


Start A Terminal Window



- 1] There are several ways to start a Terminal window; one of which is to start the Spotlight Search  at the top of your screen.
- 2] Enter Terminal → double click on the application.
- 3] The current version of Java is at least 1.12, or so. Scala requires version 8 (1.8). You might have to uninstall a more recent version.

```
sherryhicks -- -bash -- 80x9
Sherrys-Air:~ sherryhicks$ java -version
No Java runtime present, requesting install.
Sherrys-Air:~ sherryhicks$
```

- 4] Into the command window enter → **java -version** to see the current version, if any. My wife's macintosh, above, has no Java installed. In order to install scala, I would first have to install Java 1.8.

```
thicks -- -bash -- 80x7
Drs-MacBook-Pro:~ thicks$ java -version
java version "1.8.0_212"
Java(TM) SE Runtime Environment (build 1.8.0_212-b10)
Java HotSpot(TM) 64-Bit Server VM (build 25.212-b10, mixed mode)
Drs-MacBook-Pro:~ thicks$
```

- 5] My macbook pro has Java 1.8 installed; see the screen capture above. My system is ready to install Scala.
- 6] I was unsuccessful in my efforts to get Scala to install with Java 1.12.

Install Java JDK 8 (if necessary)

- 1] You must have JDK installed on your Mac. Install it first if necessary. If you have JDK installed, skip to the Scala install.

<https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

- 2] Navigate your browser to the link above.

Java SE Development Kit 8u212		
You must accept the Oracle Technology Network License Agreement for Oracle Java SE to download this software.		
Thank you for accepting the Oracle Technology Network License Agreement for Oracle Java SE ; you may now download this software.		
Product / File Description	File Size	Download
Linux ARM 32 Hard Float ABI	72.86 MB	jdk-8u212-linux-arm32-vfp-hflt.tar.gz
Linux ARM 64 Hard Float ABI	69.77 MB	jdk-8u212-linux-arm64-vfp-hflt.tar.gz
Linux x86	174.11 MB	jdk-8u212-linux-i586.rpm
Linux x86	188.92 MB	jdk-8u212-linux-i586.tar.gz
Linux x64	171.13 MB	jdk-8u212-linux-x64.rpm
Linux x64	185.98 MB	jdk-8u212-linux-x64.tar.gz
Mac OS X x64	252.25 MB	jdk-8u212-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	125.06 MB	jdk-8u212-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	88.15 MB	jdk-8u212-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	124.3 MB	jdk-8u212-solaris-x64.tar.Z
Solaris x64	85.41 MB	jdk-8u212-solaris-x64.tar.gz
Windows x86	202.64 MB	jdk-8u212-windows-i586.exe
Windows x64	215.26 MB	jdk-8u212-windows-x64.exe

- 3] Once you have accepted the license agreement, download the Mac version of the software to the desktop.



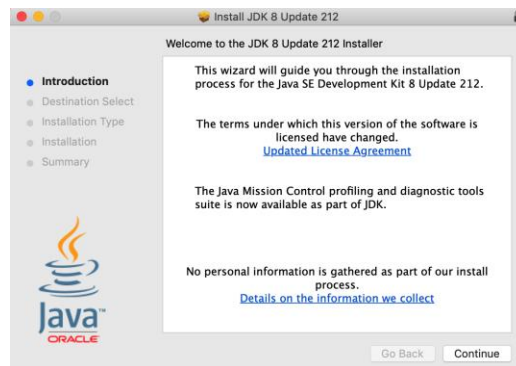
- 4] Using the mouse, double-click on the dmg file. This will open the java installer's folder. You may use any installer for 1.8 Java.



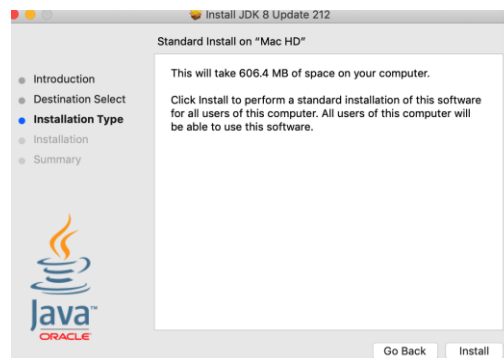
- 5] Using the mouse, double-click on the JDK 8 Update 212.



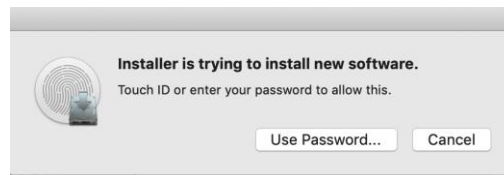
- 6] Using the mouse, double-click on the JDK 8 Update 212 installer.



- 7] Using the mouse, push the Continue button.



