Java Installation Instructions for Windows
CS 2334 – Fall 2007

If you have an old version of Java installed on your computer, remove it before beginning this installation. To remove software go to Start – Settings - Control Panel - Add or Remove Programs. The location may be slightly different on systems other than Windows 2000/XP.

It is best to perform this installation exactly in the order specified, particularly if you're not very comfortable installing software.

1. Installing the Java 2 Standard Edition 5.0 JDK

The first step is to install the Java 2 Standard Edition 5.0 Java Development Kit.

Download the software:
1. Go to http://java.sun.com/javase/downloads/index_jdk5.jsp using your web browser.

2. Scroll down to the section *JDK 5.0 Update 12* and click on *Download*. **Do not download the JRE**. JRE stands for Java Runtime Environment, and is used by people who use Java programs, but don't create them. The JRE is not sufficient for this class.

3. Before you can download the software, you must agree to the license agreement. To review the license agreement, click on *Review License Agreement*. This will display the license agreement. Once, you have reviewed the agreement click on *Accept License Agreement*. If you do not accept the license agreement, you will not be allowed to download the required software.

4. Click on *Windows Offline Installation Multi-language*. This is the first item listed under the Windows Platform section of the page.

5. In the File Download dialog box, click on Save.

6. Save the file to your desktop. Once the software is installed, the file you are about to save can be safely removed from your desktop. Do not change the name of the file. Accept the default that is suggested by the program. *However, you may want to save this file in order to easily re-install the software in the future if you encounter computer problems.*

7. Another dialog box will come up and the file will be transferred.

8. Go to your desktop and double click on the file you just saved.

To complete the installation:
1. An InstallShield Wizard will be displayed on your screen. When the progress bar completes, a License Agreement will be displayed.

2. Read the licensing agreement, and select *"I accept the terms in the license agreement."* if you are willing to abide by it. To continue the installation click on Next>.

3. Accept the suggested components and suggested destination folder by clicking on Next>. This will start the installation.

4. Next, a window will display that will guide you through the install process. Accept the suggested components and installation folder by clicking on Next>.

5. Accept the suggested browser, if you wish to. Click Next>. This will finish the installation.

6. When the installation is complete, click on Finish to exit the wizard.

7. You may need to restart your computer, depending on what version of Windows you are running. If the program suggests it, go ahead and do it now.

2. Set the Environment Variables

This is the hardest part of this task. It is extremely important that you carefully and precisely follow the instructions given below.

When we install software, like the Java SDK, we have to tell the operating system (usually Windows) where the software is stored. Environment variables are the way that this communication takes place. These are the kinds of things that programmers have to know about that computer users sometimes haven't seen before. Try to follow the instructions for your version of Windows and ask for help if you need it.

There is one environment variable that needs to be set. The PATH environment variable is used for the java compiler (javac) and the runtime environment (java). This needs to be set in order for programs to compile and execute correctly.

Note, that in the newer versions of Java (at least since version 1.4) it is not necessary to set a CLASSPATH environment variable unless you are using a custom Java API installed outside of the directory Java's Standard API Libraries are installed in. In this class, we will not be using custom APIs, so you do not need the CLASSPATH set.

✓ *If you have a CLASSPATH environment variable from a previous semester you will need to remove or delete it.*

2.1. Windows ME
From the start menu, choose programs, accessories, system tools, and system information. This brings up a window titled "Microsoft Help and Support". From here, choose the tools menu, then select the system configuration utility. Click the environment tab, select PATH and press the edit button. Now add the SDK to your path as described below for Windows NT, 2000 and XP.

After you've added the location of the SDK to your PATH, save the changes and reboot your machine when prompted.

2.2. Windows NT, Windows 2000, and Windows XP

On Windows 2000 or Windows NT Choose Start, Settings, Control Panel, and double-click System. On Windows NT, select the Environment tab; on Windows 2000 select the Advanced tab and then Environment Variables.

On Windows XP, right click on My Computer, click on Properties, click the Advanced Tab and click Environment Variables.

Look for "Path" in the User Variables and System Variables. If you're not sure where to add the path, add it to the right end of the "Path" in the User Variables. A typical value for PATH is:
C:\Program Files\Java\jdk1.5.0_12\bin

Capitalization doesn't matter, but spaces do. Don't put in any extra spaces. Click "Set", "OK" or "Apply".

The PATH can be a series of directories separated by semi-colons (;). Microsoft Windows looks for programs in the PATH directories in order, from left to right.
The new path takes effect in each new Command Prompt window you open after setting the PATH variable.

2.3. Windows 98, Windows 95

To set the PATH permanently, open the AUTOEXEC.BAT file and add or change the PATH statement as follows:

Start the system editor. Choose "Start", "Run" and enter **sysedit**, then click **OK**. The system editor starts up with several windows showing. Go to the window that is displaying AUTOEXEC.BAT

Look for the PATH statement. (If you don't have one, add one.) If you're not sure where to add the path, add it to the right end of the PATH. For example, in the following PATH statement, we have added the **bin** directory at the right end:
PATH=C:\WINDOWS;C:\WINDOWS\COMMAND**;C:\Progra~1\Java\jdk1.5.0_12\bin**

Capitalization doesn't matter, but extra spaces do (!). The PATH can be a series of directories separated by semicolons (;). Microsoft Windows searches for programs in the PATH directories in order, from left to right.

To make the path take effect in the current Command Prompt window, execute the following:

C:> **c:\autoexec.bat**

To find out the current value of your PATH, to see if it took effect, at the command prompt, type:

C:> **path**

3. Install an Editor or IDE

Install your favorite Java Integrated Development Environment (IDE)or Editor. ***In this class, we do not teach how to use a specific IDE or editor.*** Some good editors to look at are Eclipse, JBuilder, JGrasp, NetBeans, and. A search on Google.com for any of these names should list the homepage for the editor.

Not knowing how to use the IDE you have installed is not an acceptable reason for not completing and/or submitting your project. You should still be able to use a text editor (e.g., notepad) to edit your programs and the command line to compile and test them.

4. Compiling Your Projects

You must be able to compile and execute your programs from the MS-DOS command line. To do this you need to bring up a MS-DOS command window (in most version of windows you can *Run* the command "cmd", "command", or "command.com" from the Start Menu to open a command window). Then *cd* to the directory that contains your project. To compile your project, you should be able to type in and execute the following command *(assuming that you have Java correctly installed)*:

    javac <name of your java file or *.java>

To run your project you should be able to type in and execute the following command:

    java <name of the main class of your Java program without the .class extension>

For example, if you have a class named Hello that prints a message to the screen in the file Hello.java, you would run the following commands to compile and execute the program:

    javac Hello.java
    java Hello