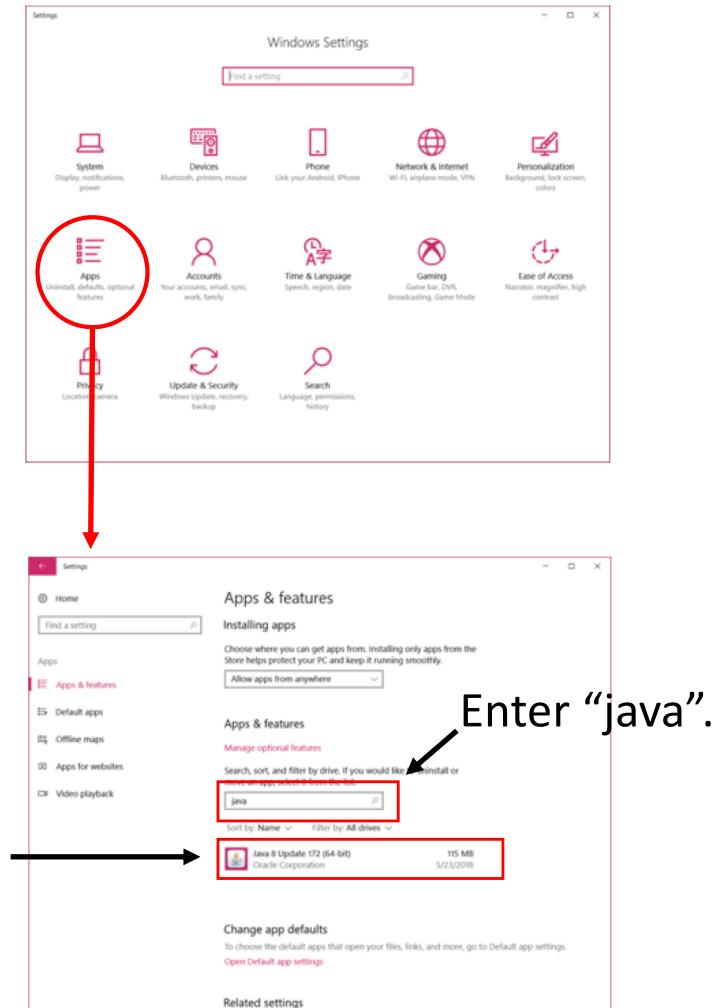
1. Install Java

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.

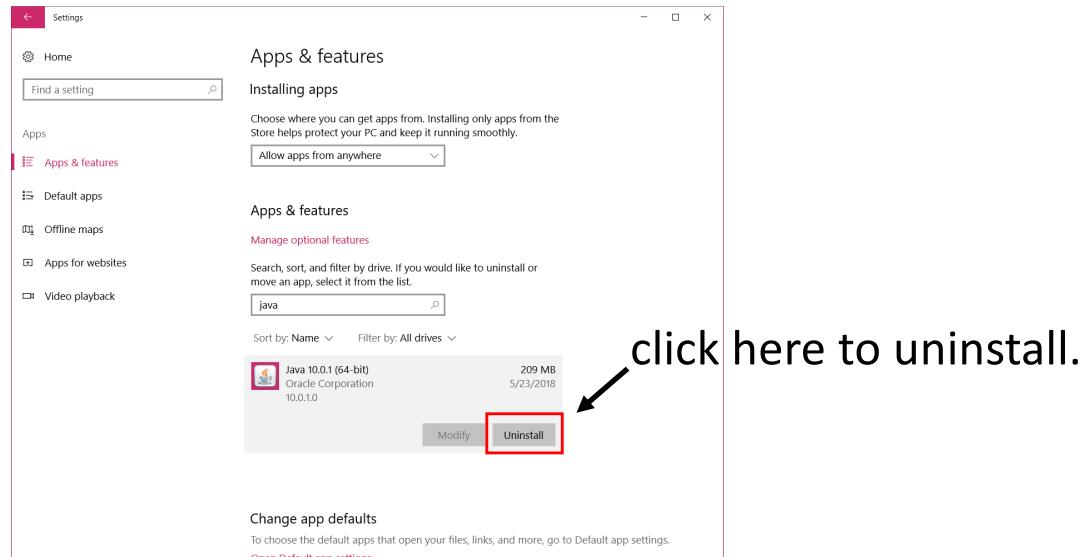
- If you don't find anything, it means you don't have java in your PC. Goto **STEP2** to install.
- If your Java is Version 8, then you can skip the installation and go to Chap. 2.

