
THE GEORGE
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Install Java & jGRASP on Mac, Windows & Linux

CSCI 1111 Lab 0

August 26, 2019

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Install Java on Mac, Windows & Linux

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Install jGRASP on Mac, Windows & Linux



Part 01

Install Java

- Mac
- Windows
- Linux



Install Java on Mac

- Go to the link below to download Java JDK:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk10-downloads-4416644.html>

Java SE Development Kit 10 Downloads

Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, and components using the Java programming language.

The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

See also:

- [Java Developer Newsletter](#): From your Oracle account, select **Subscriptions**, expand **Technology**, and subscribe to **Java**.
- [Java Developer Day hands-on workshops \(free\) and other events](#)
- [Java Magazine](#)

[JDK 10.0.2 checksum](#)

Java SE Development Kit 10.0.2

You must accept the [Oracle Binary Code License Agreement for Java SE](#) to download this software.

Accept License Agreement Decline License Agreement

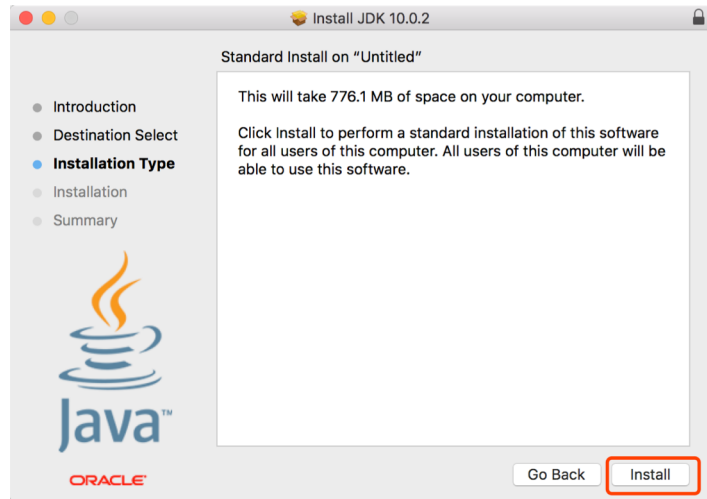
Product / File Description	File Size	Download
Linux	306 MB	jdk-10.0.2_linux-x64_bin.rpm
Linux	338.43 MB	jdk-10.0.2_linux-x64_bin.tar.gz
macOS	395.46 MB	jdk-10.0.2_osx-x64_bin.dmg
Solaris SPARC	207.07 MB	jdk-10.0.2_solaris-sparcv9_bin.tar.gz
Windows	390.25 MB	jdk-10.0.2_windows-x64_bin.exe

- Open the downloaded dmg package and double click the JDK.pkg:

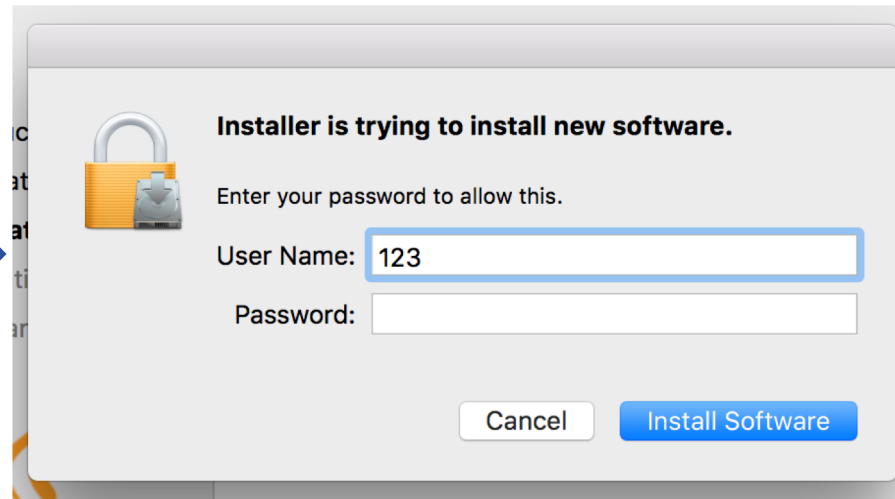


Install Java on Mac

Click "Install"



Input username and password



Install Succeeded



Open a terminal and input the command below to check your Java version:

```
zhangchengcarl — -bash — 80x24
Last login: Thu Aug 23 23:59:31 on ttys000
[MacBook-Pro-9:~]$ javac -version
javac 10.0.2
[MacBook-Pro-9:~]$ java -version
java version "10.0.2" 2018-07-17
Java(TM) SE Runtime Environment 18.3 (build 10.0.2+13)
Java HotSpot(TM) 64-Bit Server VM 18.3 (build 10.0.2+13, mixed mode)
```

Install Java on Windows

- Go to the link below to download Java JDK:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk10-downloads-4416644.html>

Java SE Development Kit 10.0.2
You must accept the [Oracle Binary Code License Agreement for Java SE](#) to download this software.

Accept License Agreement Decline License Agreement

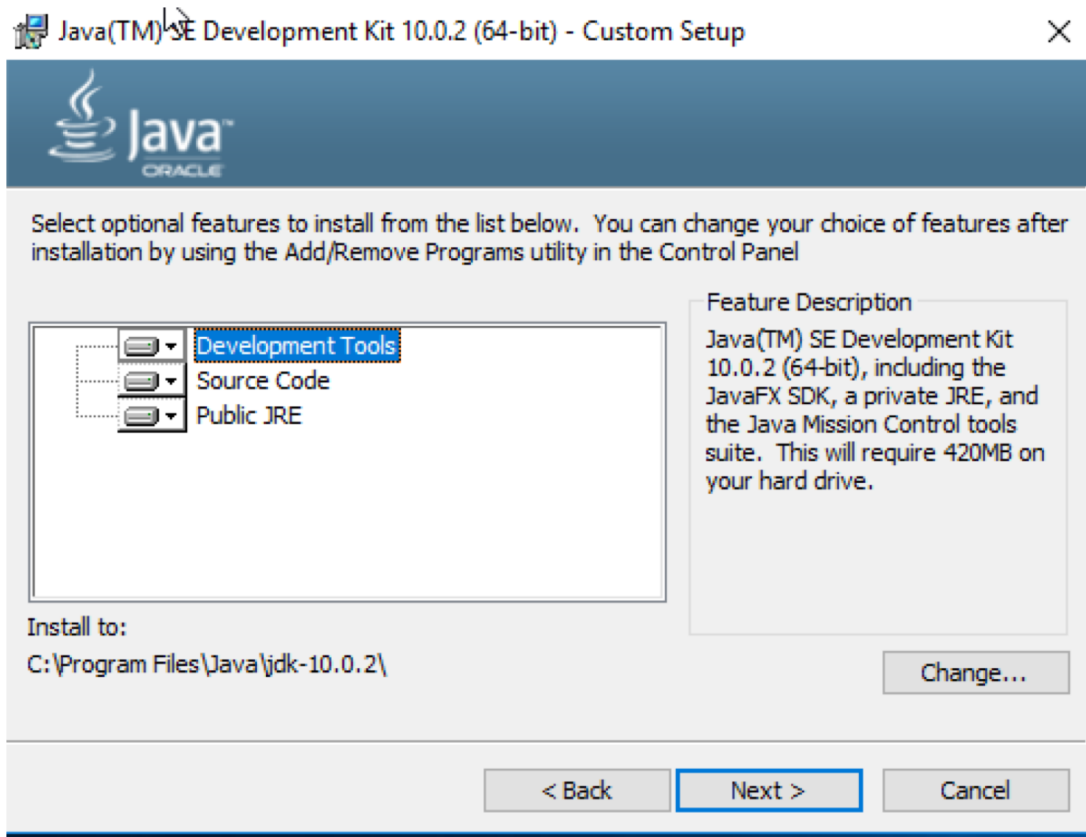
Product / File Description	File Size	Download
Linux	306 MB	jdk-10.0.2_linux-x64_bin.rpm
Linux	338.43 MB	jdk-10.0.2_linux-x64_bin.tar.gz
macOS	395.46 MB	jdk-10.0.2_osx-x64_bin.dmg
Solaris SPARC	207.07 MB	jdk-10.0.2_solaris-sparcv9_bin.tar.gz
Windows	390.25 MB	jdk-10.0.2_windows-x64_bin.exe

