## Supplement I.B: Installing and Configuring JDK 7

## For Introduction to Java Programming Y. Daniel Liang

This supplement covers the following topics:

- Downloading JDK 7 (§1.2)
- Installing JDK 7 (§1.3)
- Configuring JDK (§1.3)
- Verifying Configurations (§1.4)

#### 1.1 Downloading JDK 7

You can download the latest JDK 7 from http://www.oracle.com/technetwork/java/javase/downloads/inde
x.html. Consult with your instructor to download an
appropriate version and update.

#### 1.2 Installing JDK 7 on Windows

Assume that you have downloaded the file named <u>jdk-7-</u> <u>windows-i586.exe</u> (for 32-bit Windows) or <u>jdk-7-windows-</u> <u>x64.exe</u> (for 64-bit Windows). Since Java is frequently updated, the file you have downloaded may be named slightly differently. For example, you may get a different name such as jdk-7u1-windows-i586.exe.) Follow the steps below to install JDK 7:

- Double click <u>jdk-7-windows-i586.exe</u> to run the installation program. You will see the JDK 7 Setup dialog displayed, as shown in Figure 1.
- 2. Click *Next* to display the JDK Custom Setup dialog, as shown in Figure 2.
- 3. You may install JDK in a custom directory. For simplicity, don't change the directory. Click *Next* to install JDK.
- 4. After installation completed, the Complete dialog is displayed in Figure 3. Click *Finish* to close the dialog.



The JDK 7 Setup dialog is displayed for setting up JDK 7.

| 🛃 Java(TM) SE Development Kit 7 - Custom Setup  |   |  |  |  |  |
|---|---|--|--|--|--|
| الله المعالم ال   | ORACLE  |  |  |  |  |
| Select optional features to install from the list below. You can change your choice of features after<br>installation by using the Add/Remove Programs utility in the Control Panel |   |  |  |  |  |
| Development Tools<br>Demos and Samples<br>Source Code   | Feature Description<br>Java(TM) SE Development Kit 7,<br>including private JRE 7. This will<br>require 180MB on your hard<br>drive. |  |  |  |  |
| Install to:<br>C:\Program Files\Java\jdk1.7.0\  |   |  |  |  |  |
| < <u>B</u> ack  | Next > Cancel   |  |  |  |  |