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.



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>

The screenshot shows the Oracle Java SE Downloads page. It features a sidebar with links like Java SE, Java EE, Java ME, etc. The main content area has sections for Java Platform (JDK) 10 and NetBeans. Below these, there's a section for Java Platform, Standard Edition, which includes Java SE 10.0.1 and Java SE 8u171. A red box highlights the Java SE 8u171 link, with an arrow pointing to it from the text "Java SE 8u". Another red box highlights the "Not this!" link in the Java SE 10.0.1 section. At the bottom, there's a "Java SE 8u171/ 8u172" note and a "JRE DOWNLOAD" button.

The screenshot shows the Java SE Runtime Environment 8u172 download page. It displays a table of download options. A red box highlights the "Accept License Agreement" checkbox. Another red box highlights the "Download" column for the "Windows x86 Offline" and "Windows x64" rows. The table includes columns for Product / File Description, File Size, and Download.

Product / File Description	File Size	Download
Linux x86	64.49 MB	jre-8u172-linux-i586.rpm
Linux x86	80.4 MB	jre-8u172-linux-i586.tar.gz
Linux x64	61.44 MB	jre-8u172-linux-x64.rpm
Linux x64	77.42 MB	jre-8u172-linux-x64.tar.gz
Mac OS X x64	74.61 MB	jre-8u172-macosx-x64.dmg
Mac OS X x64	66.22 MB	jre-8u172-macosx-x64.tar.gz
Solaris SPARC 64-bit	52.29 MB	jre-8u172-solaris-sparcv9.tar.gz
Solaris x64	50.04 MB	jre-8u172-solaris-x64.tar.gz
Windows x86 Online	1.79 MB	jre-8u172-windows-i586.exe
Windows x86 Offline	61.68 MB	jre-8u172-windows-i586.exe
Windows x86	64.85 MB	jre-8u172-windows-i586.tar.gz
Windows x64	68.54 MB	jre-8u172-windows-x64.exe
Windows x64	68.94 MB	jre-8u172-windows-x64.tar.gz

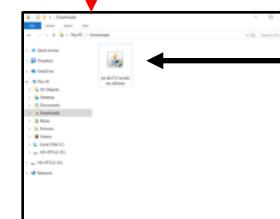
accept

Java SE Runtime Environment 8u172
You must accept the Oracle Binary Code License Agreement for Java SE to download this software.

Accept License Agreement Decline License Agreement

Product / File Description	File Size	Download
Linux x86	64.49 MB	jre-8u172-linux-i586.rpm
Linux x86	80.4 MB	jre-8u172-linux-i586.tar.gz
Linux x64	61.44 MB	jre-8u172-linux-x64.rpm
Linux x64	77.42 MB	jre-8u172-linux-x64.tar.gz
Mac OS X x64	74.61 MB	jre-8u172-macosx-x64.dmg
Mac OS X x64	66.22 MB	jre-8u172-macosx-x64.tar.gz
Solaris SPARC 64-bit	52.29 MB	jre-8u172-solaris-sparcv9.tar.gz
Solaris x64	50.04 MB	jre-8u172-solaris-x64.tar.gz
Windows x86 Online	1.79 MB	jre-8u172-windows-i586.exe
Windows x86 Offline	61.68 MB	jre-8u172-windows-i586.exe
Windows x86	64.85 MB	jre-8u172-windows-i586.tar.gz
Windows x64	68.54 MB	jre-8u172-windows-x64.exe
Windows x64	68.94 MB	jre-8u172-windows-x64.tar.gz

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>

The screenshot shows the jogamp.org homepage. A green dashed box highlights the 'Wiki' tab in the top navigation bar. Below the navigation, there's a 'Welcome' section with a brief introduction and links to modules like GlueGen, JOAL, JOGL, and JOCL. The 'Documentation' section is expanded, showing links to Wiki Page, How To Build, How To Contribute, Licenses, API Docs, Tutorials, and Misc Docs. The 'Builds / Downloads' section is also visible. A large green arrow points from the 'Wiki' tab on the left towards the 'jogamp-all-platforms.7z' file in the file list on the right. A callout box with the text 'click here' is positioned over the 'Builds / Downloads' section.

