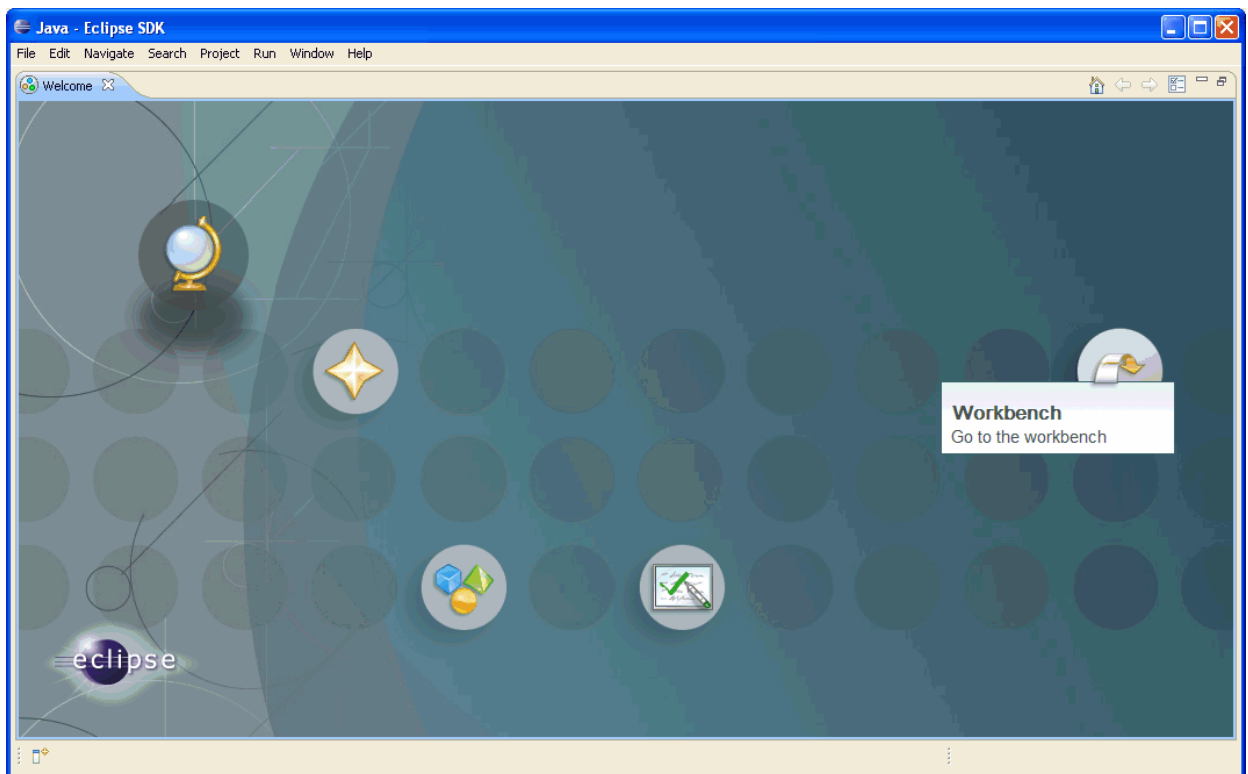


How to use the *Eclipse* IDE for Java Application Development

Java application development is supported by many different tools. One of the most powerful and helpful tool is the free *Eclipse* IDE (IDE = Integrated Development Environment). To download the *Eclipse* IDE, go to <http://www.eclipse.org>. Click on **Downloads** and then select the most recent stable or release version of the *Eclipse* SDK for your PC platform.

Eclipse requires Java to run, so if you don't already have Java installed on your machine, first install a Java 6 SDK. Please note: The embedded system-on-module eSOM/2586 MAX-Linux comes with a Java 6 runtime environment. Your PC as a development system needs the same Java version. You can download Java SDKs from <http://java.sun.com>. Look for the Java 6 J2SE SDK (Software Development Kit).