- Double click the downloaded package, wait for few seconds you will see this window, then click "Next"

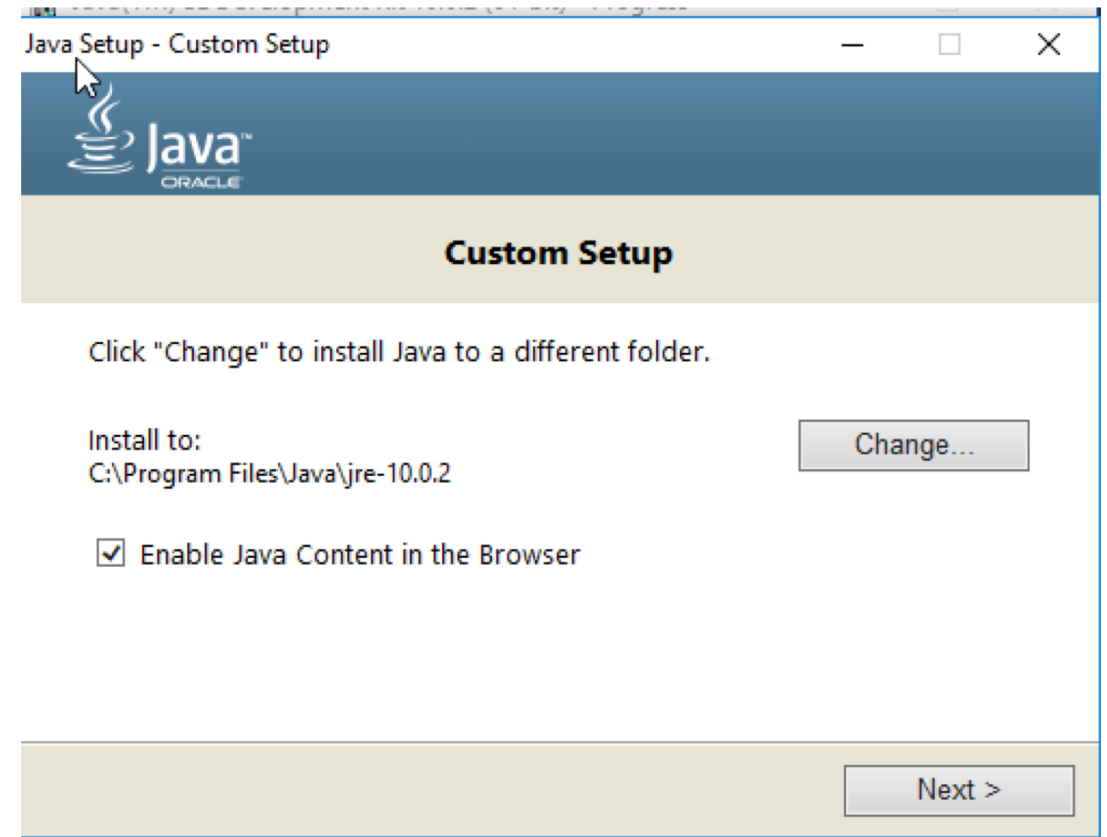


Install Java on Windows

- Use the default value, then click “Next”



- Use the default path, then click “Next”



