

Java Application: EchoArgs

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Description

EchoArgs is a trivial Java 1.4 console application to print all command-line parameters on standard error, when debugging scripts or what MS-DOS calls “batch” files. Invoke this program instead of a real Java application until you are certain that a command file (script) is passing the correct arguments. There is no graphical interface (GUI) for EchoArgs; it must be run from a command prompt, command shell, or terminal window.

We usually think of applications as programs that run, do a job for us, and then finish. On large systems especially web servers, applications run for someone else, produce output that may be input for another program, and return status to the system. Each time an application is run, there may be different parameters telling the program what to do, and those parameters are provided as arguments on the command line. One of the easiest mistakes to make is passing the wrong parameters.

Assume that you have a serious Java application that is normally run with a command line similar to the following:

```
java SeriousApp27 //server/requests update 2007-10-31
```

Further assume that this command is generated from within a script that substitutes the current date. You want to see what is getting passed to “SeriousApp27” without actually running that program, because incorrect parameters might cause a problem. So you replace the name of the real application with EchoArgs:

```
java EchoArgs1 //server/requests update 2007-10-31
```

EchoArgs will nicely tell you that the command-line parameters are:

```
EchoArgs1 called, args.length = 3
EchoArgs1 args[0] = <//server/requests>
EchoArgs1 args[1] = <update>
EchoArgs1 args[2] = <2007-10-31>
```

Once this is correct, change your script to invoke the real program. EchoArgs only prints the arguments; it does not otherwise execute or interpret them. It may be used with any command file, but is most useful as a placeholder for other Java applications, because Java has its own way of parsing command lines and expanding file name patterns. (This document might be the longest explanation yet written for a trivial program.)

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Installation

You must have the Java run-time environment (JRE) installed on your computer. EchoArgs 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/getjava/>

SDK for programmers: <http://www.oracle.com/technetwork/java/>

IDE for programmers: <http://www.netbeans.org/>

Once Java is installed, you need to put the program files for EchoArgs 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)

EchoArgs1.class (1 KB, executable program)

EchoArgs1.doc (31 KB, this documentation in Microsoft Word format)

EchoArgs1.jar (1 KB, archive file with same class file inside)

EchoArgs1.java (4 KB, source code)

EchoArgs1.manifest (1 KB, main class manifest for archive file)

EchoArgs1.pdf (67 KB, this documentation in Adobe Acrobat format)

GnuPublicLicense3.txt (35 KB, legal notice)

RunJavaPrograms.pdf (60 KB, more notes about running Java)

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 EchoArgs1
```

The program name “EchoArgs1” 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: EchoArgs1
```

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 . EchoArgs1
```

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.

file: EchoArgs1.doc 2021-10-25