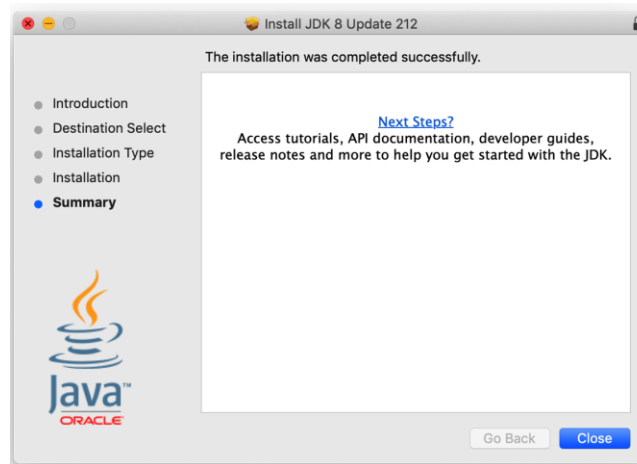
- 8] Using the mouse, push the Install button.



- 9] Using the mouse, push the Use Password button.



- 10] Enter your password. Using the mouse, push the Install Software button.



- 11] The software is installed, but you need to Restart your Mac at this time.

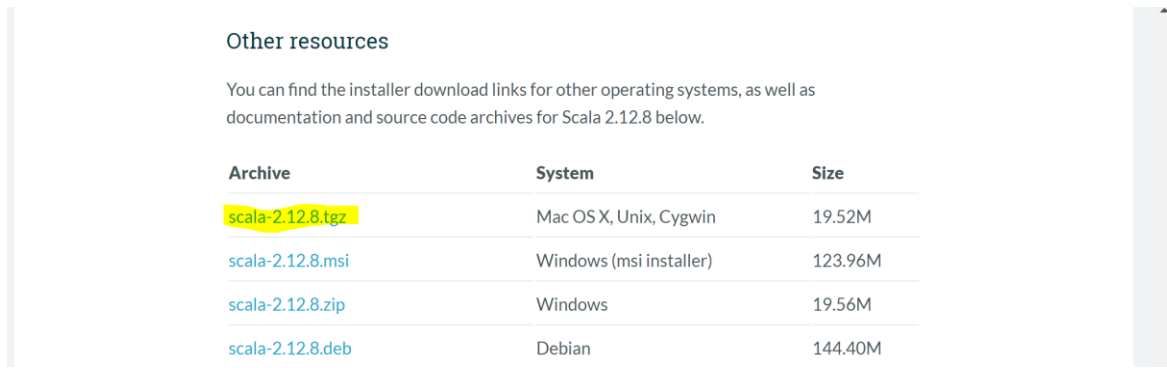
```
thicks -- -bash -- 80x7
Drs-MacBook-Pro:~ thicks$ java -version
java version "1.8.0_212"
Java(TM) SE Runtime Environment (build 1.8.0_212-b10)
Java HotSpot(TM) 64-Bit Server VM (build 25.212-b10, mixed mode)
Drs-MacBook-Pro:~ thicks$
```

- 12] After you restart, launch a terminal window and Start a terminal window. Enter **java -version** Confirm that you have some version 1.8.

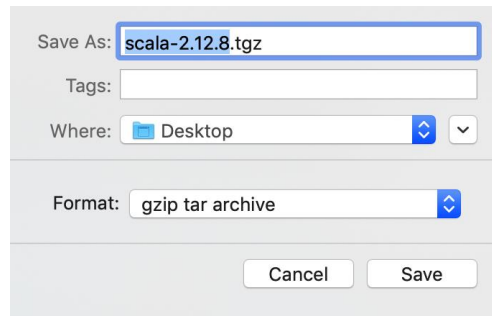
Install Scala

<https://scala-lang.org/download/>

- 1] Navigate your browser to the link above.



- 2] Under Other Resources, at the bottom of the page, get a copy of the Macintosh version of the software.



- 3] Download the file to your desktop.



- 4] Double-click on the file: (to unzip)



- 5] You can see the folder containing the application. It is on the Desktop.



- 6] Rename folder scala-2.12.8 → call it **scala**

```

thicks --- -bash --- 119x49
Drs-MacBook-Pro:~ thicks$ cd
Drs-MacBook-Pro:~ thicks$ ls
Applications          Downloads             Music
Applications (Parallels)  Dropbox             Parallels
Desktop               Library              Pictures
Documents             Movies                Public
Drs-MacBook-Pro:~ thicks$

```

- 7] Open a terminal window. Your files may be different than those above.
 Enter **cd**
 Enter **ls**

```

thicks --- -bash --- 110x14
Drs-MacBook-Pro:~ thicks$ sudo cp -R Desktop/scala /usr/local/scala
Drs-MacBook-Pro:~ thicks$

