

How to Install JSindo

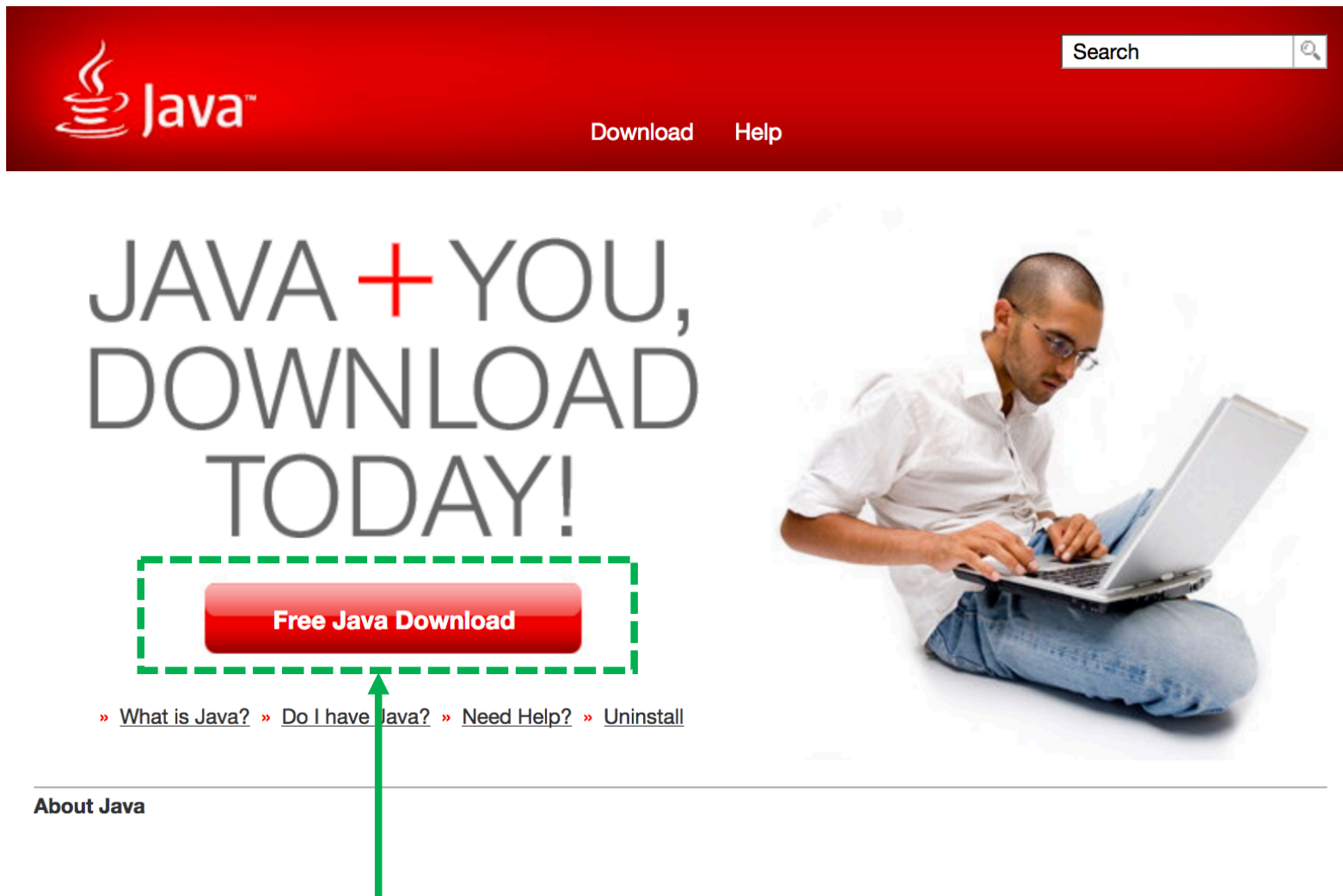
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RIKEN