Install Java on Windows

- **Installing**

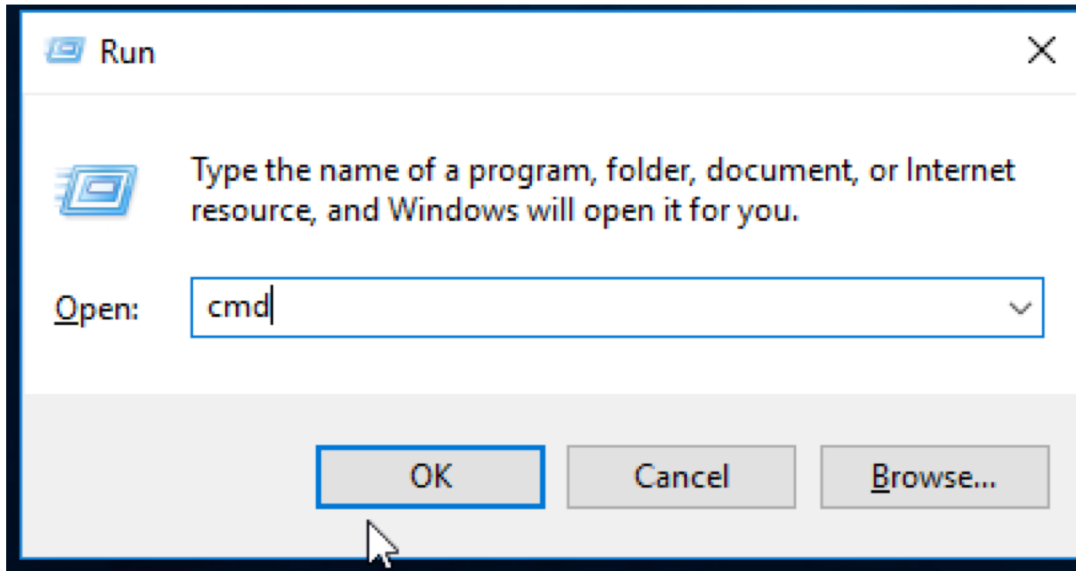


- **Finished!**

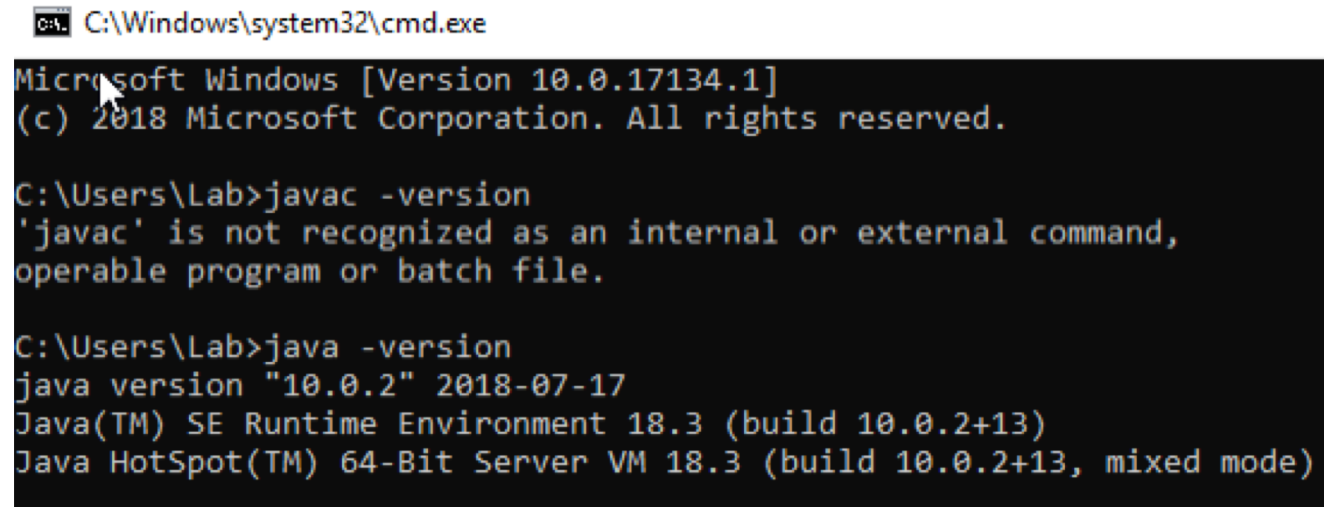


Install Java on Windows

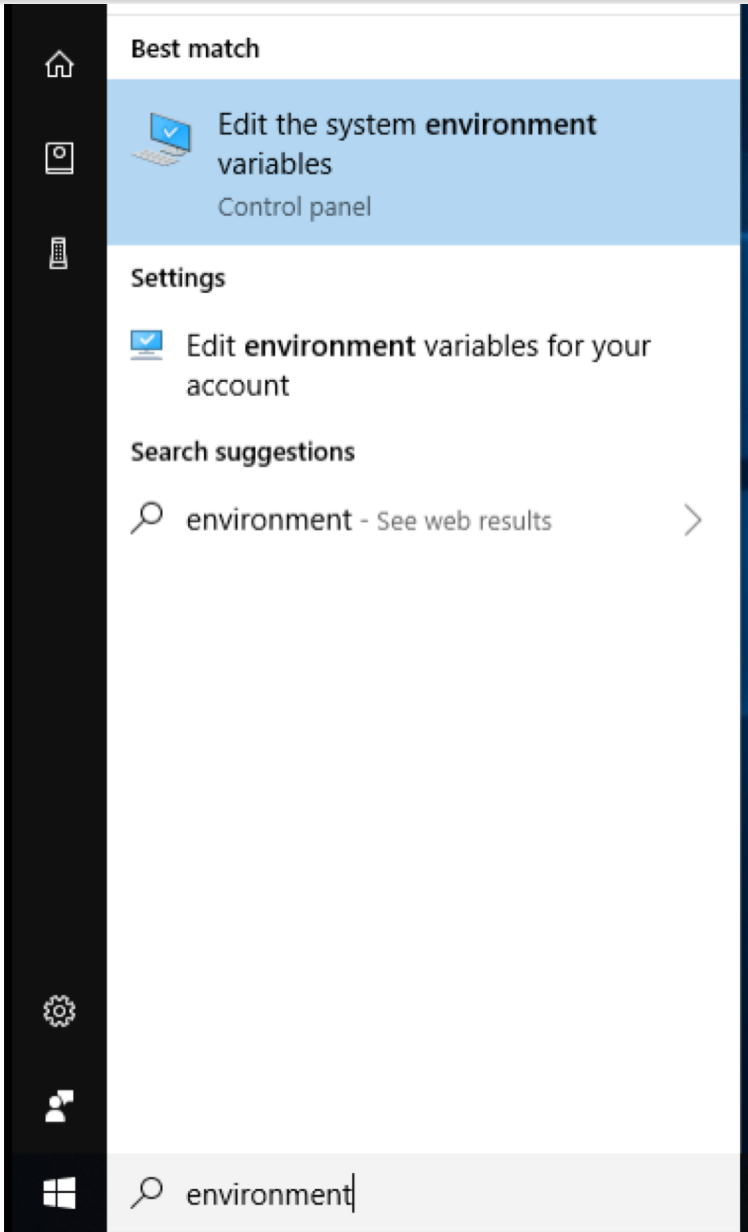
- Press “Win +R” and input “cmd” to open a terminal



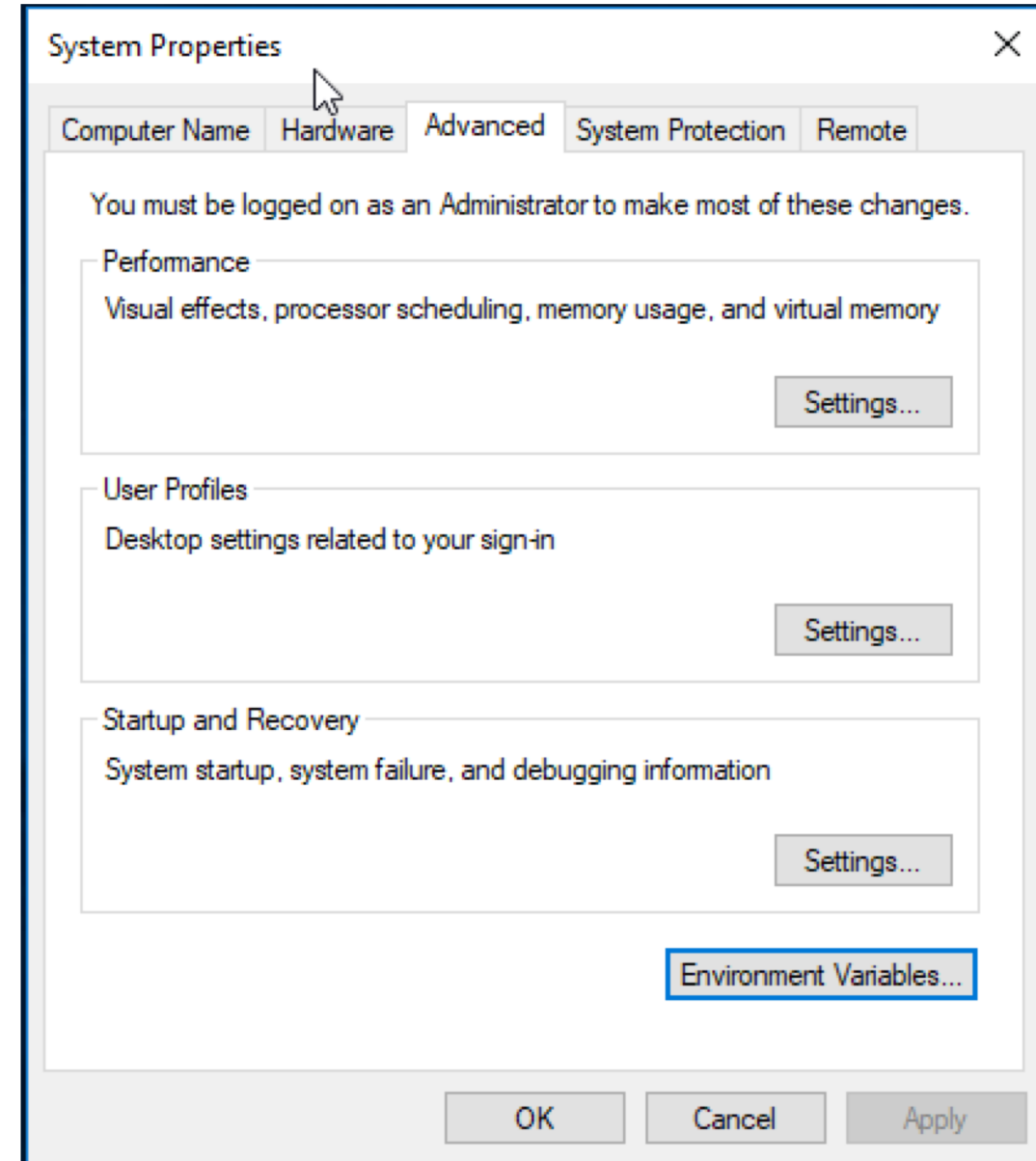
- You will find that “javac” doesn’t work, we need to add javac path to system environment.