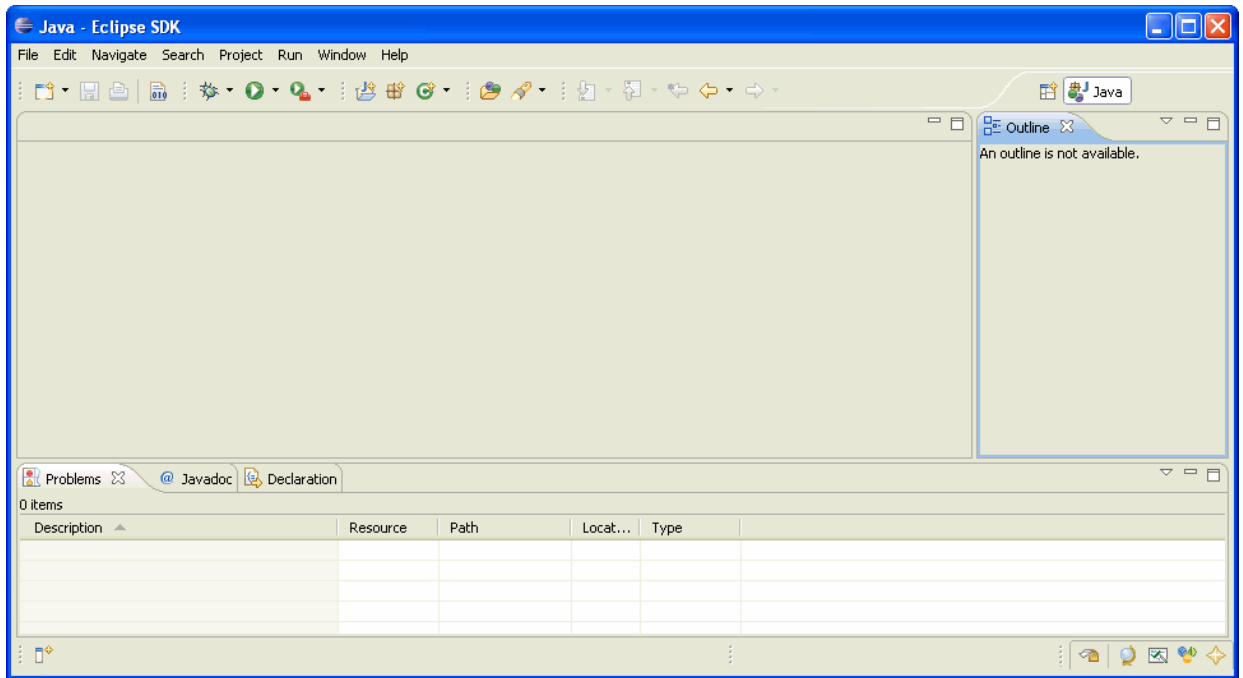
- **1. Step:** Download the *Eclipse* SDK file to a temporary directory. The download file comes as a .ZIP (e.g. *eclipse-SDK-3.4.1-win32.zip*). Use your archive program to unpack *Eclipse* into a permanent directory (e.g. *C:\Program Files\eclipse*). Then run the *Eclipse* launcher program (e.g. *C:\Program Files\eclipse\eclipse.exe*) to bring up the IDE.



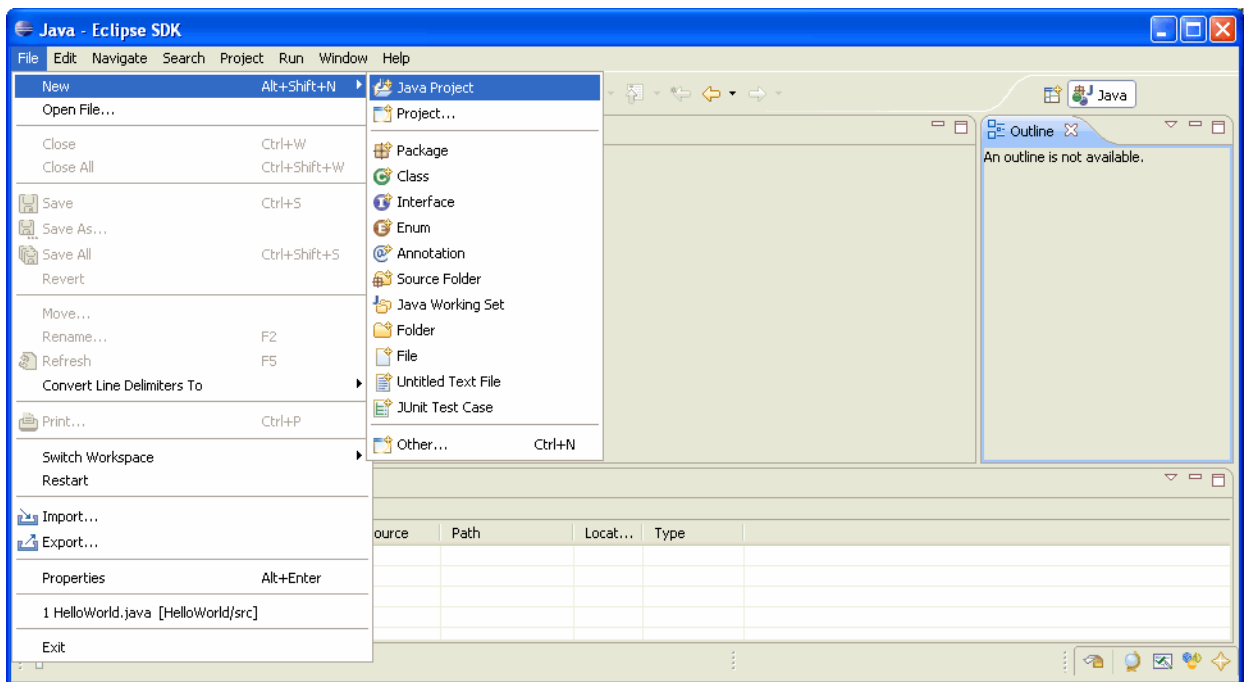
Eclipse comes up with a Welcome screen. This screen provides information for new users, examples and tutorials.