1. Download Java

<https://www.java.com/en/>



click here and follow the instruction to install Java

2. Setting up Java3D

2.1. Windows

Search for “java3d” in the web to find Java3D API of ORACLE,
<http://www.oracle.com/technetwork/articles/javase/index-jsp-138252.html>

The screenshot shows the Oracle Technology Network website. The top navigation bar includes the Oracle logo, a menu icon, a search bar, and links for 'Sign In' and 'Country/Region'. Below the navigation bar is a breadcrumb trail: 'Oracle Technology Network / Articles / Java Platform, Standard Edition'.

The main content area is titled 'Java SE Desktop Technologies'. Under the 'Java 3D API' section, it states: 'The Java 3D API is now a community source project developed on java.net. [Click here](#) for more information.'

The page is divided into two columns: 'Community' and 'Reference'.

Community
[Java 3D Project](#)

Downloads
The Java 3D API enables the creation of three-dimensional graphics applications and Internet-based 3D applets. It provides high-level constructs for creating and manipulation 3D geometry and building the structures used in rendering that geometry. With this software, you can efficiently define and render very large virtual worlds.

- Java 3D™ 1.5.1 API
 - Download Java 3D 1.5.1 Software** (highlighted with a green dashed box and a green arrow pointing to it with the text 'click here')
 - [License](#)
 - [How to Install](#)
 - [Release Notes](#)
 - [Feedback](#)
- [Download Java 3D 1.4.0_01 Implementation Documentation](#)
- Previous Releases
 - Java 3D™ 1.4.0_01 API
 - [Download Java 3D 1.4.0_01 Software](#)
 - [How to Install](#)
 - [Release Notes](#)
 - [Feedback](#)

Reference
[API Current Release Specification](#)
The Java 3D API, version 1.3, is considered a minor release of the API, with changes resulting from customer, partner, and community feedback.

- [1.3 API](#)
Java 3D 1.3 API Documentation (does not include documentation for utilities)
- [1.3 API Specification Guide](#)
Java 3D 1.3 API Specification
- [1.2 API](#)
Java 3D 1.2 API
- [1.2 API Specification Guide](#)
Java 3D 1.2 API Specification
- [1.1 API](#)
Java 3D 1.1 API Documentation (does not include documentation for utilities)
- [1.1 API Specification Guide](#)
This developer guide covers the Java 3DTM API specification.
- FAQs**
This page lists content under FAQs for Java 3D

Before we proceed, let's check if your Java is 32- or 64-bit. In the DOS prompt, type "java -version" and you will see a message like this:

```
>java -version
java version "1.8.0_45"
Java(TM) SE Runtime Environment (build 1.8.0_45-b14)
Java HotSpot(TM) 64-Bit Server VM (build 25.45-b02, mixed mode)
```

This is an example of 64-bit. If "64-Bit" is absent, then it's 32-bit. (It doesn't explicitly state "32-Bit", unfortunately.)

Alternatively, you may check these folders,

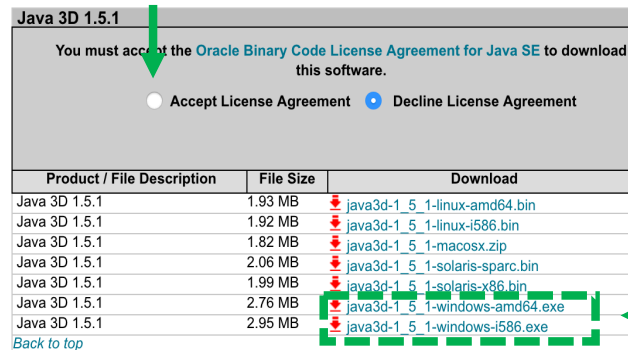
c:\Program Files\Java

c:\Program Files(**x86**)\Java

If you find "jreX.X.X_XXX" in the former, your java is 64-bit, and vice versa.

