

# CS 125 – Getting set up with Java: a quick guide to setting up Java development on your own computer.

The naming conventions for Java have been changed several times over the language's history. We'll be using what is currently referred to as Java SE. SE stands for Standard Edition. There are other versions for everything from workstations to cell phones, but SE is all I'll be covering for now.

Presently, the most current stable version of Java SE is JDK 6 Update 14 (sometimes written as 6u14). The Java SE Development Kit (JDK) includes the Java Runtime Environment (JRE) and command-line development tools that are useful for developing applets and applications. Setup differs somewhat based on your operating system (OS). While this guide focuses on Windows, there is also information for Mac OS X & Linux/Solaris/Other.

## JDK & Windows

Windows users can get the JDK at:

<http://java.sun.com/javase/downloads/index.jsp>

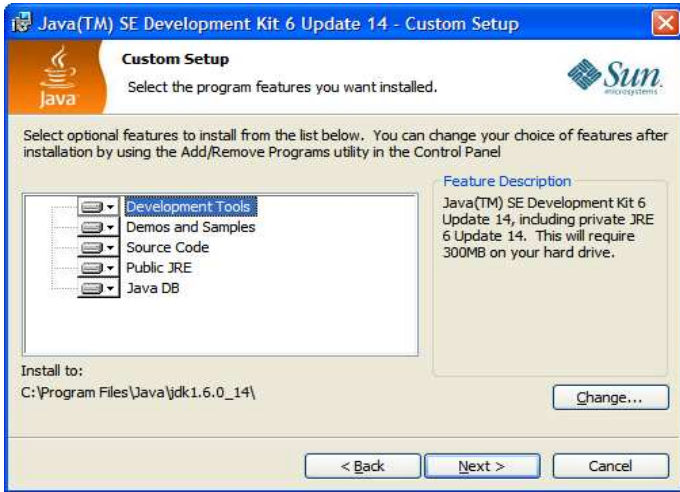
Locate the **JDK 6 Update 14** section & click the **download** button. Next, you'll need to select your platform. Note: there are multiple version for Windows, make sure you get the right one. For a regular Windows install, you'll want **Windows** and not **Windows x64**.

Next, you'll need to select the download method. I recommend downloading the installer directly (by clicking on the link called **jdk-6u14-windows-i586.exe**) and not using the **Download Selected with Sun Download Manager** button.

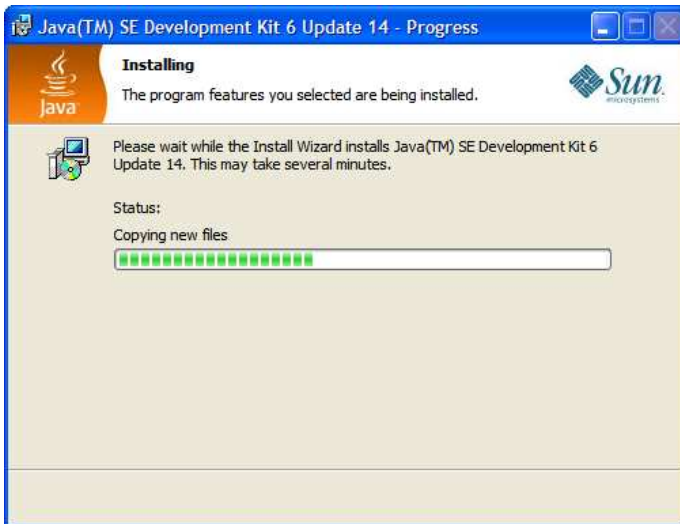


Next install the JDK. Please note, the installer can take a long time & may appear to freeze up at times – this is normal. Be patient & give it some time.

## JDK & Windows (continued)



After accepting the Terms Of Service, you'll come to a screen like the one on the left; I strongly recommend leaving any installation options on their default settings.