- **2. Step:** Click to the Workbench icon within the *Eclipse* Welcome screen. After that you see the *Eclipse* main window, also called the **workbench**.

Please note: The first time you start *Eclipse*, you will be prompted for the location of your workspace. The workspace is the location where your files and settings will be stored.

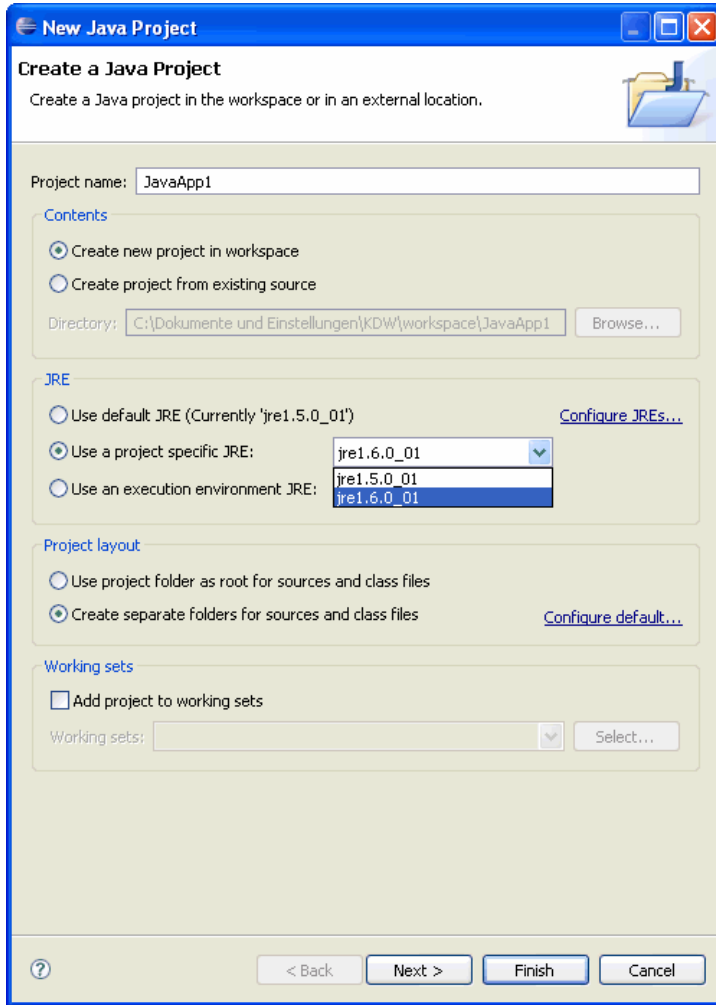


- **3. Step:** Open the *Eclipse File* menu. Then select *New* to create a new Java project. After that click to the item *Java Project* within the project menu item list. This opens the *New Java Project* dialog box.