Now, we are ready to download the installer,

click accept



Click here to download

- amd64 for 64-bit.
- i586 for 32-bit (x86).

Double click the installer and follow the instruction. The installer creates a new folder, Java3D, in a Java folder,

64-bit c:\Program Files(x86)\Java\Java3D

32-bit c:\Program Files\Java\Java3D

In this folder, you will find three jarfiles,

Java3D\1.5.1\lib\ext\

j3dcore.jar

j3dutil.jar

vecmath.jar

Copy these three jarfiles to an extension folder of JRE,

Java\jre1.x.x_xxx\lib\ext

2.2. Mac OSX

Unfortunately, Java3D of ORACLE doesn't work for Max OSX. Instead, we use Java3D wrapper of JogAmp. Goto <http://jogamp.org>,



click here

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

Main Page

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

click here

Getting Started

- [Downloading and installing](#)
- [Versioning and Releases](#)
- [Setting up a JogAmp project in your favorite IDE](#)
- [Source Code Repositories](#)
- [Tracking Reports](#)
- [Build and Test Server](#)

Community

- [Contribute to JogAmp](#)
- [Build JogAmp](#)
- [Maintainer and Contacts](#)
- [Report a bug](#)
 - [Bugzilla](#)
- [Ask a question in the forum](#)
- [JogAmp IRC](#)

Downloading and installing JOGL

Before you can build a project that uses JOGL [in your IDE](#) or [on the command line](#), you'll need to download and install the JOGL JAR files and native JARs or native library files (.dll/.so/.jnilib files).

You have a choice of JOGL versions to download. The [latest stable version](#) is the safest, but lags behind in features. The [latest automatic build](#) contains all checked-in code, but may be failing some tests.

Contents [hide]

- 1 Downloading the latest stable version
 - 1.1 Using the 7z jogamp-all-platforms archive
- 2 Downloading the latest aggregated autobuild
- 3 Downloading the latest automatic build
 - 3.1 Native JARs vs. native library files
 - 3.2 Unzipping the files
- 4 Maven
- 5 More information

Downloading the latest stable version

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

[jogamp-all-platforms.7z](#)

Go back to the Main page and scroll down

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 just downloaded. 7z files can be unarchived using, for example, “The Unarchiver”. It’s a free program.



The Unarchiver
MacPaw Inc.

Then, copy the jar files to an extension folder:

```
>sudo cp jogamp-all-platforms/jar/*.jar /Library/Java/Extensions/  
>sudo cp jogamp-java3d/*.jar /Library/Java/Extensions/
```

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.

Then, copy the jarfile to the extension folder as before.