Index of /deployment/jogamp-current/archive

Name	Last modified	Size	Description
Parent Directory		-	
API-Changes/	2015-10-10 05:56	-	
ChangeLogs/	2015-10-10 05:43	-	
Sources/	2015-10-10 05:45	-	
 gluegen-javadoc.7z	2015-10-09 06:20	393K	
 joal-demos.7z	2015-10-10 05:01	1.2M	
 joal-javadoc.7z	2015-10-09 06:21	107K	
 jocl-demos.7z	2015-10-10 05:02	553K	
 jocl-iavadoc.7z	2015-10-10 03:27	182K	
 jogamp-all-platforms.7z	2015-10-10 05:03	53M	
 jogamp-fat-all.7z	2015-10-10 05:02	31M	
 jogl-demos.7z	2015-10-10 05:02	25M	
 jogl-javadoc.7z	2015-10-10 03:25	2.1M	
test-results/	2015-10-10 05:03	-	

Apache/2.4.25 (Debian) Server at jogamp.org Port 443

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

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

Scroll down the Wiki page,

Main Page

Welcome to the [JogAmp](#) wiki. It documents JOGL, JOCL and JOAL, the cross-platform bindings to the OpenGL, OpenCL, and OpenAL APIs.

⋮
↓ Scroll down

Related Projects

Java3D

- Overview
- [Downloading and installing](#)
- Tutorial
- API Documentation
- FAQ

Ji Gong

- Overview
- Motivation
- FAQ

click here

Page Discussion

Downloading and installing Java3D

Downloading the latest stable version

Go to [this page](#) and download the 7z archive file:

[jogamp-java3d.7z](#)

Do the same for JogAmp as it is indicated [here](#).

click here and download
jogamp-java3d.7z

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/>

JAMA : A Java Matrix Package

[[Background](#)] [[The Package](#)] [[Request for Comments](#)] [[Authors](#)] [[Related Links & Libraries](#)]

Background

JAMA is a basic linear algebra package for Java. It provides user-level classes for constructing and manipulating real, dense matrices. It is meant to provide sufficient functionality for routine problems, packaged in a way that is natural and understandable to non-experts. It is intended to serve as *the* standard matrix class for Java, and will be proposed as such to the [Java Grande Forum](#) and then to [Sun](#). A straightforward public-domain reference implementation has been developed by the [MathWorks](#) and [NIST](#) as a strawman for such a class. We are releasing this version in order to obtain public comment. There is no guarantee that future versions of JAMA will be compatible with this one.

⋮  Scroll down

The Package

Version 1.0.3 (November 9, 2012)

- [Documentation](#)
- [Example](#)
- Source [[Jama-1.0.3.zip](#)] [[Jama-1.0.3.tar.gz](#)]
- Jar file [[Jama-1.0.3.jar](#)] 
- [ChangeLog](#)

→ click here and download a jarfile.

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

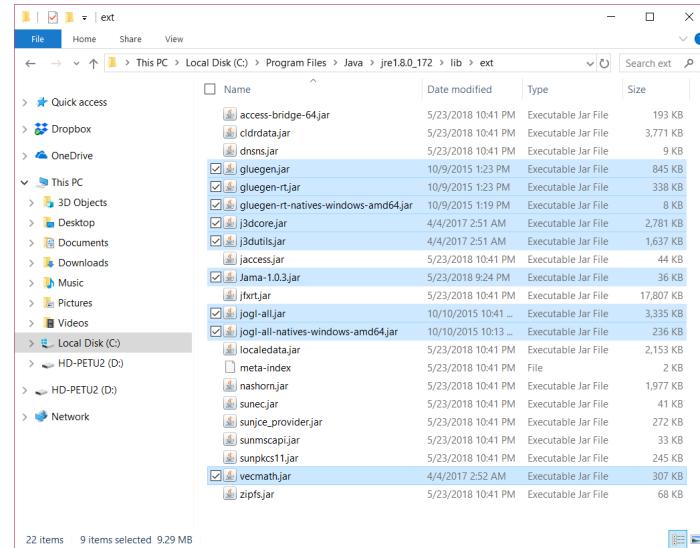
64-bit: c:\Program Files\Java\jre1.8.x_xxx\lib\ext