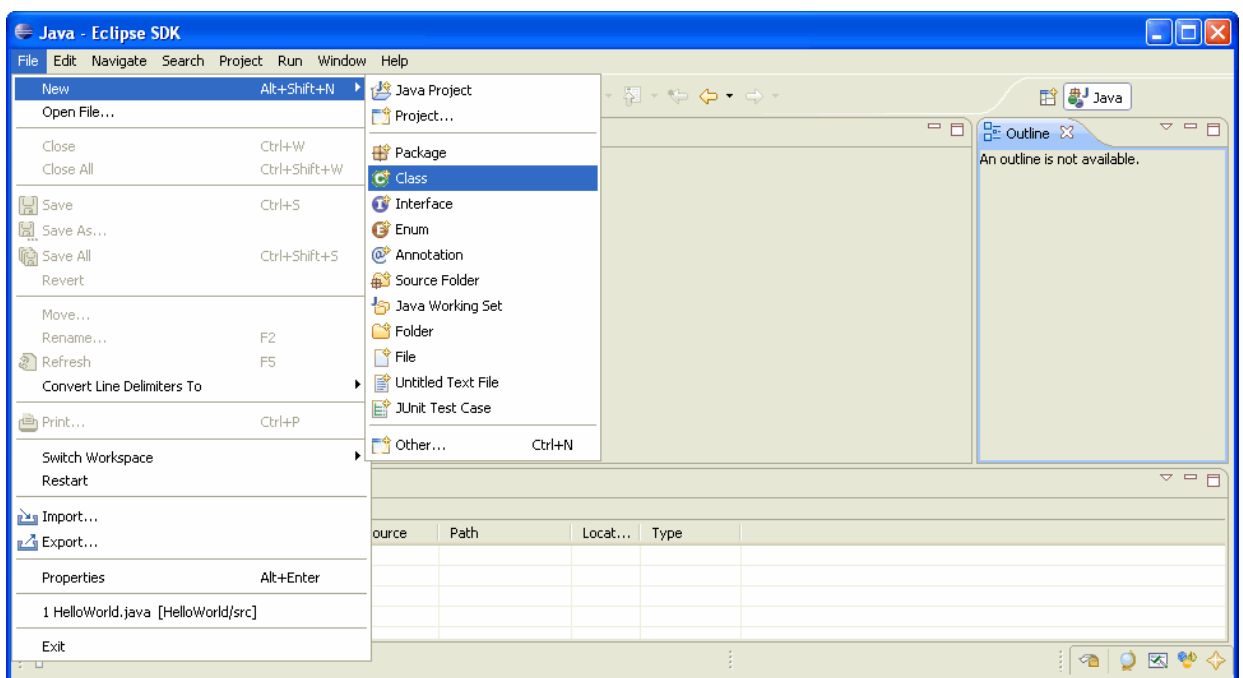


- **4. Step:** In the *New Java Project* dialog box, first please enter a project name (e.g. *JavaApp1*). Then select the Java 6 Run Time Environment (JRE) for this project (see *Use a project specific JRE*). Finally press *Finish*.

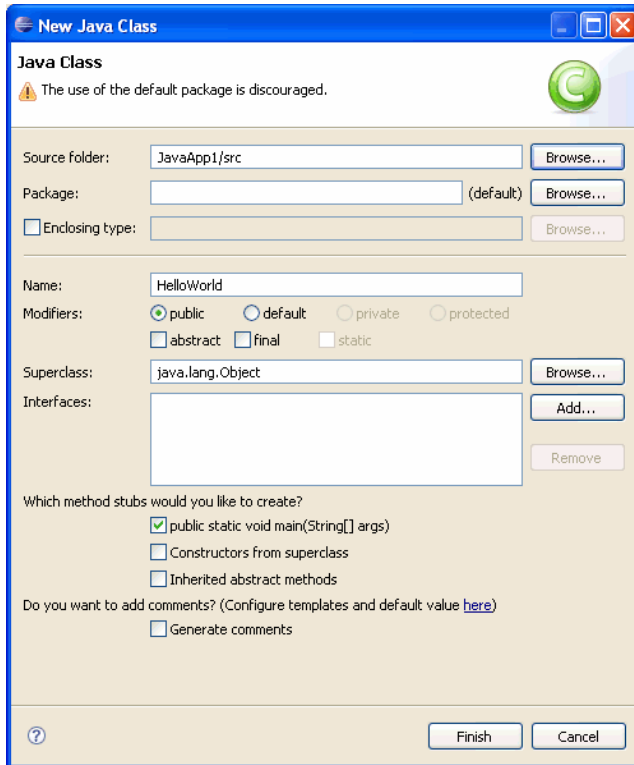
Please note: The embedded system-on-module eSOM/2586 MAX-Linux comes with a Java 6 runtime environment. It is necessary to tell *Eclipse* that this new project is for Java 6.