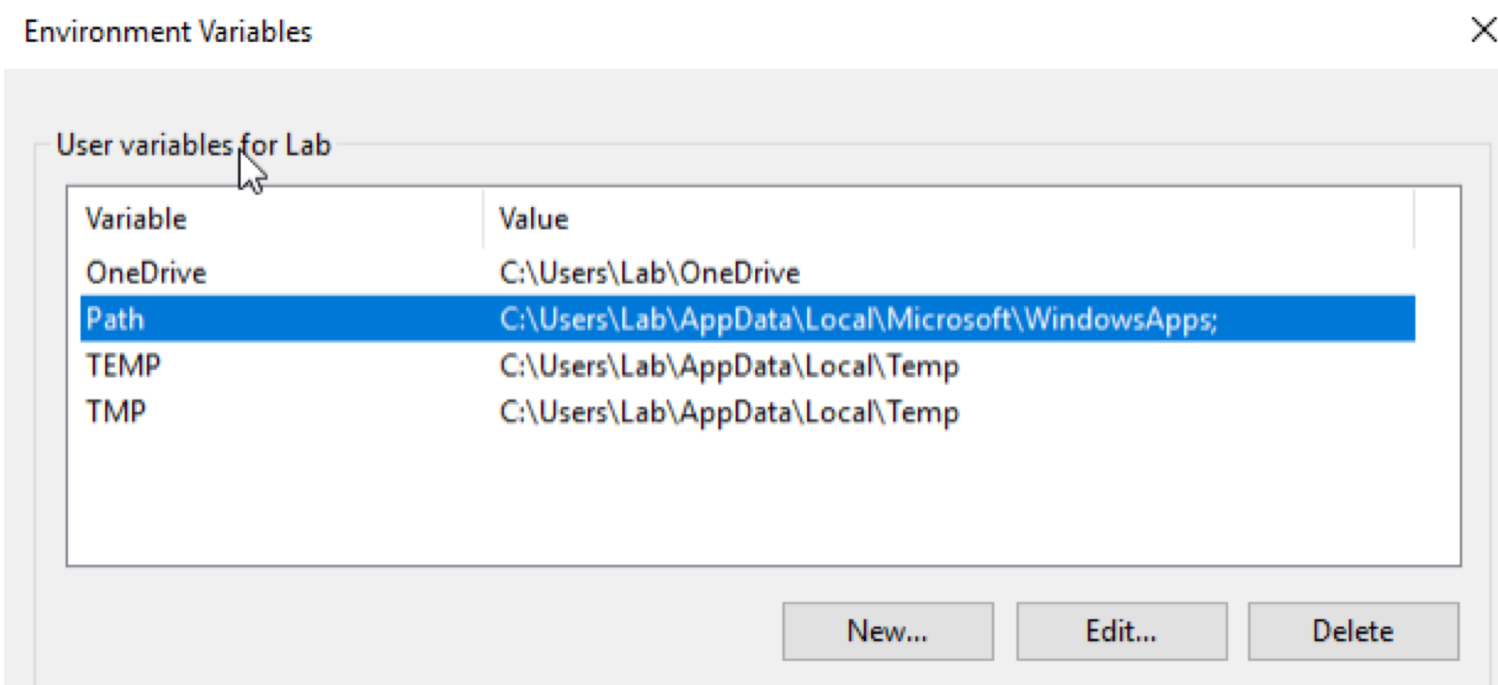
Install Java on Windows



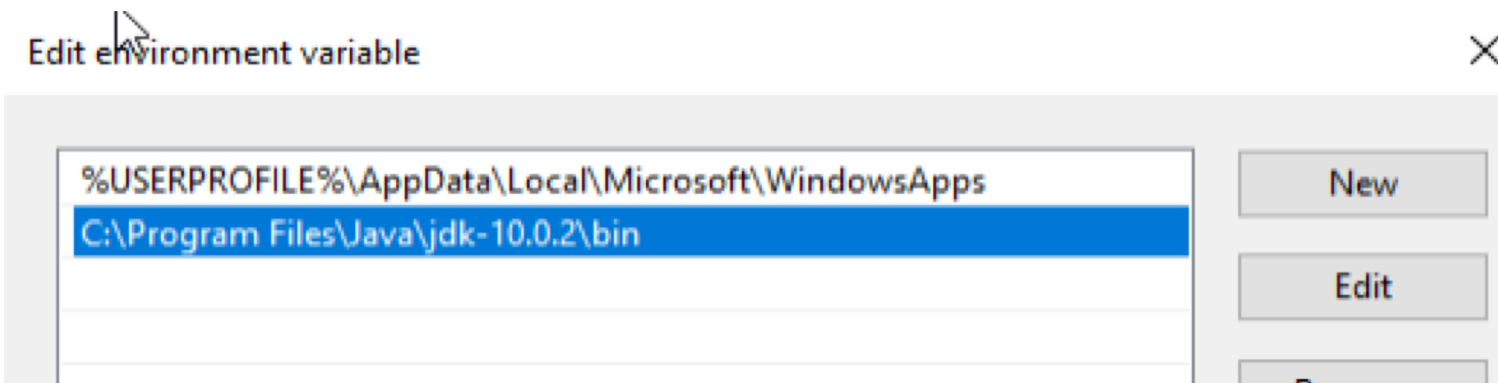
- Click the "Windows" icon and input "environment", you will see the setting as shown on the left.
- Then click "Environment Variables"



Install Java on Windows



Double click "Path"



Click "New" and input the path:

C:\Program Files\Java\jdk-10.0.2\bin

If you changed the path during the JDK installation, you need to input the changed path

Install Java on Windows

Run the terminal again and check the "javac" and "java"

Command Prompt

```
Microsoft Windows [Version 10.0.17134.1]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Lab>javac -version
javac 10.0.2

C:\Users\Lab>java -version
java version "10.0.2" 2018-07-17
Java(TM) SE Runtime Environment 18.3 (build 10.0.2+13)
Java HotSpot(TM) 64-Bit Server VM 18.3 (build 10.0.2+13, mixed mode)

C:\Users\Lab>
```

Or you can follow this video to install JDK on Windows:
<https://www.youtube.com/watch?v=Wp6uS7CmivE>

Install Java on Linux

Use Ubuntu18.04 as an example:

- Open a terminal and input the commands:

`sudo add-apt-repository ppa:linuxuprising/java`

```
wings@wings: ~  
File Edit View Search Terminal Help  
wings@wings:~$ sudo add-apt-repository ppa:linuxuprising/java  
[sudo] password for wings:  
Oracle Java 10 installer  
Java binaries are not hosted in this PPA due to licensing. The packages in this  
PPA download and install Oracle Java 10 (JDK 10), so a working Internet connecti  
on is required.  
The packages in this PPA are based on the WebUpd8 Oracle Java PPA packages: http  
s://launchpad.net/~webupd8team/+archive/ubuntu/java  
Created for users of https://www.linuxuprising.com/
```

`sudo apt-get update`

```
wings@wings:~$ sudo apt-get update  
[sudo] password for wings:  
Ign:1 http://dl.google.com/linux/chrome/deb stable InRelease  
Ign:2 http://downloads.skewed.de/apt/DISTRIBUTION DISTRIBUTION InRelease  
Hit:3 http://us.archive.ubuntu.com/ubuntu bionic InRelease  
Get:4 http://security.ubuntu.com/ubuntu bionic-security InRelease [83.2 kB]  
Err:5 http://downloads.skewed.de/apt/DISTRIBUTION DISTRIBUTION Release  
404 Not Found [IP: 74.50.54.68 80]  
Get:6 http://us.archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7 kB]  
Hit:7 http://dl.google.com/linux/chrome/deb stable Release
```

`sudo apt-get install oracle-java10-installer`

Input "Y" and press Enter to continue

```
wings@wings:~$ sudo apt-get install oracle-java10-installer
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  ca-certificates-java fonts-dejavu-extra libatk-wrapper-java
  libatk-wrapper-java-jni linux-headers-4.15.0-30
  linux-headers-4.15.0-30-generic linux-image-4.15.0-30-generic
  linux-modules-4.15.0-30-generic linux-modules-extra-4.15.0-30-generic
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  gsfontr-x11 oracle-java10-set-default
Suggested packages:
  visualvm ttf-baekmuk | ttf-unfonts | ttf-unfonts-core ttf-kochi-gothic
  | ttf-sazanami-gothic ttf-kochi-mincho | ttf-sazanami-mincho
  ttf-arphic-uming
The following NEW packages will be installed:
  gsfontr-x11 oracle-java10-set-default
The following packages will be upgraded:
  oracle-java10-installer
1 upgraded, 2 newly installed, 0 to remove and 205 not upgraded.
1 not fully installed or removed.
Need to get 0 B/39.0 kB of archives.
After this operation, 229 kB of additional disk space will be used.
Do you want to continue? [Y/n]
```