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:

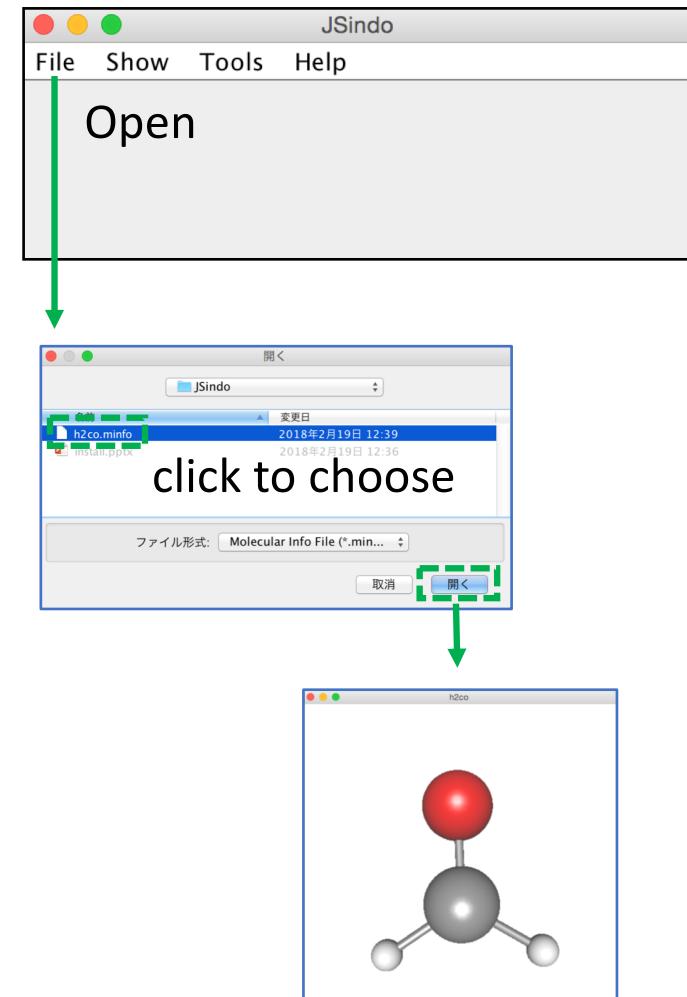
<http://www.riken.jp/TMS2012/tms/en/research/software/sindo/index.html>

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.



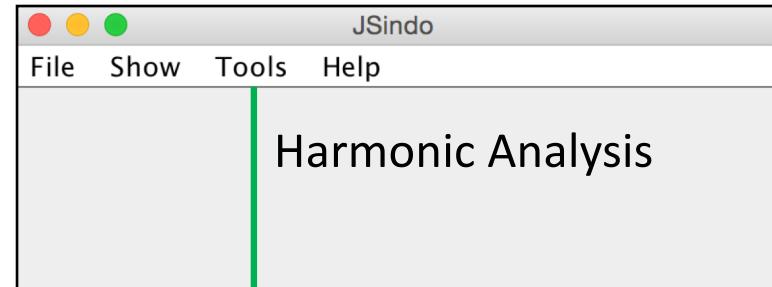
Finally, goto Tools -> Harmonic Analysis. This should create a panel of “Normal modes”.

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!



Mode	Frequency (cm...)	Reduced Mass (...)	Intensity (km m...)
1	1196.9147	1.3615	7.0342
2	1266.7685	1.3335	9.3885
3	1540.1545	1.1550	10.7003
4	1752.9374	5.7700	67.7530
5	2973.6886	1.0439	66.6832
6	3047.6560	1.1221	88.4298

Show vibrational coordinates.
 Invert the arrows.