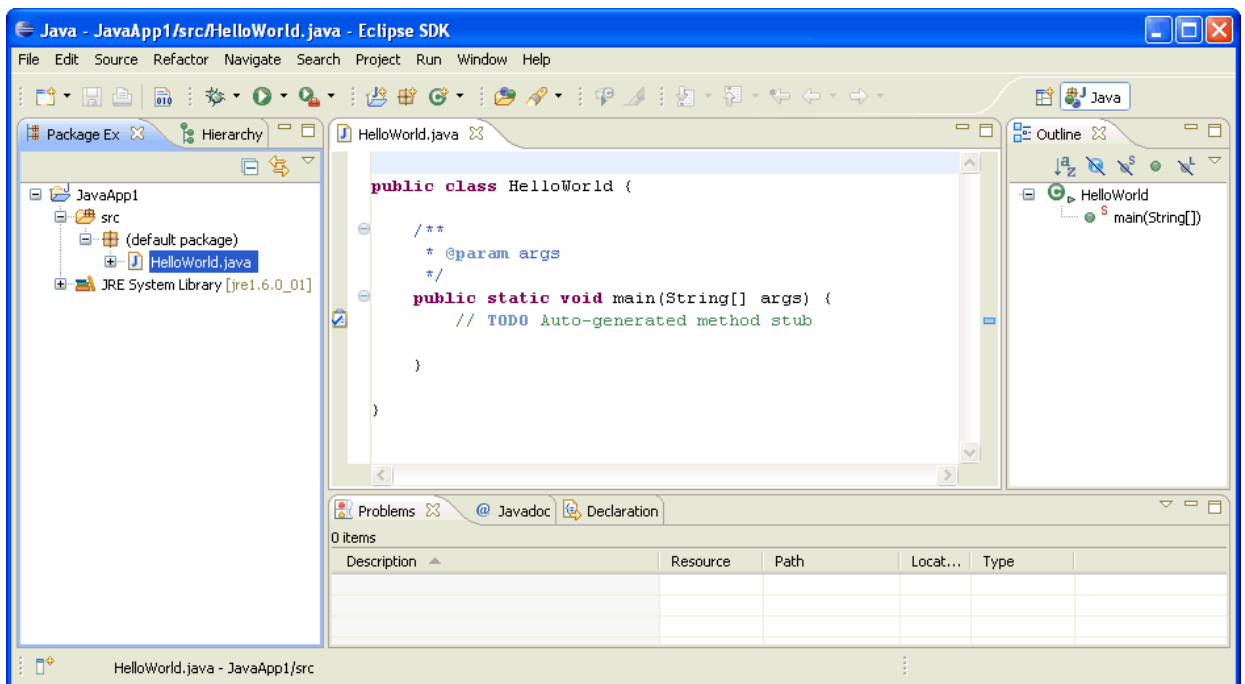
- **5. Step:** Please open the *Eclipse File* menu again. Then select *Class* to add a new Java class. This opens the *New Java Class* dialog box.



- **6. Step:** In the *New Java Class* dialog box first select the source folder for the class. Then enter the name *HelloWorld* for the new class. Make sure that in the *Which method stubs would you like to create?* area the *public static void main(String[] args)* check box is checked. Finally press *Finish* to create the new class.



- **7. Step:** The *Eclipse* workbench now contains an editor window with the Java source code template for the new *HelloWorld* class.