## Figure 2

The JDK Custom Setup dialog enables you to choose a custom directory for JDK files.

```
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| j🛃 Java(TM) SE Development Kit 7 - Complete   | ×      |
|---|--------|
| Java <sup>.</sup>   | ORACLE |
| Java(TM) SE Development Kit 7 Successfully Installed  |        |
| Product Registration is FREE and includes many benefits:<br>* Notification of new versions, patches, and updates<br>* Special offers on Orade products, services and training<br>* Access to early releases and documentation |        |
| When you click Finish, product and system data will be collected and the JDK produ<br>registration form will be presented. If you do not register, none of this information<br>be saved.                                      |        |
| For more information on what data Registration collects and how it is managed and<br>used, see the Product Registration Information Page.   |        |
| Product Registration Information  |        |
| Einish  |        |

The Complete dialog indicates a successful installation.

#### 1.3 Configuring JDK 7 on Windows

To configure JDK is to make it available in the operating system so that Windows can find your JDK commands such as **javac**.

#### 1.3.1 Configuring JDK on Windows NT, 2000, XP, and ME

To configure JDK on Windows NT, 2000, ME, and XP, set the environment variables as follows:

- Right-click the My Computer icon on your desktop to display a context menu. Choose Properties from the context menu to open the System Properties window, as shown in Figure 4. (This screen shot is taken from Windows XP. For Windows 2000, NT, and ME users, the System properties window may look slightly different.)
- 2. In the System properties window, click *Environment Variables* in the Advanced tab to display the Environment Variables window, as shown in Figure 5.

| tem Properties                   |   |                         |                   |                    |
|----------------------------------|---|-------------------------|-------------------|--------------------|
| System Res<br>General            | tore Computer Nam                         | Automatic Upda<br>ne Ha | ates  <br>ardware | Remote<br>Advanced |
| -Performance                     | ged on as an Admir<br>processor schedulir |                         |                   |                    |
|                                  |   |                         |                   | <u>S</u> ettings   |
| User Profiles                    |   |                         |                   |                    |
| Desktop settin                   | gs related to your lo                     | gon                     |                   |                    |
|                                  |   |                         |                   | S <u>e</u> ttings  |
| Startup and Re<br>System startup | covery<br>, system failure, and           | d debugging info        | ormation          |                    |
|                                  |   |                         |                   | Se <u>t</u> tings  |
|                                  | Environme                                 | nt Variables            | E <u>r</u> ror    | Reporting          |
|                                  |   | ОК                      | Cancel            | Apply              |

The System Properties window contains system information.

| wironment Variabl  | les 1  | ? × |  |
|--|--|-----|--|
| User variables for Lia   | ng   |     |  |
| Variable Value   |  |     |  |
| CVSROOT  | c:\temp\cvs  | -   |  |
| INCLUDE  | C:\Program Files\Microsoft Visual Studi  |     |  |
| LIB  | C:\Program Files\Microsoft Visual Studi  |     |  |
| PATH   | C:\Documents and Settings\Liang\My D   | _   |  |
| TEMP   | C:\Documents and Settings\Liang\Local  | -   |  |
| THE  |  | - 1 |  |
|  | New Edit Delete  |     |  |
|  |  |     |  |
| System variables —   | 1  |     |  |
| Variable   | Value  |     |  |
|  | COL8143  |     |  |
| COLLECTIONID<br>ComSpec  | COL8143<br>C:\WINDOWS\system32\cmd.exe   |     |  |
| COLLECTIONID<br>ComSpec<br>CVSROOT                             | COL8143<br>C:\WINDOWS\system32\cmd.exe<br>c:\temp\cvs  |     |  |
| COLLECTIONID<br>ComSpec<br>CVSROOT<br>FP_NO_HOST_C             | COL8143<br>C:\WINDOWS\system32\cmd.exe<br>c:\temp\cvs<br>NO  |     |  |
| COLLECTIONID<br>ComSpec<br>CVSROOT                             | COL8143<br>C:\WINDOWS\system32\cmd.exe<br>c:\temp\cvs  |     |  |
| COLLECTIONID<br>ComSpec<br>CVSROOT<br>FP_NO_HOST_C<br>HMSERVER | COL8143<br>C:\WINDOWS\system32\cmd.exe<br>c:\temp\cvs<br>NO<br>https://wwss1proa.cce.hp.com/wuss/s |     |  |

The Environment Variables window enables you to set user and system variables.

3. You can set or modify user variables or systems variables. User variables affect the individual users and system variables affect all the users in the system. In the User variables section, select PATH and click Edit if PATH is already a user variable. Otherwise, click New to display the New User Variable window as shown in Figure 8.

| Edit User Variable      |  |
|-------------------------|--|
|                         |  |
| Variable <u>n</u> ame:  | РАТН   |
| Variable <u>v</u> alue: | c: \Program Files \java \jdk1.7.0 \bin;c: \pytho |
|                         | OK Cancel  |
|                         | OK Cancer  |

## Figure 8

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The New User Variable enables you to set a new user variable and its value.

4. Type <u>PATH</u> in the Variable field and <u>c:\Program</u> <u>Files\Java\jdk1.7.0\bin;%path%</u> in the Variable Value field, as shown in Figure 4. Click OK.

NOTE: You don't have to reboot the computer, but you have to open a new command window to use JDK commands.

NOTE: If you download a new version or an update version, the directory name **jdk1.7.0** may be slightly different. For example, the directory name is **jdk1.7.0\_02** for JDK 7 Update 2.

#### 1.3.2 Configuring JDK on Windows Vista

Follow the steps below to configure JDK on Windows Vista:

1. Left-click on the Start button and choose Control Panel > System and Maintenance > System > Advanced system settings. At User Account Control, type an administrator password and then click OK to display the System Properties window.

2. Same as Steps 2-4 in Section 1.3.1.

#### 1.3.3 Configuring JDK on Windows 7

Follow the steps below to configure JDK on Windows 7:

1. Left-click on the Start button and choose Control Panel > System and Secutrity > System > Advanced system settings to display the System Properties dialog box.

2. Same as Steps 2-4 in Section 1.3.1.

#### 1.4 Verifying Configurations

To verify whether JDK 7 is configured correctly, type **javac** -version from the command prompt, as shown in Figure 8.

| Administrator: Command Prompt                 |  |
|---|--|
| C:\Users\Daniel>javac -version<br>javac 1.7.0 |  |
| C:\Users\Daniel>_                             |  |
| ▲   |  |

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The **javac** command is not found if JDK is not properly configured.