4. Test JSindo

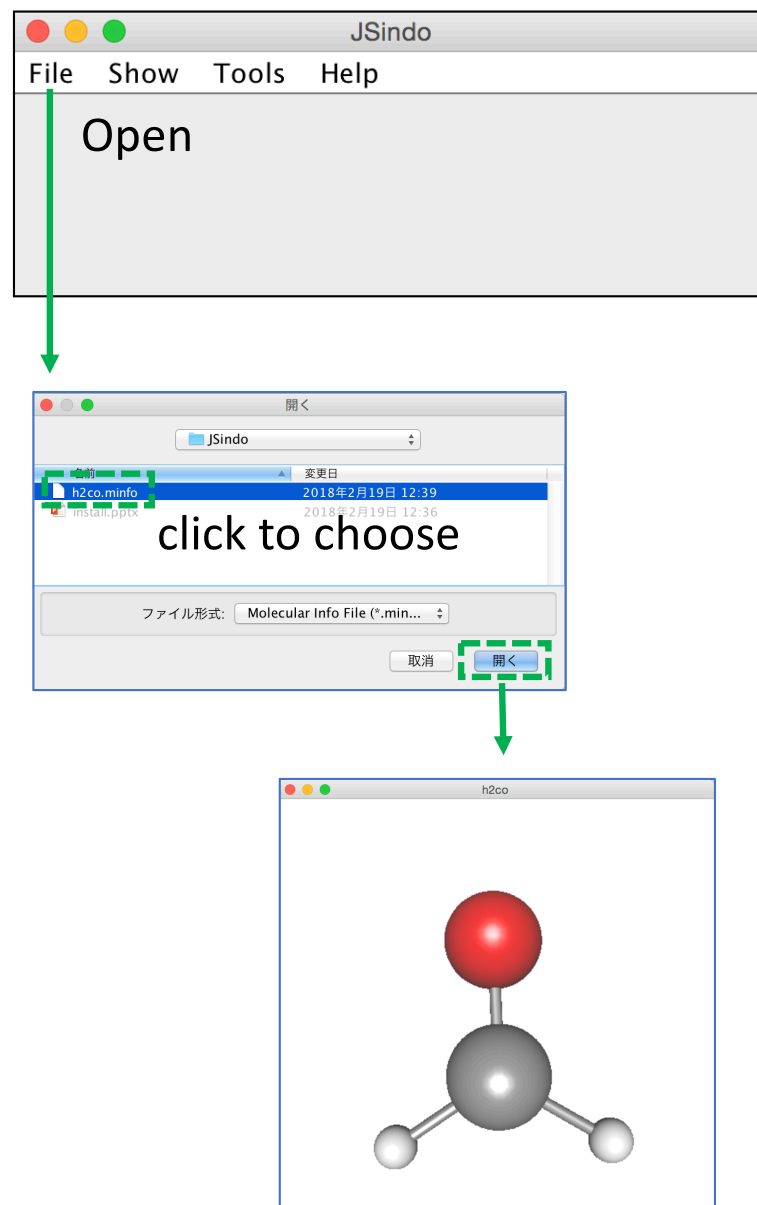
Now, double click JSindo-4.0_xxxxxx.jar. You should see a control panel of JSindo.

If you don't see the panel, review the installation of Java.

Let's open "h2co.minfo", which comes with this document. It contains data of formaldehyde.

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 Java3D has a problem. Double check if the jarfiles are copied to the extension folder.



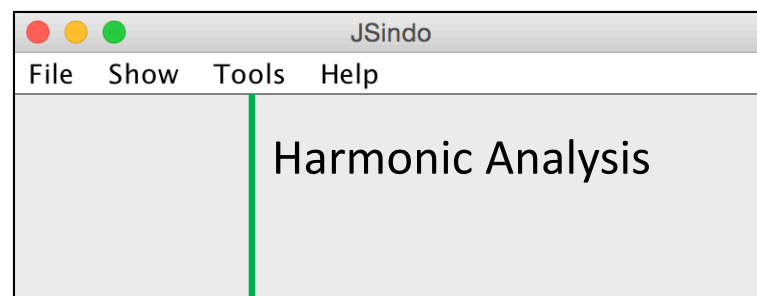
Finally, goto Tools -> Harmonic Analysis. This should create a “Normal modes” panel.

If you don't see this panel, JAMA isn't working. Check if the jarfile of JAMA is placed in the right folder.

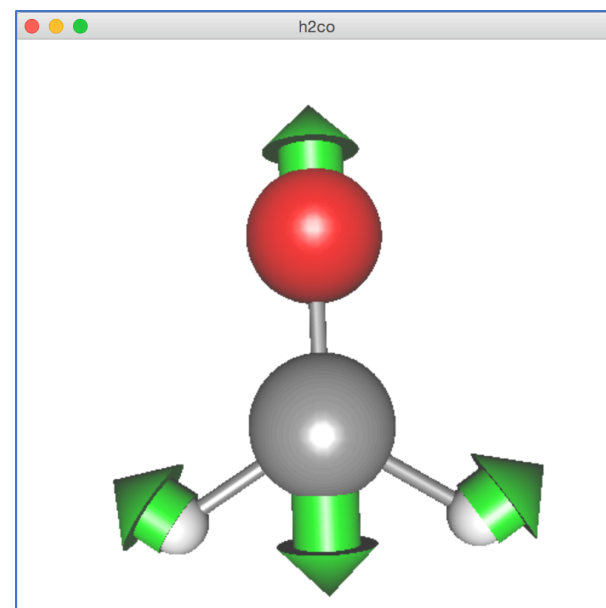
If the panel appears, you're all set! Congradulations!