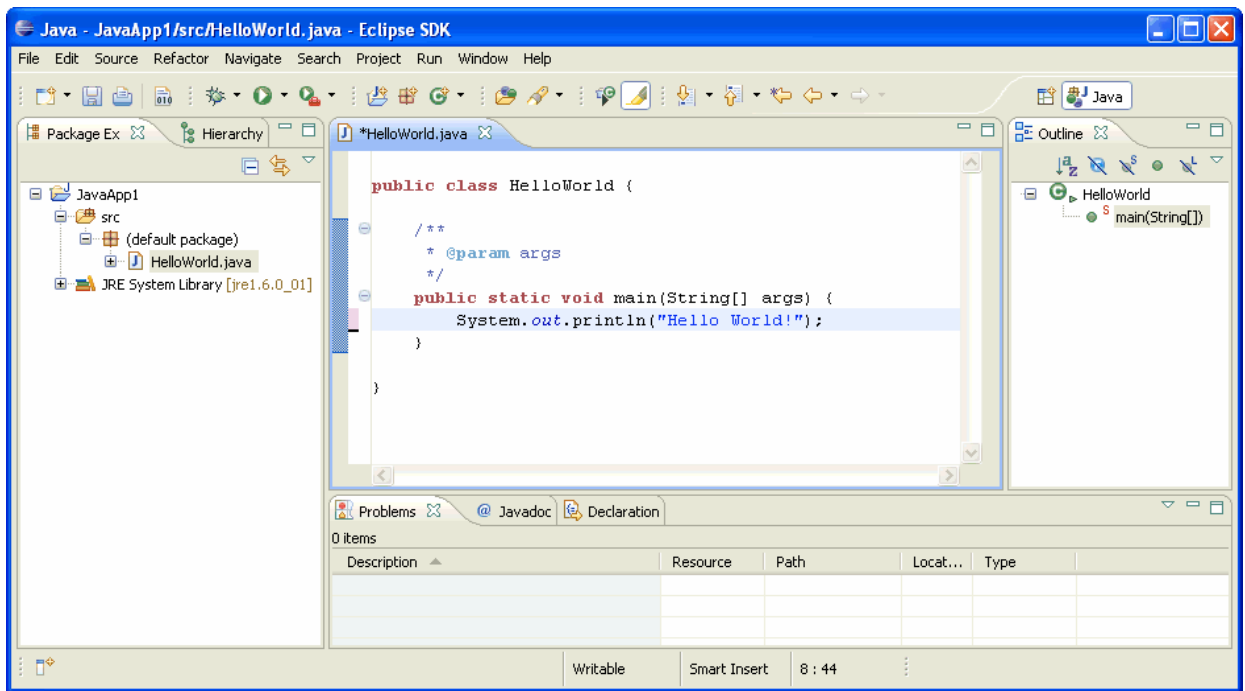


Within the *Eclipse* editor window please replace the following Java source code line

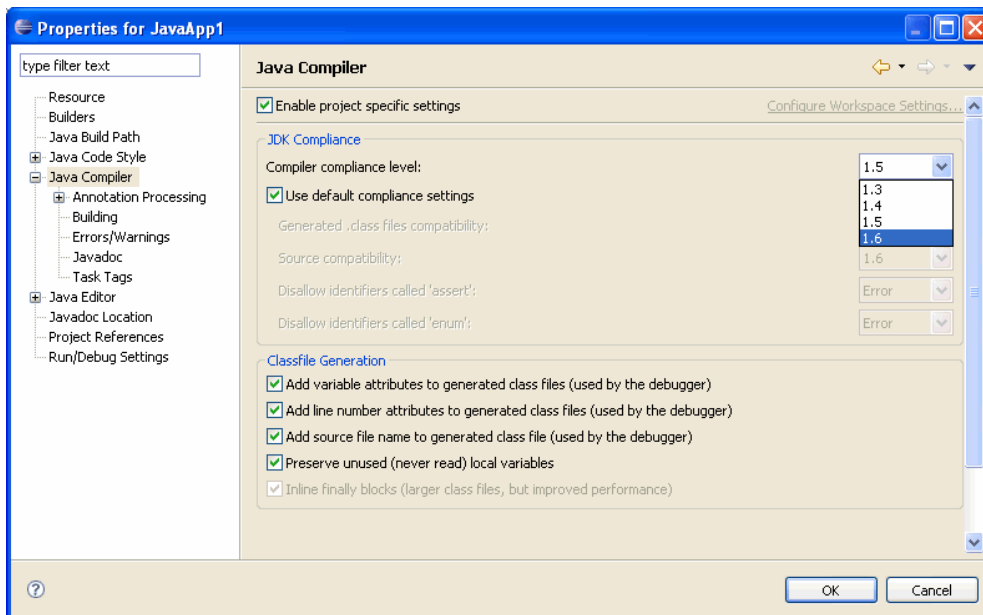
```
// TODO Auto-generated method stub
```

