Java Application: LineCount

Written by: Keith Fenske, http://kwfenske.github.io/
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Description

LineCount is a Java 1.4 console application to count the number of characters and lines in a plain text file such as source code. Put one or more file names on the command line:

```
java  LineCount1  x.txt
```

Text lines may end with a carriage return (CR or 0x0D), a line feed (LF or 0x0A), or CR followed by LF. Having LF by itself is more commonly called a "newline" character or NL. If a file has a different character set than your system's default encoding, you should put the name of a character set as the "-e" option. For example, UTF-8 is very popular with web pages:

```
java  LineCount1  -eUTF-8  x.txt
```

There is no graphical interface (GUI) for this program; it must be run from a command prompt, command shell, or terminal window. See the "-?" option for a help summary.

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Installation

You must have the Java run-time environment (JRE) installed on your computer. LineCount was developed with Java 1.4 and should run on later versions. It may also run on earlier versions, but this has not been tested. You can download the JRE from Oracle (formerly Sun Microsystems):

JRE for end users: http://www.java.com/download/
SDK for programmers: http://www.oracle.com/java/ or the OpenJDK builds
IDE for programmers: http://www.eclipse.org/ or http://www.netbeans.org/

Once Java is installed, you need to put the program files for LineCount into a folder (directory) on your hard drive. The name of the folder and the location are your choice, except it is easier if the name does not include spaces. Assume that files will go into a "C:\Java" folder. Then create the folder and unpack the Java *.class files into this folder (if you received the program as a ZIP file). The files look something like this:

ApacheLicense20.txt (12 KB, legal notice)
GnuPublicLicense3.txt (35 KB, legal notice)
LineCount1.class (6 KB, executable program)
LineCount1.doc (30 KB, this documentation in Microsoft Word format)
LineCount1.jar (4 KB, archive file with same class file inside)
LineCount1.java (14 KB, source code)
LineCount1.manifest (1 KB, main class manifest for archive file)
LineCount1.pdf (66 KB, this documentation in Adobe Acrobat format)
RunJavaPrograms.pdf (60 KB, more notes about running Java)
ShowCharSets2.java (3 KB, program to generate Java character set names)
ShowCharSets2.txt (19 KB, sample file with Java character set names)

To run the program on Windows, start a DOS command prompt, which is Start button, Programs, Accessories, Command Prompt on Windows XP/Vista/7. Change to the folder with the program files and run the program with a "java" command:

```
c:
cd \java
java  LineCount1
```

The program name "LineCount1" must appear exactly as shown; uppercase and lowercase letters are different in Java names. One complication may arise when trying to run this program. Java looks for an environment variable called CLASSPATH. If it finds this variable, then that is a list of folders where it looks for *.class files. It won't look anywhere else, not even in the current directory, unless the path contains "." as one of the choices. The symptom is an error message that says:

```
Exception in thread "main" java.lang.NoClassDefFoundError: LineCount1
```

To find out if your system has a CLASSPATH variable defined, type the following command in a DOS window:

```
set  CLASSPATH
```

To temporarily change the CLASSPATH variable to the current directory, use the following command line:

```
java  -cp  .  LineCount1
```

To permanently change the CLASSPATH, you must find where it is being set. This is in Control Panel, System, Advanced, Environment Variables on Windows XP/Vista/7.

Removal or Uninstall

To remove this program from your computer, delete the installation files listed above. If the folder that contained the files is now empty, you may also delete the folder ... if you created the folder, of course, not the system. If you created desktop shortcuts or Start menu items, then delete those too. There are no hidden configuration or preference files, and no information is stored in the Windows system registry. You don't need an "uninstall" program.

Restrictions and Limitations

Characters above U+FFFF in the Unicode standard will be counted twice, because they appear in Java as a pair of UTF-16 values.

file: LineCount1.doc 2024-09-29