Press Enter to continue



Install Java on Linux

Select "Yes" and press Enter to continue

```
Configuring oracle-java10-installer

In order to install this package, you must accept the license terms, the
"Oracle Binary Code License Agreement for the Java SE Platform Products
and JavaFX ". Not accepting will cancel the installation.

Do you accept the Oracle Binary Code license terms?

<Yes> <No>
```

Install finished!

```
wings@wings: ~
File Edit View Search Terminal Help
-9-oracle/lib/jexec found, but continuing anyway as you request
update-binfmts: warning: current package is oracle-java9, but binary format already installed by openjdk-11
Oracle JDK 10 installed

#####Important#####
To set Oracle jdk10 as default, install the "oracle-java10-set-default" package.
E.g.: sudo apt install oracle-java10-set-default.
Selecting previously unselected package oracle-java10-set-default.
Processing triggers for desktop-file-utils (0.23-1ubuntu3) ...
(Reading database ... 255439 files and directories currently installed.)
Preparing to unpack ../oracle-java10-set-default_10.0.2-1-linuxuprising+2_amd64.deb ...
Unpacking oracle-java10-set-default (10.0.2-1-linuxuprising+2) ...
Selecting previously unselected package gsfonts-x11.
Preparing to unpack ../gsfonts-x11_0.25_all.deb ...
Unpacking gsfonts-x11 (0.25) ...
Setting up gsfonts-x11 (0.25) ...
Processing triggers for mime-support (3.60ubuntu1) ...
Setting up oracle-java10-set-default (10.0.2-1-linuxuprising+2) ...
Processing triggers for shared-mime-info (1.9-2) ...
Processing triggers for gnome-menus (3.13.3-11ubuntu1) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for fontconfig (2.12.6-0ubuntu2) ...
```

Check your Java version:

```
wings@wings:~$ javac -version
javac 10.0.2
wings@wings:~$ java -version
java version "10.0.2" 2018-07-17
Java(TM) SE Runtime Environment 18.3 (build 10.0.2+13)
Java HotSpot(TM) 64-Bit Server VM 18.3 (build 10.0.2+13, mixed mode)
wings@wings:~$ █
```

Reference:

<https://stackoverflow.com/questions/49507160/how-to-install-jdk-10-under-ubuntu>

Part 02

Install jGRASP

- Mac
- Windows
- Linux
- Hello World



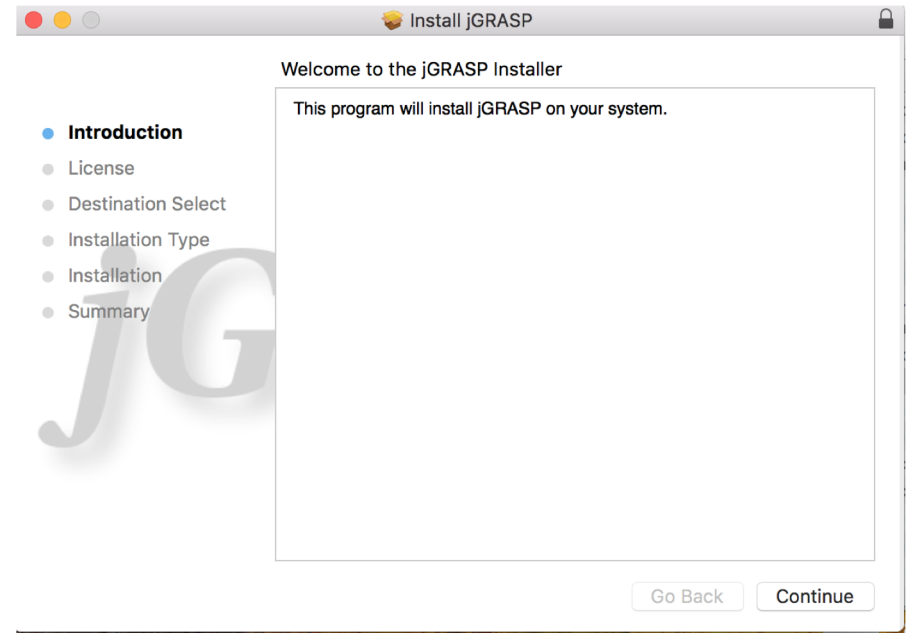
Install jGRASP on Mac

- Before installing jGRASP, to check the Java version in your computer(**requires Java 1.6 or higher**).
- Go to the link: https://spider.eng.auburn.edu/user-cgi/grasp/grasp.pl?;dl=download_jgrasp.html
- Select the package of your platform(download the 2nd pkg):

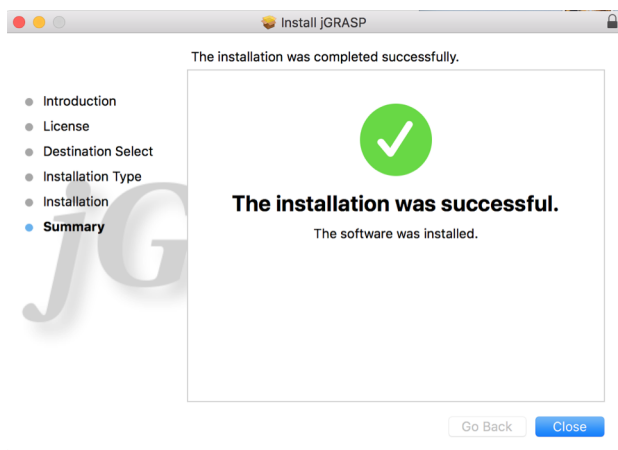
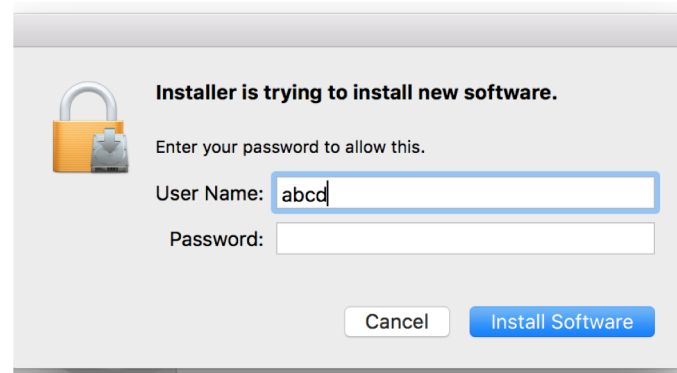
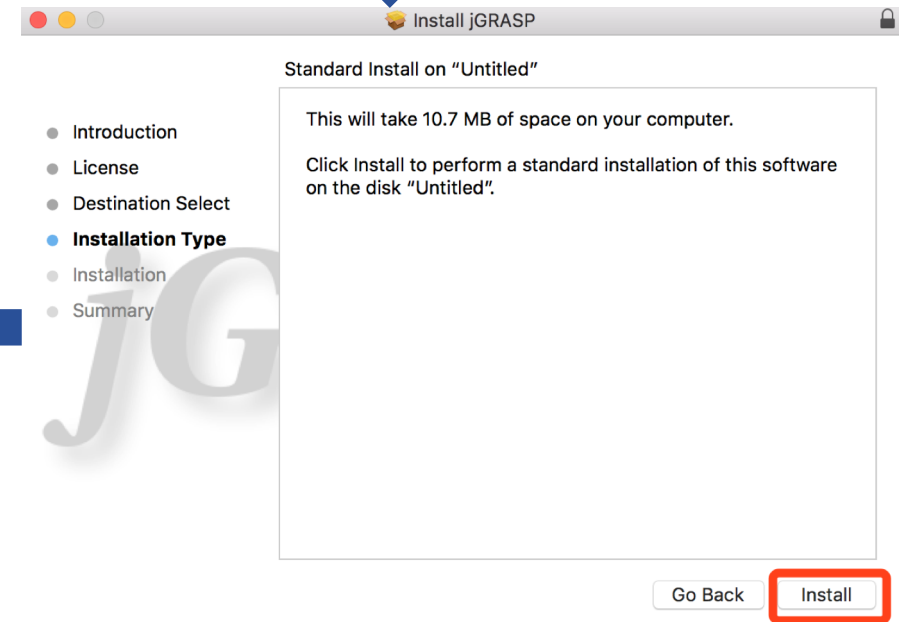
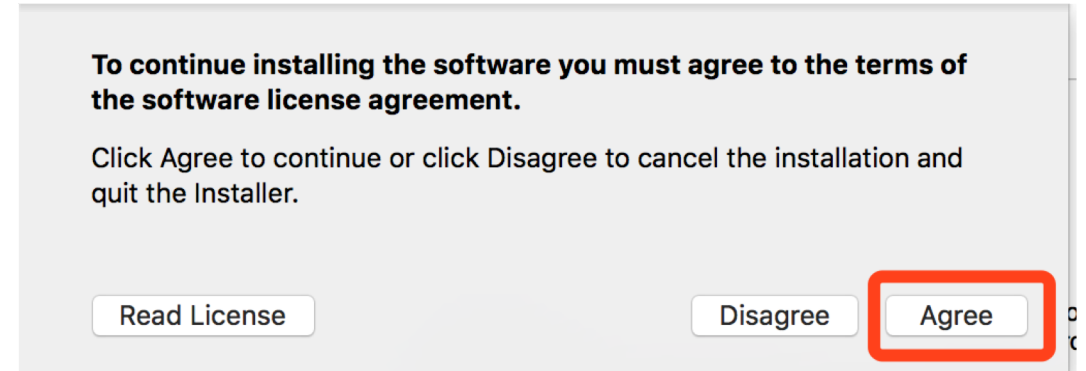
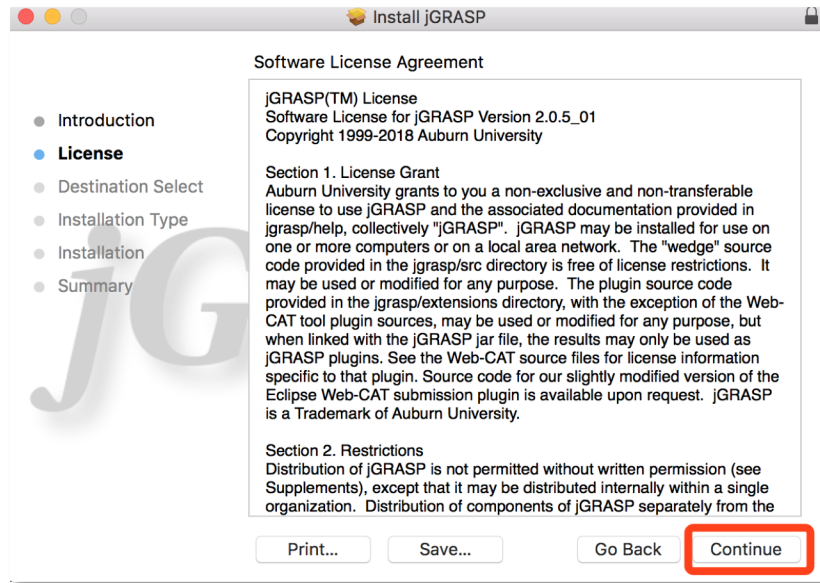
jGRASP 2.0.5_01 (August 16, 2018) - requires Java 1.6 or higher