with

```
System.out.println("Hello World!");
```

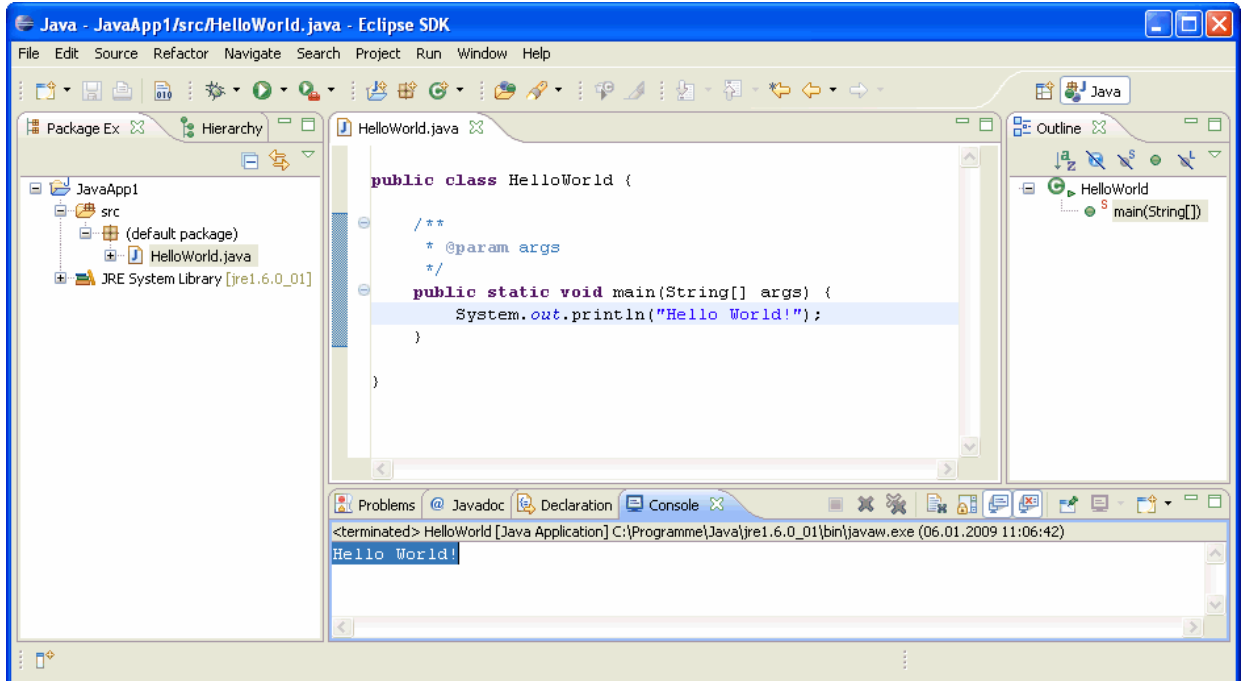


- **8. Step:** Please choose the *Project => Properties* menu item and select the compiler compliance level 1.6 (this compiler level belongs to Java 6) within the *Properties for JavaApp1* dialog box (see *JDK Compliance*).



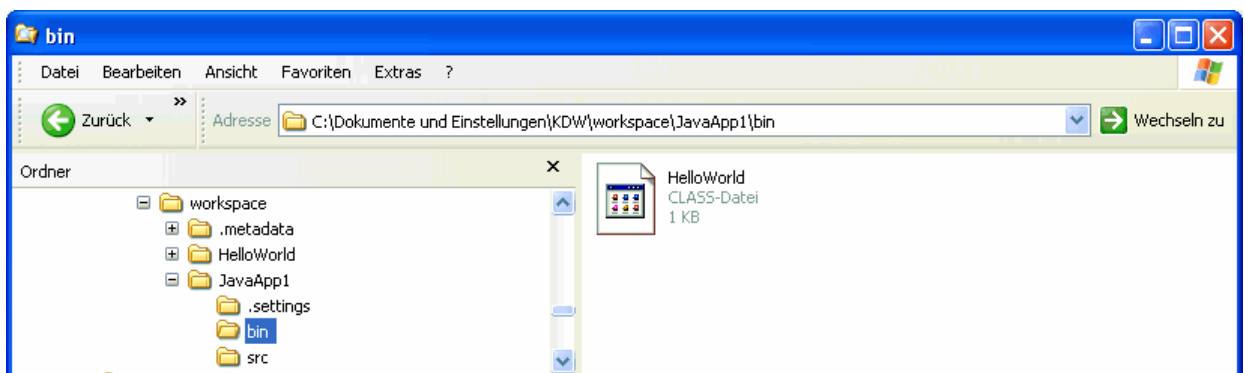
- **9. Step:** Now choose the *Run => Run* menu item. This starts the execution of your Java

application within the *Eclipse* IDE. Watch the *Hello World!* output within the console window.