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!

A screenshot of the "Normal modes (h2co)" window. It contains a table with 4 columns: Mode, Frequency (cm...), Reduced Mass (...), and Intensity (km m...). There are 6 rows of data. Below the table are two checkboxes: "Show vibrational coordinates." and "Invert the arrows.", and a slider bar.

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



FAQ

1. I want to use JSindo from a command line.

You may use the following command:

```
> java -cp /path/to/JSindo-4.0_xxxxxx.jar JSindo
```

Alternatively, you may set an environment variable, CLASSPATH

```
> export CLASSPATH=${CLASSPATH}:/path/to/JSindo-4.0_xxxxxx.jar
```

```
> setenv CLASSPATH ${CLASSPATH}:/path/to/JSindo-4.0_xxxxxx.jar
```

in bash or csh/tcsh. Then, you can start JSindo simply by,

```
> java JSindo
```

2. I cannot or don't want to copy jarfiles into a system extension folder.

In principle, you can specify all jarfiles using ":" as a separator,

```
> java -cp JSindo-4.0_xxxxxx.jar:Jama-1.0.3.jar:... JSindo
```

However, you don't want to type all jarfiles everytime. So, I would set the CLASSPATH for all jarfiles in ~/.bashrc, for example,

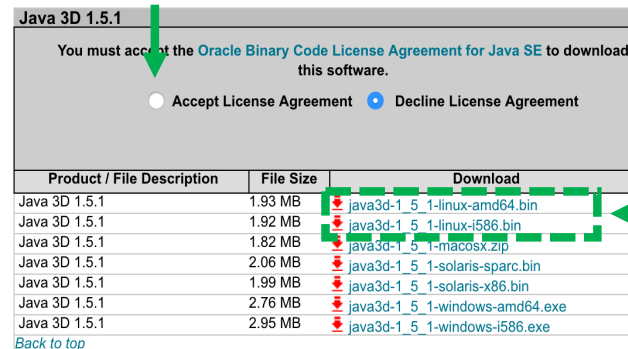
```
> export CLASSPATH=${CLASSPATH}:/path/to/JSindo-4.0_xxxxxx.jar  
> export CLASSPATH=${CLASSPATH}:/path/to/Jama-1.0.3.jar  
...
```

There are so many jarfiles (JogAmp, in particular), but I suppose it's still doable.

3. What about Linux?

As far as I know, Java3D of ORACLE works for most distribution. Check your java architecture (32-bit or 64-bit), and download the installer from ORACLE.

click accept



Product / File Description	File Size	Download
Java 3D 1.5.1	1.93 MB	java3d-1_5_1-linux-amd64.bin
Java 3D 1.5.1	1.92 MB	java3d-1_5_1-linux-i586.bin
Java 3D 1.5.1	1.82 MB	java3d-1_5_1-macosx.zip
Java 3D 1.5.1	2.06 MB	java3d-1_5_1-solaris-sparc.bin
Java 3D 1.5.1	1.99 MB	java3d-1_5_1-solaris-x86.bin
Java 3D 1.5.1	2.76 MB	java3d-1_5_1-windows-amd64.exe
Java 3D 1.5.1	2.95 MB	java3d-1_5_1-windows-i586.exe

[Back to top](#)

Click here to download

- amd64 for 64-bit.
- i586 for 32-bit (x86).

Then, follow the same procedure as in Windows.