- jGRASP exe** Windows (Vista or Higher): self-extracting executable (5,893,448 bytes).
- jGRASP pkg** Mac OS X: pkg install file (requires admin access to install) (6,899,475 bytes).
- jGRASP zip** Linux, UNIX, and other systems: zip file (7,142,797 bytes).

- Double click the package, click “Continue”.



Install jGRASP on Mac

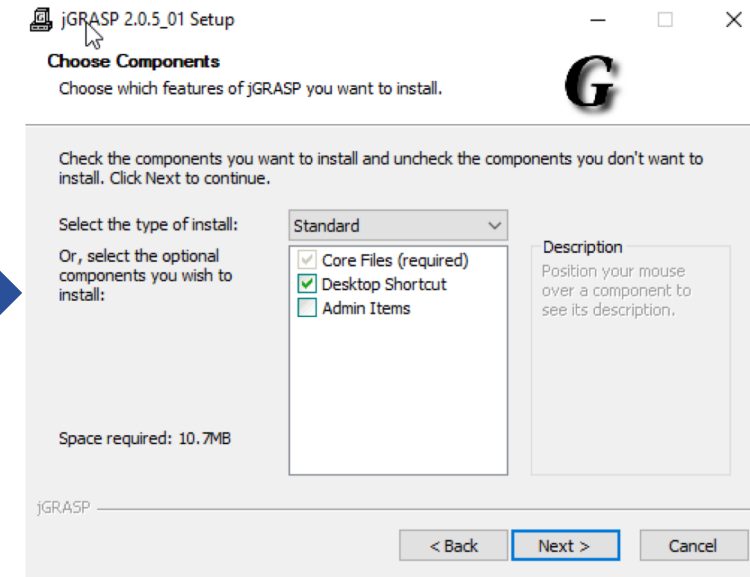
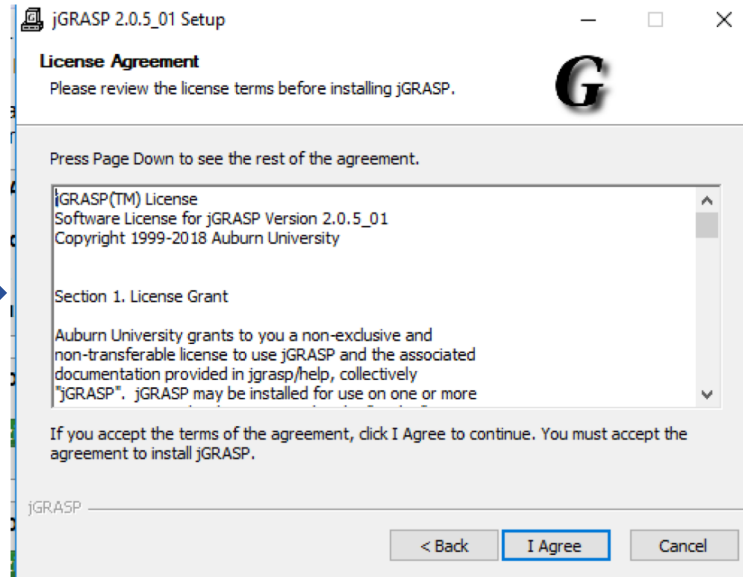
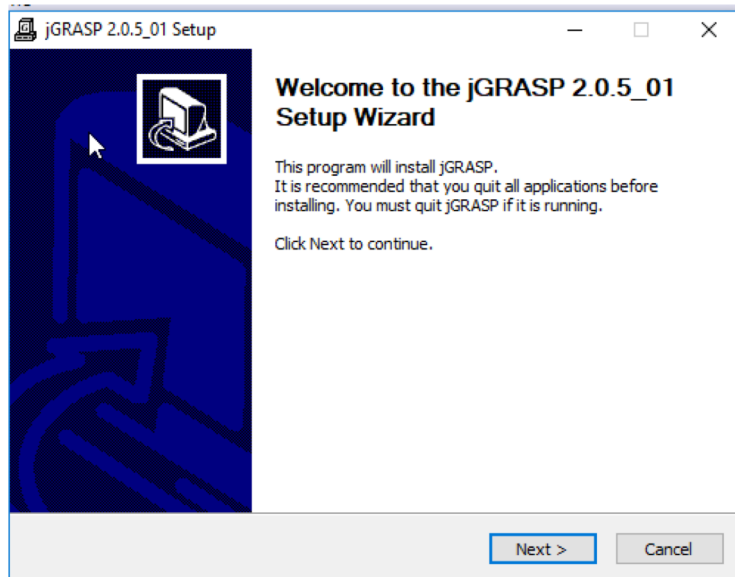


