

# Java Application: LargestFiles

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

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## Description

LargestFiles is a Java 1.4 console application to find the biggest files in a list of file or folder names given on the command line. For example, if you have an NTFS disk drive mounted as F:\ on Microsoft Windows and want to know if all files are small enough to fit on a USB thumb drive (FAT32 format, maximum of 4 GB per file), then use the following command:

```
java LargestFiles2 F:\
```

Running this program on a Windows system image might produce the following output:

```
Found 2 largest files from 85,732 files in 13,827 folders.  
2,146,435,072 bytes for F:\pagefile.sys  
2,616,549,376 bytes for F:\hiberfil.sys
```

You may change the number of files reported. Options go before file names on the command line:

```
-n# = number of large files to report; default is -n5  
-s0 = do only given files or folders, no subfolders  
-s1 = -s = process files, folders, and subfolders (default)
```

See the “-?” option for a help summary:

```
java LargestFiles2 -?
```

There is no graphical interface (GUI) for this program; it must be run from a command prompt, command shell, or terminal window. Run time will depend upon how many files and folders are searched. Most operating systems protect some folders, and this program treats those folders as empty. The code is a template for simple applications that process files, folders, and subfolders.

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## Installation

You must have the Java run-time environment (JRE) installed on your computer. LargestFiles 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 LargestFiles 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)

LargestFiles2.class (5 KB, executable program)

LargestFiles2.doc (30 KB, this documentation in Microsoft Word format)

LargestFiles2.jar (4 KB, archive file with same class files inside)

LargestFiles2.java (14 KB, source code)

LargestFiles2.manifest (1 KB, main class manifest for archive file)

LargestFiles2.pdf (67 KB, this documentation in Adobe Acrobat format)

LargestFiles2Data.class (1 KB, helper class for main program)

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 LargestFiles2
```

The program name “LargestFiles2” 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: LargestFiles2
```

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 . LargestFiles2
```

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.

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file: LargestFiles2.doc 2021-10-25