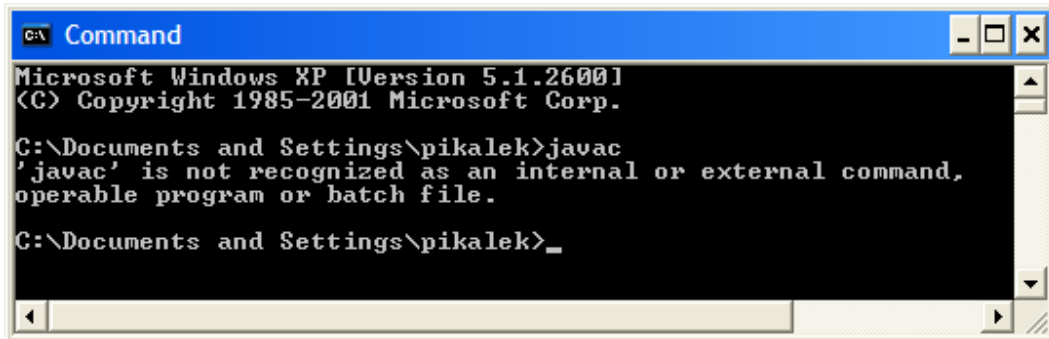
Prepare for more waiting...



Success! Click **Finish** & you'll be done with this part (the registration web page, if it comes up, is optional).

## JDK & Windows (continued)

Next, we'll check the install. Fire up a command prompt & try to execute the command **javac** (as seen below):

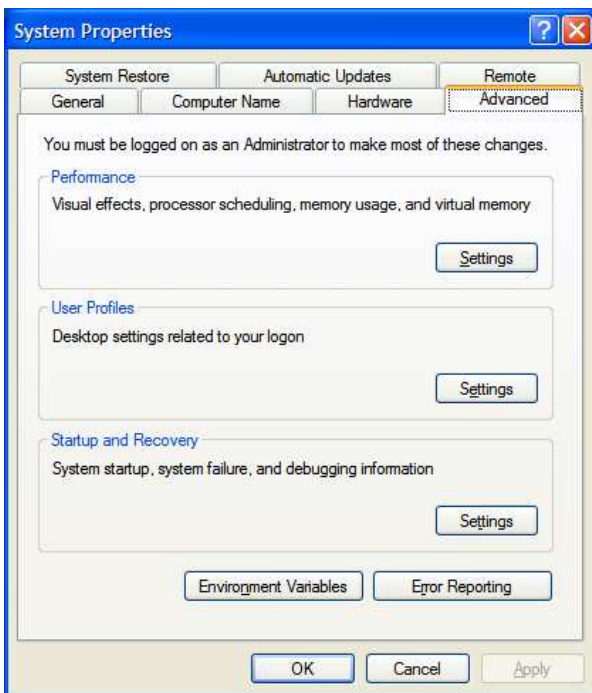


```
C:\> Command
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

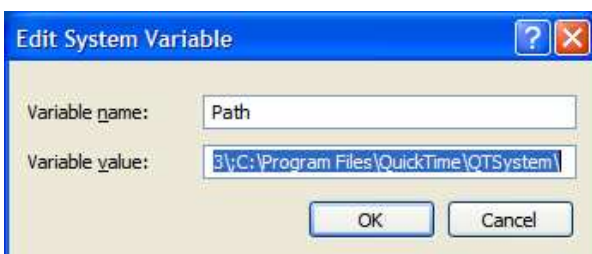
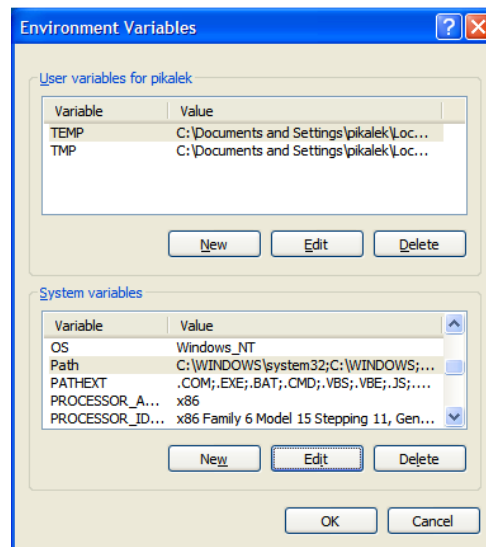
C:\Documents and Settings\pikalek>javac
'javac' is not recognized as an internal or external command,
operable program or batch file.

C:\Documents and Settings\pikalek>_
```

Hmmm, not quite what we want. If you get something like the result on the left, you'll need to update your path information.