Install jGRASP on Windows

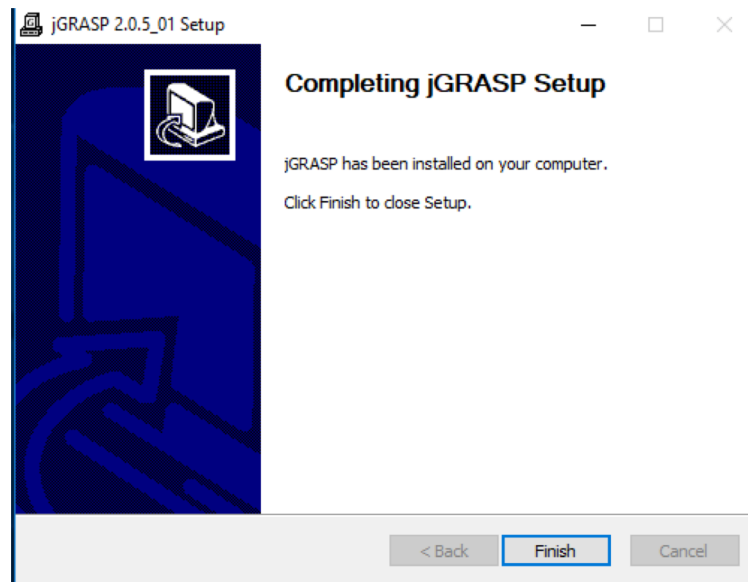
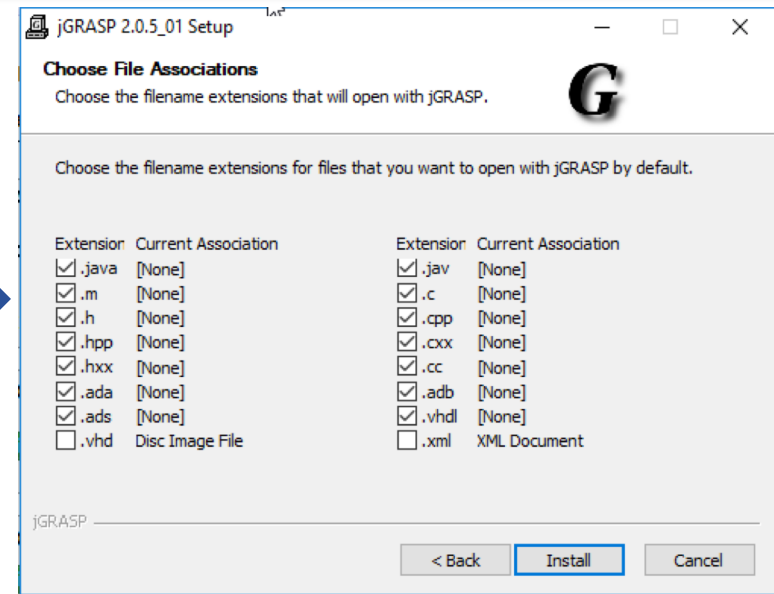
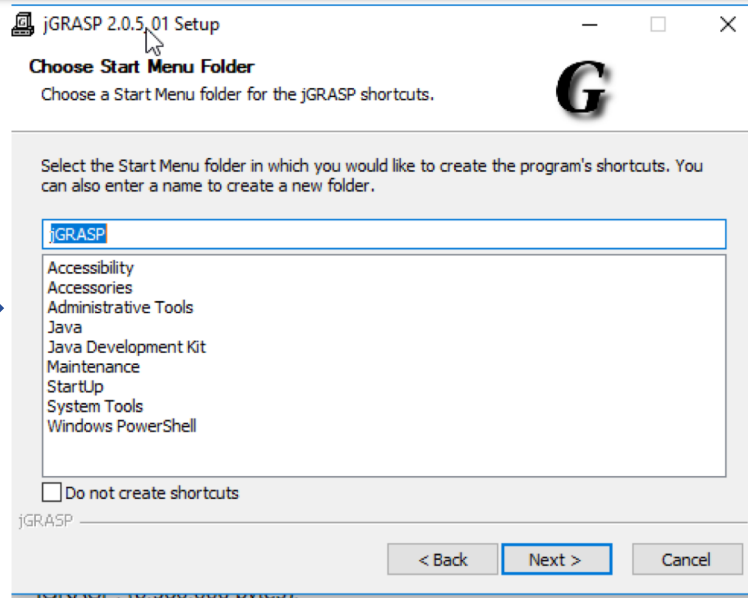
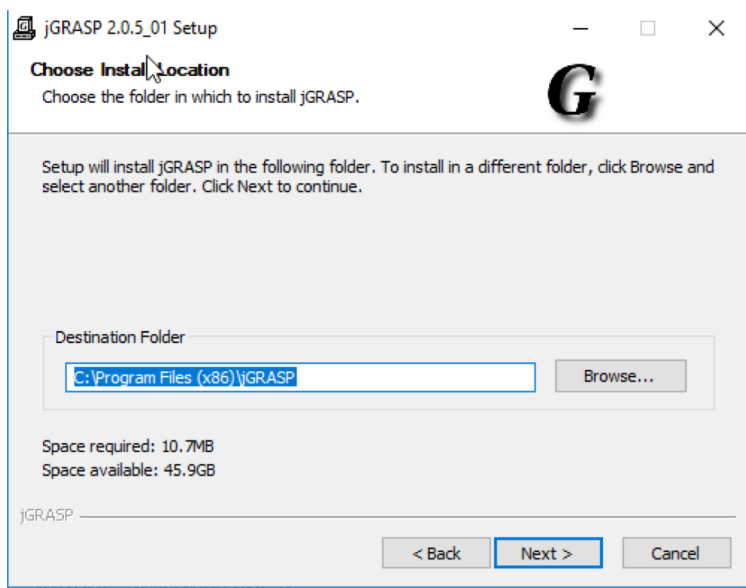
- Go to the link: https://spider.eng.auburn.edu/user-cgi/grasp/grasp.pl?;dl=download_jgrasp.html
- Select the package of your platform(download the 1st exe):

jGRASP 2.0.5_01 (August 16, 2018) - requires Java 1.6 or higher

- jGRASP exe** Windows (Vista or Higher): self-extracting executable (5,893,448 bytes).
- jGRASP pkg** Mac OS X: pkg install file (requires admin access to install) (6,899,475 bytes).
- jGRASP zip** Linux, UNIX, and other systems: zip file (7,142,797 bytes).



Install jGRASP on Windows



Install jGRASP on Linux

- Go to the link: https://spider.eng.auburn.edu/user-cgi/grasp/grasp.pl?;dl=download_jgrasp.html
- Select the package of your platform(download the 3rd zip):

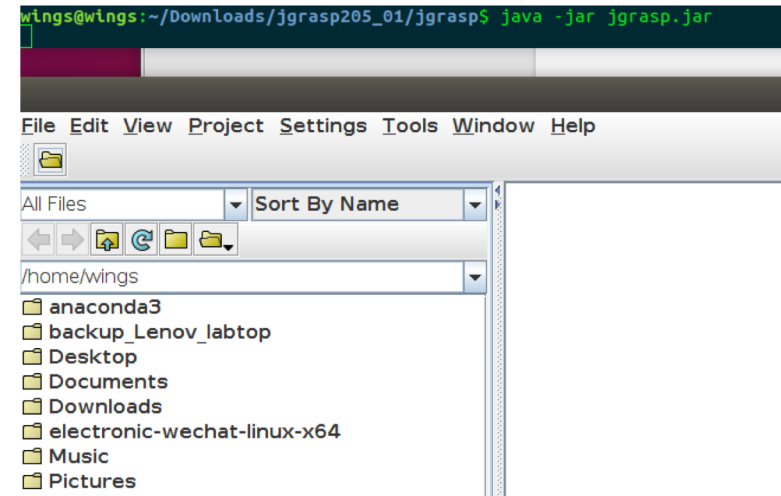
jGRASP 2.0.5_01 (August 16, 2018) - requires Java 1.6 or higher

- jGRASP exe** Windows (Vista or Higher): self-extracting executable (5,893,448 bytes).
- jGRASP pkg** Mac OS X: pkg install file (requires admin access to install) (6,899,475 bytes).
- jGRASP zip** Linux, UNIX, and other systems: zip file (7,142,797 bytes).