Please note: The Java source code of this sample is stored within the file *HelloWorld.java*. It is not necessary to compile the source code to the class file *HelloWorld.class* over a menu item or a shortcut. The *Eclipse* IDE compiles automatically after each file save operation or before a run.

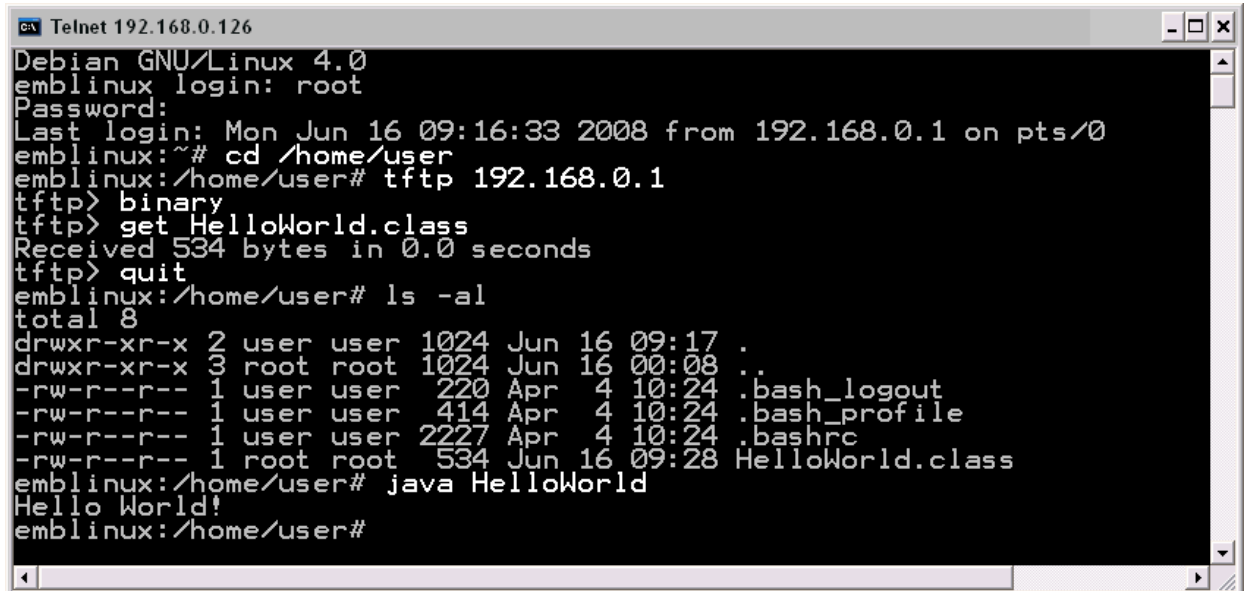
The executable *HelloWorld.class* class file is located in the *bin* directory of your project (in this sample the directory `...\\workspace\\JavaApp1\\bin`). Please transfer this new class file to the eSOM/2586.



- **10. Step:** Use TFTP and a Telnet session for transferring the class file. Run the class file on the eSOM/2586. Use the following command sequence for this job:

```
cd /home/user
tftp 192.168.0.1
binary
```

```
get HelloWorld.class
quit
java HelloWorld
```



```
ca Telnet 192.168.0.126
Debian GNU/Linux 4.0
emblinux login: root
Password:
Last login: Mon Jun 16 09:16:33 2008 from 192.168.0.1 on pts/0
emblinux:~# cd /home/user
emblinux:/home/user# tftp 192.168.0.1
tftp> binary
tftp> get HelloWorld.class
Received 534 bytes in 0.0 seconds
tftp> quit
emblinux:/home/user# ls -al
total 8
drwxr-xr-x  2 user user 1024 Jun 16 09:17 .
drwxr-xr-x  3 root root 1024 Jun 16 00:08 ..
-rw-r--r--  1 user user  220 Apr  4 10:24 .bash_logout
-rw-r--r--  1 user user  414 Apr  4 10:24 .bash_profile
-rw-r--r--  1 user user 2227 Apr  4 10:24 .bashrc
-rw-r--r--  1 root root  534 Jun 16 09:28 HelloWorld.class
emblinux:/home/user# java HelloWorld
Hello World!
emblinux:/home/user#
```

That is all.