Go to your **System Properties** (accessible by right clicking **My Computer**) and open the **Advanced** tab (seen on the left) & click **Environment Variables** to bring up the window shown below:



Scroll down in the **System variables** panel, locate **path** and click **Edit**. This should bring up the window shown to the left. If you've used the default installation settings, add:

**;C:\Program Files\Java\jdk1.6.0\_14\bin**

to the end of the **Variable value**. Don't forget the semicolon &

make sure you don't accidentally completely overwrite the current contents of the **Variable value** field. Note, if you have 64bit Windows, you may need to add **;C:\Program Files (x86)\Java\jdk1.6.0\_14\bin** instead.

```
Command
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

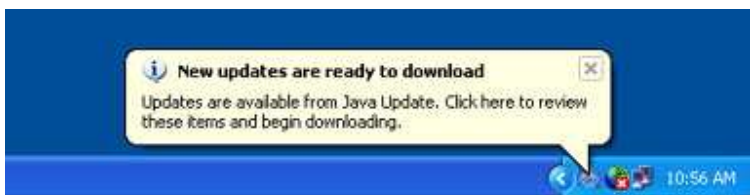
C:\Documents and Settings\pikalek>javac
Usage: javac <options> <source files>
where possible options include:
-g Generate all debugging info
-g:none Generate no debugging info
-g:<lines,vars,source> Generate only some debugging info
-nowarn Generate no warnings
-verbose Output messages about what the compiler is doing
-deprecation Output source locations where deprecated APIs are used
-processorpath <path> Specify where to find user class files and annotation processors
-cp <path> Specify where to find user class files and annotation processors
-sourcepath <path> Specify where to find input source files
-bootclasspath <path> Override location of bootstrap class files
-extdirs <dirs> Override location of installed extensions
-endorseddirs <dirs> Override location of endorsed standards path
-proc:<none,only> Control whether annotation processing and/or compilation is done
-processor <class1>[,<class2>,<class3>]...Names of the annotation processors to run; bypasses default discovery process
-processorpath <path> Specify where to find annotation processors
-d <directory> Specify where to place generated class files
-s <directory> Specify where to place generated source files
-implicit:<none,class> Specify whether or not to generate class files for implicitly referenced files
-encoding <encoding> Specify character encoding used by source files
-source <release> Provide source compatibility with specified release
-target <release> Generate class files for specific VM version
-version Version information
-help Print a synopsis of standard options
-?key[=value] Options to pass to annotation processors
-X Print a synopsis of nonstandard options
-J<flag> Pass <flag> directly to the runtime system

C:\Documents and Settings\pikalek>_
```

Open a new command window & try to execute the command **javac** again. It might take a couple of seconds, but you should get a long response explaining all the command line options for **javac**, similar to the one shown on the left.

If not, or if you want additional information on the installation process and updating path variables, refer to:

<http://java.sun.com/javase/6/webnotes/install/jdk/install-windows.html#Environment>



Note: Java may occasionally try to update itself as shown to the left. It's important to keep Java up to date. If you have an out of date version with a security flaw, it's very possible for malicious web pages to exploit the problem & compromise your system.

For more information on configuring Java's autoupdates, refer to:  
[http://www.java.com/en/download/help/java\\_update.xml](http://www.java.com/en/download/help/java_update.xml)

## JDK & Mac OS X

Mac OS X comes with the Java runtime environment & JDK installed! You can check for updates here:

<http://developer.apple.com/java/>

## JDK & Linux & Solaris

Linux & Solaris users can get the JDK at:

<http://java.sun.com/javase/downloads/index.jsp>

Locate the **JDK 6 Update 14** section & click the **download** button. Next, you'll need to select your platform. Note: there are multiple versions for each OS, make sure you get the right one.

## JDK & Other Operating Systems

If you have an OS not covered here and don't know how to install the JDK for it, let me know & I'll see what I can do for you.

# Installing BlueJ (Windows, Mac & Linux)

Once you have the JDK installed, you'll probably want to install BlueJ, the IDE we will be using in class. To get it, go to:

<http://www.bluej.org/>

Click the **Download** link, and then click the link that corresponds to your OS (if you have an OS not covered here and don't know how to install the JDK for it, let me know & I'll see what I can do for you). Once you have the installation application, run it; once again, I recommend leaving any installation options on their default settings.

The first time you run BlueJ, it will likely ask you to select the virtual machine (VM) you want it to use. The standard Java VM should appear as an option – select that and you should be good to go.