- install the lsb-core module with the command: **sudo apt-get install lsb-core**

```
wings@wings:~/Downloads/jgrasp205_01/jgrasp$ sudo apt-get install lsb-core
```

- Extract the .zip file you just downloaded to some permanent location. ~/jgrasp, ~/opt/jgrasp, or /usr/local/jgrasp would all be reasonable locations, but anything will do. cd into that directory
- run **java -jar jgrasp.jar**
- If all goes well, you should see this:



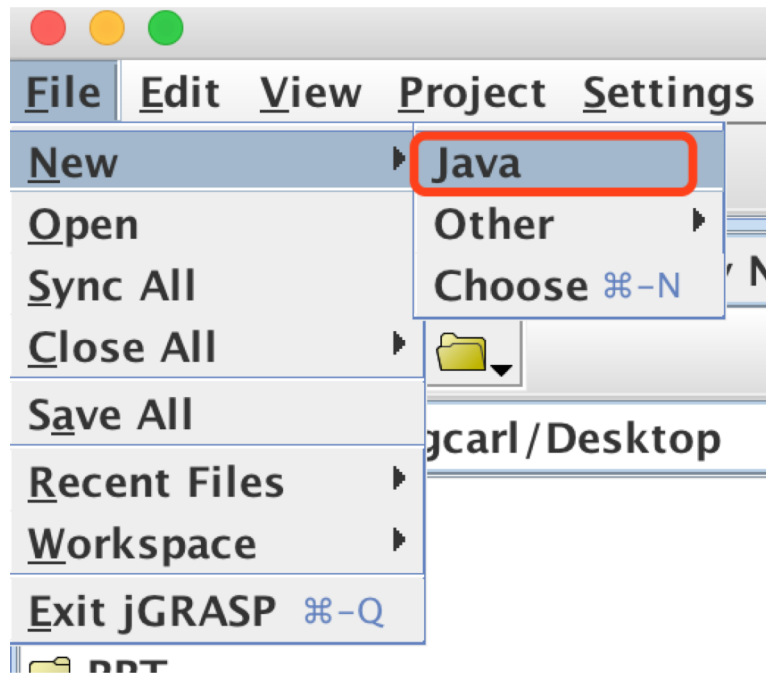
Part

03

Hello World!



- **Open the jGrasp and create a new file**

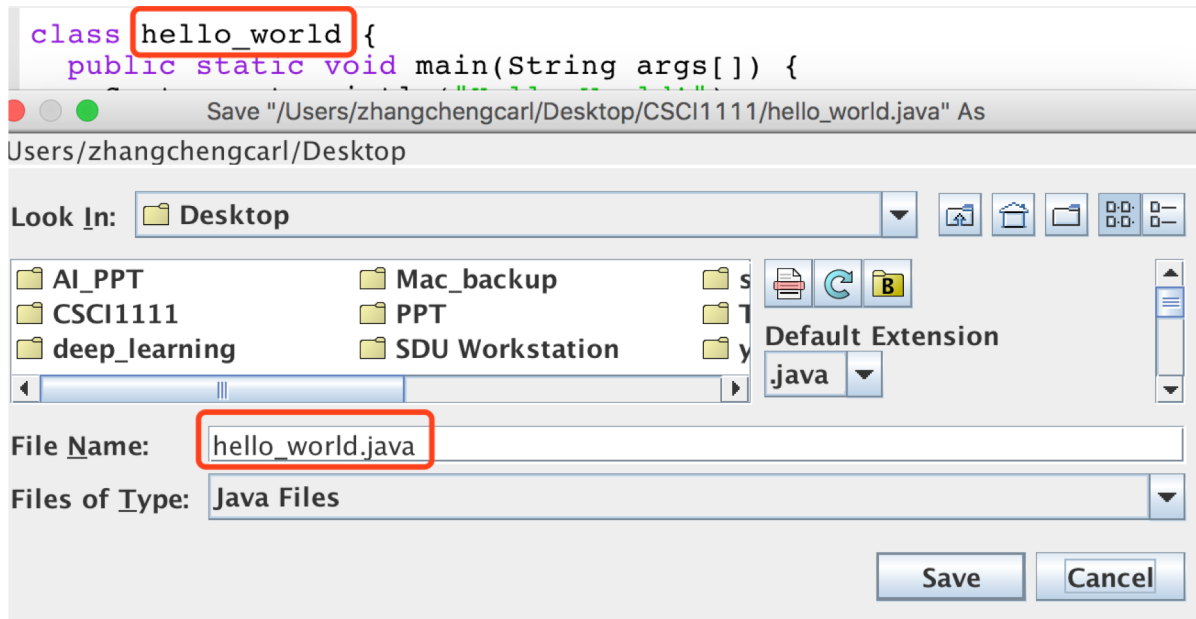


- **Input the code in the figure below**

```
class hello_world {  
    public static void main(String args[]) {  
        System.out.println("Hello World!");  
    }  
}
```

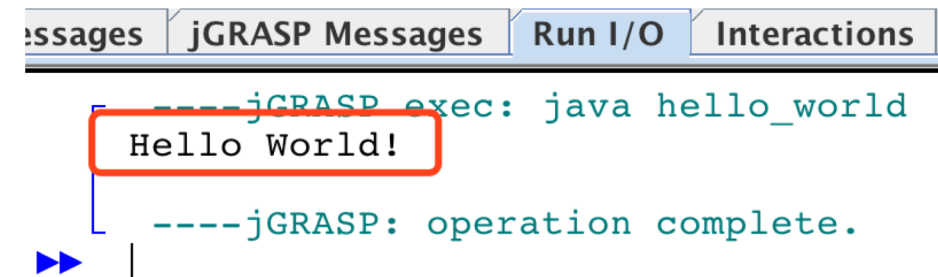
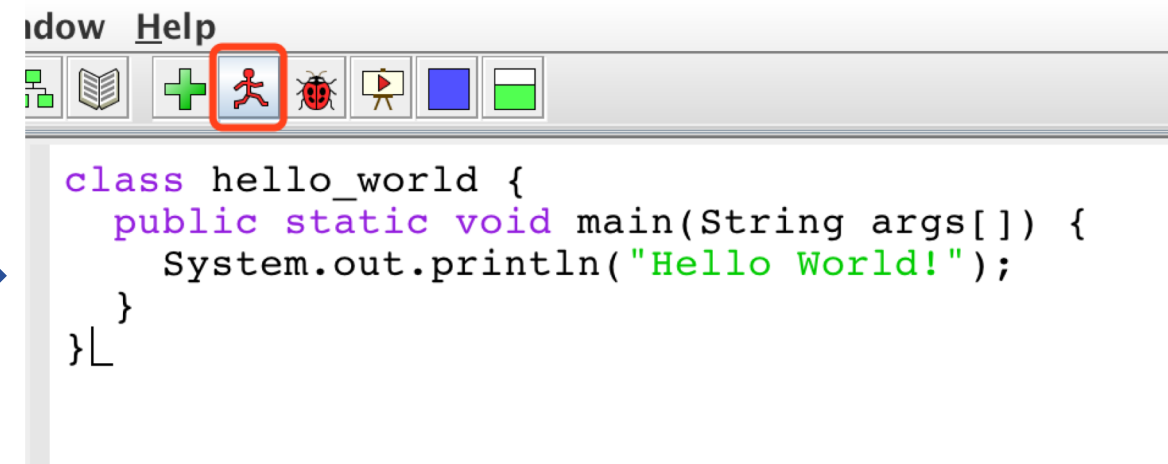

Hello World!

- Save the code, make sure the file name has the same name as the class name:



You will see the result if there were no bugs in the code:

- Click the red button to debug and run your code:



Thank You!