```

- 8] We want to copy the scala folder into the linux system.
 Enter **sudo cp -R Desktop/scala /usr/local/scala**

```

thicks --- -bash --- 119x27
Drs-MacBook-Pro:~ thicks$ ls -al
total 56
drwxr-xr-x+ 24 thicks staff 768 Apr 28 07:21 .
drwxr-xr-x  7 root  admin 224 Oct 25 2018 ..
-r-----  1 thicks staff  7 Apr 23 2018 .CFUserTextEncoding
-rw-r--r--@ 1 thicks staff 12292 Apr 28 07:08 .DS_Store
drwx----- 2 thicks staff  64 Apr 28 07:08 .Trash
-rw----- 1 thicks staff  39 Apr 27 09:18 .bash_history
drwx----- 13 thicks staff 416 Apr 27 09:21 .bash_sessions
drwx-----  3 thicks staff  96 Apr 25 2018 .cups
drwx----- 13 thicks staff 416 Apr 23 2018 .dropbox
drwxr-xr-x  3 thicks staff  96 Apr 28 06:48 .oracle_jre_usage
-rw-----  1 thicks staff 843 Apr 27 09:38 .viminfo
drwxr-xr-x  3 thicks staff  96 May 11 2018 .vmware
drwx-----@ 5 thicks staff 168 Apr 24 2018 Applications
drwx-----@ 4 thicks staff 128 Apr 28 06:26 Applications (Parallels)
drwx-----+ 12 thicks staff 384 Apr 28 07:06 Desktop
drwx-----+  6 thicks staff 192 Apr 27 08:31 Documents
drwx-----+  4 thicks staff 128 Apr 28 07:04 Downloads
drwx-----@ 13 thicks staff 416 Apr 28 05:59 Dropbox
drwx-----@ 71 thicks staff 2272 Apr  2 17:47 Library
drwx-----+  3 thicks staff  96 Apr 23 2018 Movies
drwx-----+  4 thicks staff 128 May 22 2018 Music
drwxr-xr-x  3 thicks staff  96 Apr 24 2018 Parallels
drwx-----+  4 thicks staff 128 Apr 25 2018 Pictures
drwxr-xr-x+  4 thicks staff 128 Apr 23 2018 Public
Drs-MacBook-Pro:~ thicks$

```

- 8] In order for us to successfully run Scala, we have to configure the path to all of the Scala files. This will be done by modifying a file, called **.bash_profile**. Once configured, this file will automatically load each time the use logs in. You may, or may not, have such a file. The file begins with a period → this means that it is a system file that is generally hidden from most file listings. In order to see if you have such a file, enter **ls -al**
- 9] As you can see above, I have no file called → **.bash_profile** → No Problem.
- 10] The instructions below, will use the vi editor to add a line to the bottom of this file. You may use any editor you like. The reason for using the vi editor is that the instructions are the same → whether or not you have file **.bash_profile**

```

thicks --- -bash --- 119x27
Drs-MacBook-Pro:~ thicks$ vi .bash_profile

```

- 11] Enter **vi .bash_profile**

```

thicks --- vi .bash_profile --- 104x10

```

- 12] Enter **A ←** to enter Input Mode at the end of the file

```
thicks -- vi .bash_profile -- 134x11
export PATH=/usr/local/scala/bin:$PATH
~
~
~
~
~
~
~
~
~
-- INSERT --
```

13] Enter **export PATH=/usr/local/scala/bin:\$PATH**

14] Hit the **ESC** key → Enter **:wq** ← to save file and exit

```
thicks -- -bash -- 134x11
Drs-MacBook-Pro:~ thicks$ source .bash_profile
Drs-MacBook-Pro:~ thicks$
```

15] This file is reloaded each time we restart the computer; you could restart yours if you like. We could manually cause this to re-fire by entering → **source .bash_profile**

```
thicks -- -bash -- 134x11
Drs-MacBook-Pro:~ thicks$ scala
```

16] The terminal provides one of the ways we can run scala on the mac. Enter **scala**

```
thicks -- java - scala -- 134x11
Drs-MacBook-Pro:~ thicks$ scala
Welcome to Scala 2.12.8 (Java HotSpot(TM) 64-Bit Server VM, Java 1.8.0_212).
Type in expressions for evaluation. Or try :help.

[scala> 2 * 3 + 4 * 5
res0: Int = 26

scala>
```

17] I am up and running. Scala provides an expensive calculator. Enter **2 * 3 + 4 * 5** ← you should get **26**.

```
thicks -- -bash -- 80x24
Drs-MacBook-Pro:~ thicks$ scala
Welcome to Scala 2.12.8 (Java HotSpot(TM) 64-Bit Server VM, Java 1.8.0_212).
Type in expressions for evaluation. Or try :help.

[scala> "Hello" + "Gang"
res0: String = HelloGang

[scala> :q
Drs-MacBook-Pro:~ thicks$
```

18] You could just close the terminal window when done, but most folks prefer to exit with either → **:q** or → holding the **Control Key** and pressing **C**